Health Centers in Trenton and Newark: Building New Jersey's Primary Care Safety Net

Feasibility Study of Trenton, New Jersey

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and

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Executive Summary

The City of Trenton is both culturally and racially diverse with the significant challenges of high poverty rates, under and unemployment, and a crime rate that is out of control. Trenton has been actively engaged for a number of years in attempting to put in place a solution to the under treatment of its neediest citizens with respect to their healthcare. Community services for these underprivileged citizens are centered around community agencies; healthcare services are centered in one Federally Qualified Health Center and, at present, two safety net hospitals. Although attempts have been made to integrate these services and coordinate them, the local marketplace lacks sufficient financial resources to support all the necessary services required by Trenton's very needy population at anywhere near sustainable levels. As a result, community/healthcare services are forced to aggressively compete for insufficient resources setting up an environment where cooperation and team effort are very difficult to achieve. The resolution of this competitive environment is an essential factor to improving the health status of Trenton residents.

One of the earliest organized attempts at integration of healthcare services in the state was the Trenton Health Team. It brought all of the parties involved in healthcare to the table with the objective of improving care, lowering cost and increasing access for the Trenton population. The primary focus was to have non-emergent/primary care use of emergency rooms in the City reduced or eliminated. The mixed results of these efforts seems to be centered upon the competitive environment rather than a lack of will of the participants.

Enhancing primary care while improving access to behavioral health services in Trenton needs to be the focus of any healthcare improvement strategy for the City. Abundant literature demonstrates the effectiveness and quality of Nurse Practitioner care. To meet the primary care needs, the patient centric care provided by nurse practitioners would be essential to serving the complex populations found in Trenton's underserved, low income neighborhoods.

This feasibility study was undertaken to help address the need for a more comprehensive primary care infrastructure in Trenton by assessing the feasibility of establishing nurse practitioner led healthcare services in Trenton. Using interviews, surveys, focus groups, and extensive research, this feasibility study provides a community health needs assessment, as well as summarizes the perspectives of patients and leaders in the community and healthcare industry. There is general agreement that more healthcare services need to be provided in Trenton with primary care and behavioral health the most needed services. Trenton has defined neighborhoods but does not seem to have the neighborhood identity issues or bonding found in many urban environments. Community, business and foundation leaders in Trenton express support for expanding services to Trenton's needy population but few seem to have access or willingness to apply sufficient resources over a sufficient timeframe to that effort. There is significant reluctance to providing resources for ongoing clinical care and efforts by the City of Trenton to do the same have been unsuccessful.

A review of legal and regulatory constraints on APN-led practices highlights the challenge of structuring a primary care practice that is nurse centric. Although legal structures do exist for APN-led practice, competent legal advice is essential in creating innovative models for practice to avoid violating corporate practice of medicine regulations.

The study reviews various clinical and financial models and contemplates a sustainable APN-led practice committed to patient engagement as a core organizational value. Such a model would offer consistent patient centered care delivered by community health teams led by nurse practitioners.

Key components of the model include:

- risk stratification
- evidence-based treatment protocols
- comprehensive and continuous assessment
- data-driven decision-making
- redesign of the primary care visit
- community partnerships
- patient-designed plans of care
- care coordination
- case management
- patient education
- system navigation
- health information technology

To be financially feasible, such an APN led practice must swiftly meet the criteria for designation as a primary care medical home, achieve necessary patient/provider ratios and volume, and have an appropriate payer mix. Given the strong relationship between the social determinants of health and general health status, a practice that could provide social services or has access to needed social services would be highly desirable.

In evaluating the various barriers and challenges an APN-led practice would face, certain elements need to be in place to ensure the success of such a practice in Trenton. Involving existing community/neighborhood organizations and local leaders, as well as developing relationships with existing health facilities in the City will be critical to success. The safety of healthcare workers and the patients must be a critical factor in deciding upon the location of a practice in Trenton.

Most importantly, long-term success relies on financial viability. It is essential to secure adequate startup funding and an appropriate patient mix that leads to a reimbursement structure/payer mix to support the practice over time. Three criteria were identified in Trenton to be essential in the successful creation of an APN-led practice:

1. patient care need
2. community partnerships
3. sustainability

RECOMMENDATION

This review of the Trenton environment found significant need for an APN-led practice committed to patient engagement as a core organizational value. However, the high percentage of un-and underinsured individuals in the Trenton market will require caution in implementing any such program. Many of the barriers - competitive and otherwise – must and can be overcome, and the Trenton Health Team is a definite asset in this regard. However, the feasibility of any such project will depend on the ability to identify, engage, access, and maintain a revenue stream and/or ongoing external resources to make the practice sustainable and that will be a significant challenge.

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I. Introduction

The City of Trenton continues to display some of the worst health outcomes of any city in the United States. One only has to walk the streets to see the ongoing needs for mental health services, substance abuse assistance and general healthcare. Most institutions and businesses have moved to the suburbs where they serve the suburban population. Lack of transportation to health clinics is a significant issue and more neighborhood-based care is desperately needed. While there are currently two hospitals, one Federally Qualified Health Center (FQHC), an FQHC look-alike in the planning stages, and several clinics servicing the residents, there is still much to be done in general healthcare access and in specific areas such as prenatal/perinatal care, mental health care, substance abuse services, pain management, and chronic disease management. Consistent access to primary care continues to be elusive, and residents continue to use the Emergency Room for non-urgent problems, which is costly, inefficient, duplicative, episodic and unsatisfactory healthcare.[1]

Fortunately, the Trenton Health Team(THT) (http://www.trentonhealthteam.org) has new leadership and a commitment to address the on-going healthcare problems. (Note: The THT is a community health improvement collaborative that initially began with four partners: Capital Health, St. Francis Medical Center, the Henry J. Austin Health Center, and the Department of Health and Human Services of Trenton. It now includes more than 60 community partner organizations, working together to improve care in Trenton.) Also, Trenton has recently become the recipient of several large multi-year healthcare grants that are funding community wide efforts to improve nutrition, reduce smoking and obesity in children, prevent diabetes, and promote health literacy and healthy lifestyles. That funding, along with the City's hardworking and dedicated healthcare professionals, brings hope for the future in dealing with the problems of access to quality primary care.

Abundant literature demonstrates the effectiveness and quality of nurse practitioner care to meet primary care needs.[1] Nurse Practitioner (NP) outcomes have been shown to be equivalent to, or better than, those of physicians.[2] The patient-centric care provided by nurse practitioners is essential to serve the complex populations in underserved low-

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[1] Brown, S.A. & Grimes, D.E. (1995). A meta-analysis of nurse practitioners and nurse midwives in primary

[2] Kuo, Y., Chen, N., Baillargeon, J., Raji, M. A., & Goodwin, J. S. (2015). Potentially Preventable Hospitalizations in Medicare Patients With Diabetes: A Comparison of Primary Care Provided by Nurse Practitioners Versus Physicians. *Medical Care*, 53(9), 776-783. doi:10.1097/MLR.0000000000000406; Oliver, G. M., Pennington, L., Revelle, S., & Rantz, M. (2014). Impact of nurse practitioners on health outcomes of Medicare and Medicaid patients. *Nursing Outlook*, 62(6), 440-447. doi:10.1016/j.outlook. 2014.07.004; Ritsema, T. S., Bingenheimer, J. B., Scholting, P., & Cawley, J. F. (2014). Differences in the delivery of health education to patients with chronic disease by provider type, 2005-2009. *Preventing Chronic Disease*, 11E33. doi:10.5888/pcd11.13017; Martsolf, G., Auerbach, D., Arifkhanova, A. The Impact of Full Practice Authority for Nurse Practitioners and Other Advanced Practitioners in Ohio. Santa Monica, CA: Rand Corporation, 2015; Mundinger, M.O., Kane, R.L., Lenz, E.R., Totten, A.M., Tsai, W.Y., Cleary, P.D., et al. (2000). Primary care outcomes in patients treated by nurse practitioners or physicians: A randomized trial. *Journal of the American Medical Association*, 283(1), 59-68; Stanik-Hutt, J., Newhouse, R., (2013). The quality and effectiveness of care provided by Nurse Practitioners. *The Journal for Nurse Practitioners*, 9 (8). doi:10.1016/j.nurpra.2013.07.004

income communities. Offering traditional healthcare services, while also considering the social determinants that are impacting the health of the patient, nurse practitioners are best poised to serve the state's neediest residents. Additionally, data indicate that primary care NPs are increasing in significantly larger numbers than primary care physicians.[3] These increasing numbers of primary care NPs will have a major, mounting role in meeting the nation's primary care needs. As a result, nurse practitioners have been identified as the key professional group that is well positioned to meet the growing demand for healthcare services, especially in underserved communities.[4]

This Project was developed to address the need for a more comprehensive primary care infrastructure in New Jersey that would provide necessary healthcare services to benefit the sickest and most underserved populations in Trenton and Newark. Specifically, this Project was initiated to assess the feasibility of nurse-led health services in Trenton and Newark. This report focuses on the City of Trenton.

The Project Team has conducted numerous interviews, surveys, focus groups and extensive research to inform the content of this Feasibility Study. What follows is an overview of a community health needs assessment, a community and health needs evaluation, and practice options considering relevant financial models to develop a sustainable nurse-led practice. Challenges have been identified but solutions are also offered, including a proposed practice model that demonstrates the feasibility of a NP-led practice in the City of Trenton.

II. Trenton Community Assessment

President Obama signed the Patient Protection and Affordable Care Act (ACA) into law on March 23, 2010. With a predicted 32 million uninsured people entering the system by 2019, existing primary care structures will soon be overwhelmed unless new models of care delivery are enacted immediately. Even before passage of the ACA and the expected influx of an additional 600,000 insured individuals[5], New Jersey was facing significant challenges in meeting primary care needs in the state. Studies have shown there is a current shortage of family medicine physicians in New Jersey and a projected shortfall of 1,000 primary care physicians by 2020.[6] Although the primary care physician to patient

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[3] The 2012 nurse practitioner graduation rates announced by the American Association of Colleges of Nursing and the National Organization of Nurse Practitioner Faculties (AACN/NONPF, 2013) showed a continued increase in primary care NPs. Primary care NP graduates increased 18.6% or 2,228 NPs between 2011 and 2012. Primary Care NP graduates accounted for 84% of all NP graduates in 2012 whereas U.S. medical school primary care matches accounted for only 11.6% of the 16,390 matches.

[4] Laurant, M. et al. (2006). Substitution of doctors by nurses in primary care. *Cochrane Database of Systematic Reviews 2006*. Issue 1

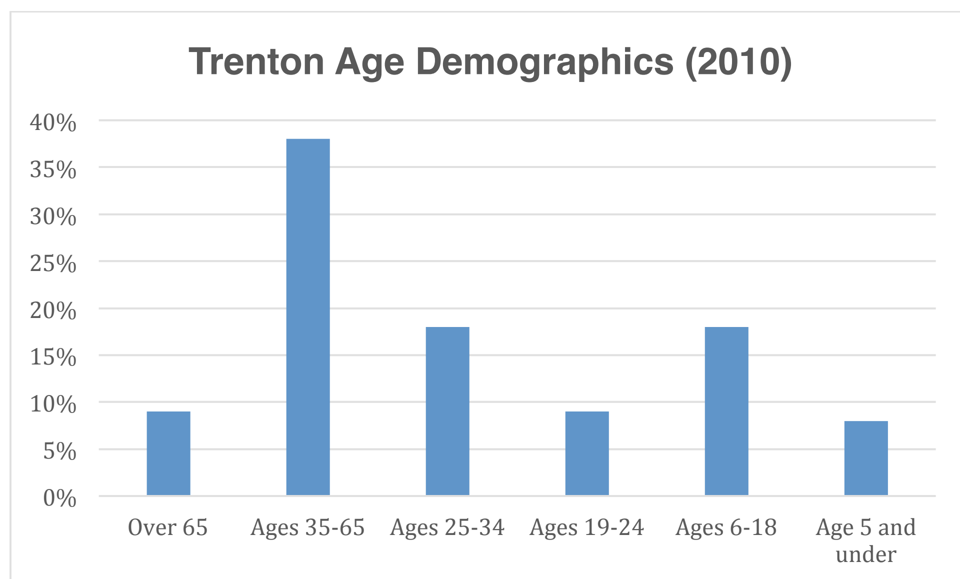
[5] *A Medical Malady: Where are New Jersey's Primary Care Physicians*. NJ Spotlight. July 5, 2011. http://www.njspotlight.com/stories/11/0704/2329/ Web. 13 November 2013

[6] *NJ Physician Workforce Task Force Report*. New Jersey Council of Teaching Hospitals, undated. http://www.njcth.org/NJCTH/media/NJCTH-Media/pdfs/FINAL-NJ-Physician-Workforce-Report--w-appendices-012910.pdf p.4 Web. 12 November 2013

ratio in the state (94.0 per 100,000 people) is higher than the national average (88.1 per 100,000 people), the totals fail to recognize the shortages in specific geographic regions.[7] Unmet needs are documented in many counties including Mercer.[8] And even more specifically, Trenton has been listed as medically underserved based on the New Jersey Medically Underserved Index.[9] Medically Underserved Areas are areas designated by HRSA as having too few primary care providers, high infant mortality, high poverty or a high elderly population.[10]

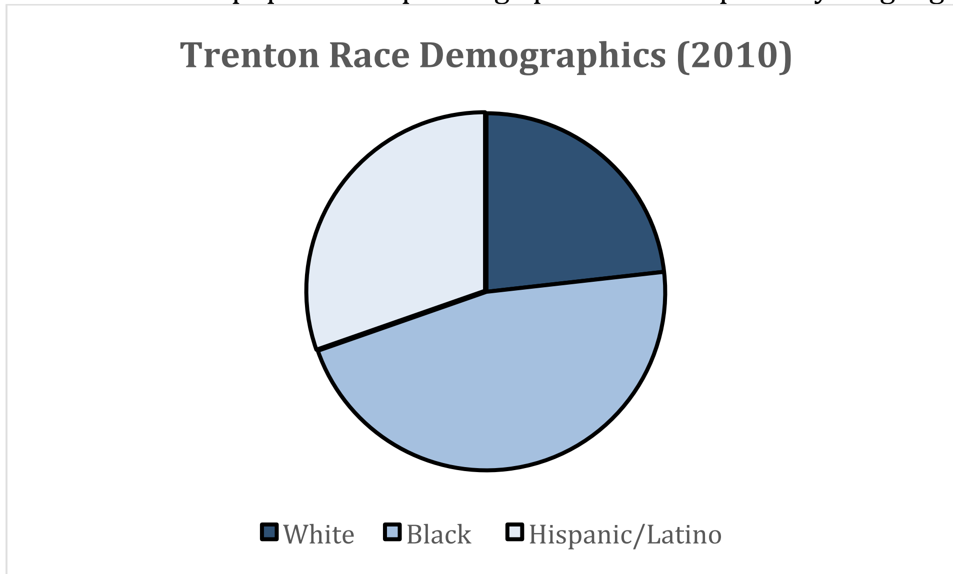
A. Trenton and Mercer County Demographics

As of the most recent census in 2010, Trenton's population was 84,913 with a median income of $36,601.[11] The largest segment of the population (37.5%) was between the ages of 35 and 65, and almost 18% are between the ages of 25 and 34.[12] One quarter of Trenton's population is 18 or younger, with almost 8% being age 5 and younger.[13] Trenton's senior population is not large compared to the rest of the state (13.5%); less than 9% of Trenton residents are age 65 or older.[14]



[7] Ibid.
[8] *NJ Physician Workforce Task Force Report*. New Jersey Council of Teaching Hospitals, undated. http://www.njcth.org/NJCTH/media/NJCTH-Media/pdfs/FINAL-NJ-Physician-Workforce-Report--w-appendices-012910.pdf p.26. Web. 12 November 2013
[9] *NJ Physician Workforce Task Force Report*. New Jersey Council of Teaching Hospitals, undated. http://www.njcth.org/NJCTH/media/NJCTH-Media/pdfs/FINAL-NJ-Physician-Workforce-Report--w-appendices-012910.pdf Appendix 7, Web. 12 November 2013
[10] *NJ Physician Workforce Task Force Report*. New Jersey Council of Teaching Hospitals, undated http://njcth.org/getmedia/5b820448-8791-46e5-aa70-d690dbcbb99f/FINAL-NJ-Physician-Workforce-Report-012910.aspx Web. 12 November 2013
[11] US Census Bureau
[12] NJ Chartbook of Substance Abuse Related Social Indicators, Mercer County, Division of Mental Health and Addiction Services. May 2013.
[13] US Census Bureau
[14] US Census Bureau

Trenton is a racially diverse city, with 52% Black, 34% Hispanic or Latino, and 26% White.[15] Over 34% of Trenton's population speaks a language other than English at home[16], with 29% of the population speaking Spanish as the primary language.[17]



Just over one quarter of Trenton residents are below the poverty rate.[18] In March 2015, the unemployment rate in Trenton was 9.6% compared to 6.5% for the state.[19] Households receiving public assistance benefits were 7.2%.[20] Almost 28.1% of households are headed by females with no male significant other present.[21]

B. One City, Many Communities

Trenton, a city of great history, was founded in the early 1700s. It is centrally located in the state and serves as the site of the State capital as well as the site of its Mercer County government. It sits on the banks of the Delaware River bordering Pennsylvania to the west.

Trenton, once a thriving manufacturing city, has undergone much change. People of European descent with Italian, Hungarian, and Jewish backgrounds, lived and worked in the city as business owners or workers in its many factories making wire rope, cigars, pottery, and rubber. It had a thriving upper and middle class and adopted the slogan "Trenton Makes, the World Takes" to express its pride as a major supplier of goods. However, the population has dropped significantly as the city lost much of its

[15] US Census Bureau
[16] US Census Bureau
[17] NJ Chartbook of Substance Abuse Related Social Indicators, Mercer County, Division of Mental Health and Addiction Services. May 2013.
[18] US Census Bureau
[19] http://quickfacts.census.gov/qfd/states/34/3451000.html
[20] NJ Chartbook of Substance Abuse Related Social Indicators, Mercer County, Division of Mental Health and Addiction Services. May 2013.
[21] US Census Bureau

manufacturing industry. The City had a peak population of 128,000 in 1950 but today has only approximately 84,000 residents..

Its eight square miles has four main neighborhoods: North, South, East and West. Today, more than half of the population is made up of middle and lower income African Americans and there are also growing numbers of Latino and Asian immigrants in certain sections of the City.

While North Trenton had many historic and large detailed architectural homes and buildings, it fell to race riots in 1968 and has never recovered its former glory. It is now the poorest area in the City and is home to a largely African American community living among a thriving Polish-American community.

In the South, the city has its most diverse neighborhoods and is home to many Italian, Latinos and African American residents.

While the West area is the site of suburban neighborhoods, the East area is the smallest community and has seen many of its busy, well-respected Italian restaurants close or move to the suburbs as the City has experienced its economic and population decline over the last few decades..

As the State capital, Trenton welcomes over 20,000 workers commuting into the City each day. The downtown area has been taken over by many large governmental buildings and does have some businesses such as small shops and restaurants to support their needs. However, at night, safety is an issue and with no state workers to patronize them, businesses feel the void and find it hard to thrive. There is a transit station that supports NJ Transit buses and trains, SEPTA local trains to Philadelphia, Amtrak and the River Line (a low fee rail system that travels along the Delaware River to Trenton from South Jersey). While there is one major hotel near the Statehouse, it has changed hands several times in attempts to survive. A minor league baseball team, the Trenton Thunder, has a modern ballpark along the river and a few miles away is the Sun Arena, which holds indoor concerts and sporting events.

Two small colleges reside within the city limits: Thomas Edison University, a college uniquely created for adult students, many of whom take courses online, and a small downtown branch of the Mercer County Community College, whose main campus is located in nearby West Windsor.

Despite the influx of government workers and those businesses that support them on a daily basis, Trenton would not be seen by many as a city that is thriving.

Politically, Trenton has been in turmoil. Continuing in its long history of ethical and legal problems with its government leaders, as recently as June 2014, Mayor Tony Mack and several of his appointees were sent to federal prison with multiple convictions for bribery, fraud, extortion, drug dealing, theft and corruption. Additionally, in February 2016, the FBI began a criminal investigation into the city-contracted payroll company alleging that

payroll taxes were being withheld from city employees, but never paid to the government. With decades of such upheaval and uncertainty as well as an environment of mistrust of local officials, it has been hard to move any issues positively within city government.

If it is true that "healthcare is local", then it is especially critical that any successful health service in Trenton acknowledge the unique nature of the history of the city and its neighborhoods. A successful healthcare access plan would consider the desire of its residents to meet their healthcare needs within their own neighborhoods as well as be sensitive to cultural differences and the inherent mistrust many of its residents have of its local government that has had such a checkered history of ethical behavior. Additionally, an effective health plan must consider the implications of a city that grows in population by 20,000 each work day on its business and transportation infrastructure. Further, consideration of Trenton's significant local transportation needs and increasing security issues is essential to reducing access barriers to effective healthcare.

C. Citywide Challenges

Food Deserts

New Jersey has over 25% percent fewer per capita supermarkets compared to national averages.[22] Trenton has been called out as a food desert. Despite being one of the most affluent states in the country, some cities, such as Trenton would need to triple its number of supermarkets to adequately serve its residents,[23] as it currently has only three true supermarkets. Food insecurity affects one in five households. According to Trenton250, a team within the Trenton Division on Planning, the food impact to residents is substantial. It states the lack of affordable healthy foods has resulted not only in higher hypertension rates but rates of obesity that are 200% higher and diabetes that are 250% higher than rates for Mercer County as a whole.[24] While most adults in Trenton lead sedentary lifestyles, most parents agree that their children do not get enough activity. Their opinion proves true as 41% of children are obese and 34% of children do not get the recommended amount of exercise.[25]

Education

Education levels in Trenton are lower than the rest of Mercer County with only 52.9% graduating from high school[26], and only 11% with a college degree.[27] As of the 2010-11 school year, the district's 75 schools had an enrollment of 7,809 students and 2,685 classroom teachers (on an FTE basis), for a student–teacher ratio of 9:1.[28]

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[22] Food for Every Child: The need for more Supermarkets in NJ, Brian Lang, The Food Trust. (undated) http://www.tulloch.rutgers.edu/Maps/NJSupermarkets_PhillyFoodTrust.pdf

[23] Food for Every Child: The need for more Supermarkets in NJ, Brian Lang, The Food Trust. (undated) http://www.tulloch.rutgers.edu/Maps/NJSupermarkets_PhillyFoodTrust.pdf

[24] Trenton 250: Issues and Opportunities report, December 10, 2015. www.Trenton250.org

[25] Ibid.

[26] Trenton 250: Issues and Opportunities report, December 10, 2015. www.Trenton250.org

[27] NJ Chartbook of Substance Abuse Related Social Indicators, Essex County, Division of Mental Health and Addiction Services. May 2013.

[28] Wikipedia

Homelessness

Homelessness is a significant problem in Trenton, where the average rent is $950/month.[29] Between 2009 and 2013, it was estimated there were 500-700 homeless adults and 300 homeless children.[30] The Rescue Mission of Trenton provides the only Emergency Shelter in the Mercer County, licensed by the Department of Community Affairs, serving single men and women.[31] There is a Cold Weather Overflow Shelter that provides sleeping shelter when the Rescue Mission is full.

Crime

The high rate of crime is a significant environmental factor in Trenton. The city's crime rate is higher than the national average across all communities in the U.S. at 36.2 crimes per one thousand residents.[32] In 2011, the City fired 108 police officers due to budget cuts, a number which accounted for almost one-third of the entire Trenton Police Department. The City then required 30 senior officers to be sent out on patrols in lieu of supervisory duties. Within two years, the homicide rate hit a new high going from 25 in 2007 to a record of 37 in 2013.[33]

Over 4,500 homes are unoccupied in the city. The empty homes not only reduce pride in a neighborhood, but they also attract crime. The chance of becoming a victim of violent crime in Trenton is one in 89.[34] Violent offenses tracked include rape, murder and non-negligent manslaughter, armed robbery, and aggravated assault, including assault with a deadly weapon.[35] The chance of becoming a victim of *any type* of crime is 1 in 40 in Trenton, while 1 in 58 in the state. Neighborhood Scout reports that there are 372 crimes per square mile in the city of Trenton, compared with 73 in the state and a national median of 32.8.[36] Gangs have a major impact in the city and there are over 5,300 gang members in eleven different gangs with multiple gangs of over 100 members each.[37] This city has become a haven for crime.

D. Trenton Health Status

Trenton's health status is in jeopardy. The average age of death in Trenton is 75.4 for White, non-Hispanic, 63.8 for Black, non-Hispanic and 53.3 for Hispanics.[38] An active and

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[29] 2013 data. http://www.city-data.com/city/Trenton-New-Jersey.html Web. Feb 24, 2016.
[30] Trenton Health Needs Assessment, 2013
[31] http://www.homelessshelterdirectory.org/cgi-bin/id/city.cgi?city=Trenton&state=NJ
[32] The crime data that NeighborhoodScout used for this analysis are the seven offenses from the uniform crime reports, collected by the FBI from 17,000 local law enforcement agencies, and include both violent and property crimes, combined. http://www.neighborhoodscout.com/nj/newark/crime/#description Web. January 20, 2015.
[33] https://en.wikipedia.org/wiki/Trenton,_New_Jersey
[34] http://www.neighborhoodscout.com/nj/newark/crime/#description Web. January 20, 2015.
[35] Ibid.
[36] Ibid.
[37] Trenton Health Team: Community Health Needs Assessment Report, July 2013.
[38] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html

engaged network of primary care services is needed to service the many needs of the state's residents, especially in low income and medically underserved areas such as Trenton. Lack of health insurance resulting from high unemployment and underemployment complicates health access issues in Trenton.[39]

A sample of the healthcare needs is provided in the overview below:

CANCER: The incidence rate for all cancers in New Jersey is higher than the US rate, except for Asian and Pacific Islander men and women.[40] Cancer incidence in NJ is 495.8 per 1,000.[41] Mercer County is 514.1 (age adjusted).[42] Early detection can provide a key role in decreasing mortality rates. Disturbingly, early stage diagnosis for colorectal, prostate, and lung cancer was much lower in black men compared to white men statewide.[43] For black women, compared to white women, early detection was lower for breast, cervical and lung cancers in New Jersey.[44] In Trenton, from 2009-2011, cancer caused the death of 456 people, with 56% being Black, non-Hispanic, and 34% White.[45]

DIABETES: In New Jersey, there are an estimated 440,000 residents diagnosed with diabetes and another 178,000 who are unaware that they have the disease.[46] The disease is not evenly distributed among the population, as studies show that Blacks, Hispanics, Asians and Native Americans are more likely to have the disease.[47] Additionally, diabetes becomes more prevalent with age. With US census statistics showing that New Jersey's population is older than most other states,[48] the number of new diagnoses of this disease is likely to rise. In 2009, 16% of Trenton residents were diabetic.[49] From 2009-11, diabetes was the cause of death for 80 residents, with 58% Black, non-Hispanic, and 27% White, non-Hispanic.[50]

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[39] Trenton Health Needs Assessment, 2013

[40] Niu, Xiaoling et al. *Cancer Incidence and Mortality in New Jersey (2006-2010)*. Cancer Epidemiology Services, Public Health Services Branch, NJ Department of Health. p. 4. Web. 11 November 2013. http://www.state.nj.us/health/ces/documents/report06-10.pdf

[41] http://www.cancer-rates.info/nj/ Based on Feb 2015 NJ Cancer Registry Data File (last accessed June 3, 2015)

[42] http://www.cancer-rates.info/nj/ Based on Feb 2015 NJ Cancer Registry Data File (last accessed June 3, 2015)

[43] Niu, Xiaoling et al. *Cancer Incidence and Mortality in New Jersey (2006-2010)*. Cancer Epidemiology Services, Public Health Services Branch, NJ Department of Health. p. 4. Web. 11 November 2013. http://www.state.nj.us/health/ces/documents/report06-10.pdf

[44] Niu, Xiaoling et al. *Cancer Incidence and Mortality in New Jersey (2006-2010)*. Cancer Epidemiology Services, Public Health Services Branch, NJ Department of Health. p. 4. Web. 11 November 2013. http://www.state.nj.us/health/ces/documents/report06-10.pdf .

[45] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html

[46] *The Burden of Diabetes in New Jersey: A Surveillance Report (2005, 2006)*. Division of Family Services, NJ Department of Health and Human Services. p. 1 . Web. 11 November 2013. http://www.state.nj.us/health/fhs/documents/diabetesinnj.pdf

[47] *The Burden of Diabetes in New Jersey: A Surveillance Report (2005, 2006)*. Division of Family Services, NJ Department of Health and Human Services. p. 1. Web. 11 November 2013. http://www.state.nj.us/health/fhs/documents/diabetesinnj.pdf

[48] *State and County Quick Facts*. 2012. US Census Bureau. Web. 11 November 2013. http://quickfacts.census.gov/qfd/states/34000.html

[49] Trenton Health Needs Assessment, 2013

[50] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html

HEART DISEASE: Heart disease is the leading cause of death in New Jersey and accounted for 9,444 female deaths in 2009.[51] Again, the disease hits an ethnic minority harder. Blacks in New Jersey have higher mortality rates from cardiovascular disease than whites, for both heart disease (287.6 versus 249.6 per 100,000) and stroke (65.6 versus 41.9 per 100,000).[52] In Trenton, from 2009-11, 80 people suffered from stroke (57% were Black, non-Hispanic, and 32% were White.[53]

INFANT & CHILD HEALTH: Census numbers show that the Mercer County teen birth rate is 15.64 per 1,000.[54] Infant mortality rate for Trenton is 17 per 1,000 for Blacks, and 7.3 for Hispanics between 2009 and 2011.[55] Timely prenatal care improves pregnancy outcomes by identifying complications, educating patients and managing chronic and pregnancy-related health conditions. A 2008 Task Force awarded grants to agencies in the state's highest risk areas to improve access to prenatal care; Trenton and Ewing were grouped together in this project. Despite three years of additional attention and funding, Trenton continues to struggle to ensure pregnant women receive early prenatal care.[56] Despite this additional targeted funding, Trenton showed no improvement in increasing timely access to prenatal care. Rates for prenatal care in the first trimester in the Trenton metro area have actually dropped significantly from 63% in 2008 to 58% in 2011.[57] And late (third trimester) or no prenatal care rates in the same region rose slightly over the grant period, from 7.6% receiving late or no prenatal care in 2008 to 8.3% in 2011.[58] This problem has become exacerbated as market forces have consolidated hospital care delivery for obstetrics and prenatal care in the greater Trenton area. Infant mortality rates are also of concern, showing distinct differences in rate among race. The ratio between infant mortality rates for non-Hispanic Black populations relative to non-Hispanic White populations is 3.3 in New Jersey, the second highest in the nation, with Washington, DC at

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[51] *Women and Cardio-Vascular Disease: New Jersey.* American Heart Association/American Stroke Association. Web. 11 November 2013. http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_315530.pdf

[52] These are age-adjusted death rates, *2001Monthly health data fact sheet* Feb 2004. Center for Health Statistics. NJ Department of Health and Human Services. Web. 11 November 2013. http://www.nj.gov/health/chs/monthlyfactsheets/feb04heart.pdf

[53] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html

[54] NJ Chartbook of Substance Abuse Related Social Indicators, Mercer County, Division of Mental Health and Addiction Services. May 2013.

[55] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html

[56] All grantees held Advisory Groups or Consumer driven Focus Groups. During these meetings, barriers to accessing prenatal care were identified by consumers. Insurance/Medicaid issues were identified as a barrier with the main hurdle being the lack of awareness about eligibility criteria for immigrant women. Inconsistencies in information provided by County Medicaid offices and delays in processing presumptive eligibility were also identified. The remaining barriers identified focused on language, homelessness, domestic violence and lack of transportation. Update on Early Prenatal Care, NJ Dept of Health, March 2013. http://www.state.nj.us/health/fhs/professional/documents/early_prenatal_update.pdf

[57] Update on Early Prenatal Care, NJ Dept of Health, March 2013. http://www.state.nj.us/health/fhs/professional/documents/early_prenatal_update.pdf

[58] Update on Early Prenatal Care, NJ Dept of Health, March 2013. http://www.state.nj.us/health/fhs/professional/documents/early_prenatal_update.pdf

3.8 and Delaware in third place at 2.8.[59] A 2007 study by the Urban Institute mapped the geographic patterns of childhood obesity risk factors in census tracts across the United States and revealed that children in Trenton, among five other New Jersey cities are predicted to be at particularly high risk for childhood obesity.[60] The lack of access to affordable, healthy food and few safe playgrounds has resulted in a significant child obesity issue in Trenton. Nearly half of the city's children are obese.[61]

RESPIRATORY PROBLEMS: New Jersey adults suffer from higher rates of asthma than the national average (12.8% versus 13.3%).[62] Patient education for those suffering from the condition is sorely lacking. The CDC shows that only 64% of asthma patients were told how to recognize early signs of an asthma episode and just 32% were given an asthma action plan.[63] Race again plays a factor in respiratory problem prevalence: more Black adults and children in New Jersey had asthma than White non-Hispanics.[64] COPD prevalence decreased with increasing income levels, an indicator that poverty plays a large role in the disease.[65] In Trenton, between 2009 and 2011, 77 people died from chronic lower respiratory diseases, with 54% being White, 30% being Black, non-Hispanic.

OBESITY: Obesity-related conditions include heart disease, stroke, type 2 diabetes and certain types of cancer, some of the leading causes of preventable death.[66] Almost a quarter of the adult New Jersey population is considered obese.[67] Obesity prevalence in women increases as either income or education levels decrease.[68] In Trenton, 39% of residents are obese.[69] And we have already established the significant number of Trenton's children suffering from obesity.

HIV/AIDS: People living with AIDS or HIV make up 2% of the New Jersey population. The *2013 New Jersey HIV/AIDS Report* notes that Trenton ranks in the top ten cities in New

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[59] Mathews, TJ et al. "Infant Mortality Statistics from the 2009 Linked Birth/Infant Death Data Set" National Vital Statistics Report. Vol. 61 : No. 8. 23 January 2013. Web. 11 November 2013. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_08.pdf

[60] Mapping the Childhood Obesity Epidemic: A Geographic Profile of the Predicted Risk for Childhood Obesity in Communities Across the United States Sharon K. Long Leah Hendey Kathy Pettit The Urban Institute 2007. http://www.urban.org/sites/default/files/alfresco/publication-pdfs/411773-Mapping-the-Childhood-Obesity-Epidemic.PDF

[61] Trenton Health Needs Assessment, 2013.

[62] *Asthma in New Jersey*. Center for Disease Control, undated. http://www.cdc.gov/asthma/stateprofiles/Asthma_in_NJ.pdf Web. 13 November 2013.

[63] *Asthma in New Jersey*. Center for Disease Control, undated. http://www.cdc.gov/asthma/stateprofiles/Asthma_in_NJ.pdf Web. 13 November 2013.

[64] *Asthma in New Jersey*. Center for Disease Control, undated. http://www.cdc.gov/asthma/stateprofiles/Asthma_in_NJ.pdf Web. 13 November 2013.

[65] *Chronic Obstructive Pulmonary Disease Among Adults Aged 18 and Over in the US, 1998-2009*. Centers for Disease Control, http://www.cdc.gov/nchs/data/databriefs/db63.pdf 5 Web. 11 November 2013

[66] *Adult Obesity Facts*, Centers for Disease Control, http://www.cdc.gov/obesity/data/adult.html Web. 13 November 2013

[67] *Adult Obesity Facts*, Centers for Disease Control, http://www.cdc.gov/obesity/data/adult.html Web. 13 November 2013

[68] *Obesity and Socioeconomic Status in Adults,* United States, 2005-2008. Centers for Disease Control. December 2010. http://www.cdc.gov/nchs/data/databriefs/db50.pdf Web. 13 November 2013

[69] Trenton Health Needs Assessment.

Jersey with the highest prevalence of HIV/AIDS in the state.[70] As of December 2013, data shows more than 2,200 cumulative HIV/AIDS cases in Trenton.[71]

MENTAL HEALTH: Suicide caused the death of 16 people between 2009-11, in Trenton. One third were Black and one third were white.[72]

DRUG AND ALCOHOL ADDICTIONS: Drug and alcohol abuse is a significant health concern in Trenton and Mercer County as a whole. Per 1,000 residents, Trenton has 5.1 admissions for alcohol treatment and 10.91 for drug treatment.[73] For Mercer County treatment admissions for substance abuse, 31.9% had alcohol as the primary substance of abuse, and 15% was for cocaine/crack. More than half of the 2012 Mercer County substance abuse treatment admissions were patients from Trenton.[74] In 2010, 5.6% of Mercer County middle school students have used marijuana within the past year.[75] In 2008, 27.4% of high school students had used marijuana within the past year.[76] An assessment was made by the State, in 2010, of the treatment needs of each county for alcohol and drug addictions.[77] The report identifies 13.2% of Mercer residents need alcohol treatment and 5% need drug treatment; a total of 51,641 Mercer County residents need treatment for these substances.[78]

These daunting health problems are best met through consistent quality care, most often provided by primary care professionals managing chronic disease. Nurse practitioners are the ideal primary care provider in the State of New Jersey to alleviate the urgent need for primary care services.

E. Access to Healthcare

Access to community-based primary healthcare across a populous and diverse city such as Trenton has many challenges and opportunities. Each area of Trenton is unique, from the upper-middle class suburban area of the West to the poorest section of the North with many boarded-up vacant large homes that never recovered their former glory. The city

[70] 2013 New Jersey HIV/AIDs Report.
[71] New Jersey Department of Health, Division of HIV, STD and TB Services 1 Epidemiologic Services Unit http://www.state.nj.us/health/aids/repa/topcity/documents/topcity.pdf
[72] NJ State Health Assessment Data. https://www26.state.nj.us/doh-shad/query/Introduction.html
[73] NJ Chartbook of Substance Abuse Related Social Indicators, Essex County, Division of Mental Health and Addiction Services. May 2013.
[74] Trenton Health Needs Assessment, 2013.
[75] NJ Chartbook of Substance Abuse Related Social Indicators, Essex County, Division of Mental Health and Addiction Services. May 2013.
[76] NJ Chartbook of Substance Abuse Related Social Indicators, Essex County, Division of Mental Health and Addiction Services. May 2013.
[77] Estimate of Treatment Need for Alcohol and Drug Addiction, NJ Dept of Human Services, 2010. http://www.state.nj.us/humanservices/dmhas/publications/need/Tx_by_Type_2010.pdf
[78] Estimate of Treatment Need for Alcohol and Drug Addiction, NJ Dept of Human Services, 2010. http://www.state.nj.us/humanservices/dmhas/publications/need/Tx_by_Type_2010.pdf

center has been taken over by state government, which creates a busy downtown by day but leaves a ghost town by night.

The health status of Trenton residents is lower than their Mercer County neighbors as well as the rest of the State. Access to primary care is likely to be a major factor influencing the poor health of the City's residents. Trenton is served by two safety net hospitals, a FQHC, and a variety of community agencies and facilities that provide both social and healthcare services. Below is an overview of the hospitals and the Henry J. Austin Health Center (FQHC). A list of community agencies and facilities providing services is in Appendix 1.

Hospital Facilities

There is one major hospital in downtown Trenton, St. Francis Medical Center. It is an acute care teaching hospital accessible on a bus line, and home to Mercer County's only cardiac surgery program. It offers a full range of services and offers treatments in the areas of cancer, stroke, cardiology, GI, geriatrics, and psychiatry. The hospital also deals with wound care, sleep disorders, dialysis, radiology and bariatric surgery. A number of outpatient clinics are operated by the hospital, but with very little outreach to the community. St. Francis operates a mobile van service to reach those who cannot get to their facility. This Medical Center is part of the Trinity Health System, the third largest not-for-profit health system in the world.

Outside the city in nearby Hopewell, Capital Health recently built a new 230-bed full service hospital on 165 acres that contains doctors' offices as well as all private in-patient rooms but is more difficult to access for Trenton residents. Capital Health also operates a city facility. The 158-bed Capital Health System Regional Campus is also located in Trenton. Capital Health Regional Medical Center is a medical center with a long history of serving the city. The hospital includes, the Level II Bristol-Myers Squibb Trauma Center and the county's designated Emergency Mental Health Services Center. Capital Health Regional Medical Center also provides inpatient and outpatient radiology services, dialysis, and numerous other medical services. Capital Health provides the only pre- and perinatal hospital-based services in Trenton and are the only serious providers of these services in Mercer County for those of little means or on Medicaid although, much to the chagrin of regulators, they moved their pre- and perinatal services from the city to Hopewell which some feel has mitigated care to the most needy.

Capital Health System is in financial crisis. The leading surgeon from the facility responsible for most of their financial growth has left and the hospital is engaged in a major lawsuit in that regard. Recently, Capital was sued in two Civil Rights cases claiming discrimination and racial epithets. It may be that Capital Health will be courting acquisition in the near future (and that is certainly rumored). If so, the nature of that acquisition will be important to the continued delivery of care to the poor in the region.

St. Francis and Capital Regional campus handle virtually all the emergency room load in the city of Trenton and certainly all of the indigent load.

Henry J. Austin Health Center

There is one Federally Qualified Health Center provider, the Henry J. Austin Health Center (HJAHC). HJAHC is the largest non-hospital based ambulatory care provider in the city. Primary healthcare services offered by this FQHC include adult medicine, gynecology, pediatrics, HIV treatment, dental care, podiatry, and ophthalmology. Additional services are nutrition, social service, substance abuse assessment and intervention, behavioral health, translation services, transportation, and an onsite pharmacy. One essential service that the HJAHC does not provide is prenatal care. Most forms of health insurance including Medicare and Medicaid are accepted and there is a sliding fee scale for the uninsured. This FQHC provides care to approximately 19,000 individuals annually generating more than 61,000 visits from four locations: 321 North Warren Street, 433 Bellevue Avenue, 317 Chambers Street, and 112 Ewing Street. The four locations are open 9 am – 5 pm Monday through Friday; only the Warren Street location has Saturday hours.

Other Health and Social Services in Trenton

Additional health and social services are provided by a variety of community-based agencies and facilities, as listed in Appendix 1.

With only two major hospitals within the city limits, one FQHC and other limited clinical services, there just is not enough healthcare to go around for the great need of this city.

F. Context of Health Services in Trenton

To put the challenge of improving the health status of Trenton in context, one needs to first look at the city itself. Trenton, a city of eight square miles, once a thriving manufacturing center for the world, has been in decline for decades. In an attempt to revitalize the city, the State government used this capital city as the home for its many state departments, authorities, and divisions and over a dozen large buildings and complexes were built around the State House. While those entities provide jobs, most of those 20,000 jobs are held by workers who live outside the city. In addition, the construction of massive state buildings has created a daytime canyon of workers and businesses, but leave a virtual ghost town after work ends. Businesses close, workers leave and with only a small number of residents in the downtown, the area becomes desolate and crime-ridden. With the exception of the suburban West Trenton area, none of the other areas of Trenton fare much better.

The population of Trenton, once full with a pride-filled, hard-working middle-class has been steadily falling from a high of over 128,000 people in 1950 to less than 85,000 today. The middle-class has been replaced by those in or near poverty with more than one fifth of Trenton's population living below the poverty level. A different racial and ethnic mix has filled the city: over 24% of the residents are now foreign born, over 35% of residents speak a language other than English at home, and more than 50% of the residents are Black. Of the 6 zip codes within Trenton's city limits, lack of education (defined as the % of population over 25 without a high school diploma) was ranked as one of the "highest" barriers to healthcare in half of them; very high in the other three. Trenton's household income at $36,803 in 2013 paled in comparison to the state household income of

$70,165.[79,79] High crime rates, unemployment and other social determinants negatively impact the health of the City's residents.

Despite these bleak statistics and seemingly insurmountable healthcare challenges, efforts are underway in Trenton to change the direction and address the needs of its residents. The creation of the Trenton Health Team (THT) in 2010 brought some of the prior healthcare competitors together as collaborators. Working hard to make Trenton a city that has improved healthcare for all of its residents, their success is undeniable.

Trenton Health Team (THT)

Although it is not a direct provider of health services, an important healthcare player in the City is The Trenton Health Team (THT). THT is a community health improvement collaborative resulting from an innovative partnership among St. Francis Medical Center, Capital Health, the Henry J. Austin Health Center, and the City's Department of Health and Human Services. THT also relies on the support of partners in behavioral health, substance abuse, and social services. Over 60 health, faith-based, and social service agencies are partnered with THT, as members of its Board of Directors, its subcommittees, or as members of the THT Community Advisory Board. THT's mission is to transform healthcare for the City by forming a committed partnership with the community to expand access to high quality, coordinated, cost-effective healthcare. THT is unique in its public-private, community-wide collaborative structure, with all of the City's key healthcare providers actively engaged. The fact that city government, competing hospitals and the vast majority of primary care providers have come together and are finding common ground on behalf of the community is an extraordinary accomplishment that benefits the City's residents.

THT's strategic initiatives include expanding access to primary care; improving care coordination and care management; establishing and operating a Health Information Exchange (HIE) to provide real-time access to shared patient data; engaging the community to increase knowledge and overcome obstacles to care; and building the infrastructure to become a certified Medicaid Accountable Care Organization (ACO). These initiatives serve to meet the Triple Aim of improved patient experience, better patient outcomes, and lower healthcare cost.

Over the years, several significant accomplishments have begun to make real improvements to healthcare delivery and outcomes. For example, waiting times to get medical care have been reduced at the Henry J. Austin Health Center. By improving the coordination of care, the neediest patients are now being seen more often and the use of the emergency room as a site for primary care has been steadily dropping.

In the past several years, THT has been the recipient of several large grants that will give them the ability to continue and improve upon the work that they do. THT's Care Management Team, which has been funded by The Nicholson Foundation, has coordinated care for more than 180 high-utilizing individuals with complex health needs,

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[79] city-data.com

demonstrating significant success while learning about the many challenges inherent in this work. In February 2016, Trinity Health awarded THT one of six national 5-year grants of $2.5 million to improve the city's health and well-being. In March 2016, THT was also chosen as a Robert Wood Johnson Foundation Culture of Health finalist bringing it one step closer to the national prize. The criterion for this prize is guided by the principle that every community has the potential to improve and be a healthier place to live.

Despite the great strides being made by the coordination of care delivery by the Trenton Health Team, there is still much to be done to improve health care access and service in this city. Besides the need for primary care, which still can be hard to get to with the lack of sufficient transportation, there remains the need for ongoing treatment of chronic conditions, prenatal care, mental and behavioral health issues, and substance abuse. As stated earlier, emergency rooms are utilized at a rate higher than the national norm, leading to costly, ineffective, duplicative, episodic and unsatisfactory healthcare. In addition, the high prevalence of sexually transmitted diseases, HIV/AIDs, Hepatitis C, lead poisoning, and teen pregnancy as well as poor birth outcomes, indicates that health care needs remain high.

In addition to the work done by THT, there have been some efforts to improve birth outcomes in Trenton. In 2006, the five Medicaid managed care health plans in New Jersey began collaborating to identify high-risk pregnancies and improve birth outcomes in Camden, New Brunswick, and Trenton. AmeriChoice of NJ, AMERIGROUP NJ, Health Net, Horizon NJ Health and University Health Plans were joined by the state Medicaid program and the New Jersey Maternal and Child Health Consortium in the pilot initiative, officially known as the New Jersey Collaborative to Improve Birth Outcomes and Health Status of Children. The Center for Health Care Strategies (CHCS) spearheaded the effort with funding from Children's Futures and the Robert Wood Johnson Foundation.[80]

While cooperation is now the plan, the old sense of competition, especially when it comes to obtaining status, power, or funding, still rears its ugly head. The system remains fragmented and must continue to work hard to overcome the years of neglect and nonchalance. Now, with local leaders trying to partner and striving to maintain a conscious effort to make the healthcare in Trenton a high priority, there is a consensus that Trenton can improve its circumstances.

[80] http://www.chcs.org/resource/collaborating-to-improve-birth-outcomes-in-new-jersey/

Key Findings
Trenton is a racially and culturally diverse city with significant challenges: extreme poverty rates, low access to quality healthcare, and a large number of medically complex individuals strain the capacity of Trenton's healthcare facilities to provide care. Crime rates are exacerbated by unoccupied homes, significant gang activity and insufficient police coverage. Lack of healthy food sources, lead paint exposure, poor birth outcomes, high teen pregnancy and lack of prenatal services all come together to create a population with significant health needs. Recently a strong collaboration of health and community leaders has been tackling many of the City's health challenges. There is general optimism that the challenges can be addressed through further collaboration although there is still a great need for primary care.

III. Current Status of Care in Trenton & Emerging Trends

To evaluate the current status of care in Trenton, in-person interviews, online surveys and focus groups were conducted with a wide range of stakeholders. The health statistics above combined with the stakeholder input summarized later in this report must be viewed in the light of the health care trends happening nationally and in the state as a whole.

With the introduction of the Affordable Care Act (ACA) in March 2010, significant and rapid change has occurred in the healthcare marketplace in general and the New Jersey healthcare marketplace in particular. Although many of the provisions of the ACA were already in place in New Jersey (guaranteed issue, no pre-existing condition declination, small group market, individual market), these marketplace solutions had been less than successful because they lacked the essential element found in the ACA – an individual mandate for coverage.

From the consumer perspective, the ACA brought about necessary and important changes. Most significantly, it allowed many people who were not insured to gain access to health insurance and healthcare itself. Although New Jersey had a system for providing care for the uninsured (charity care), it was predicated on an already inadequate Medicaid reimbursement system. Additionally, the limited charity care dollars are allocated politically rather than on the actual delivery of charity care to regional patient populations.[81] Every hospital in the state received charity care dollars even though the charity care provided by suburban hospitals more easily could be shifted to a commercial

[81] Governor Christie announced, in his 2016 budget address, a 22.8% ($148 million) cut in charity care dollars in his proposed budget. Feb. 25, 2016.
http://www.njbiz.com/article/20150225/NJBIZ01/150229882/updated-hospitals-charity-care-funds-are-cut-in-latest-christie-budget

base.[82] Charity care and reimbursement by commercial payers are simply not covering the costs of providing care to the uninsured and Medicaid recipients.

The ACA appears to make a significant dent in the problems of access and affordability. The biggest impact was on the uninsured since the access was so severely restricted for those without any coverage. The ACA also opened access to Medicaid coverage to single males, which previously was nonexistent. However, while the ACA guaranteed access to health insurance, it did not guarantee access to adequate health insurance. Most persons brought into coverage under the ACA came in through Medicaid expansion and are now covered under New Jersey's Medicaid program. This is especially true in our targeted community of Newark. Access to health insurance does not mean access to care.

Concurrent with the implementation of the Affordable Care Act in New Jersey, was the granting of a global waiver to New Jersey Medicaid from the Centers for Medicaid and Medicare services (CMS). This global waiver permitted Medicaid to further extend its existing contracts with Medicaid managed care organization (MCO) and assign essentially all Medicaid beneficiaries to an MCO to manage their care and assume risk of the cost of care. Conceptually, proper care management and shifting of the risk from Medicaid to the MCOs would result in lower overall costs with a financial margin for the MCOs within the allowed medical loss ratio. Unfortunately, reality is far more challenging and complex. Managed care organizations and the delivery systems continue to struggle to find the proper balance. Confounding factors include attribution of patients, understanding patient engagement, deep social challenges, a completely broken fee-for-service financing model with perverse incentives for all parties, lackluster adoption of viable value-based contracting approaches and a lack of readiness for the delivery system to assume greater levels of accountability and financial risk. The broken financing system has unwittingly resulted in managed care organization profitability while maintaining one of the lowest Medicaid provider payment schedules in the nation.[83]

As the ACA Marketplace began to stabilize, health plans first moved their attention to competing in the marketplace through lower premium plans by structuring products with narrowed or tiered networks. In the fall of 2015, the largest health plan in the state, Horizon Blue Cross Blue Shield of New Jersey (Horizon), announced a new tiered network health product named Omnia. Providers are grouped into two tiers; enrollees pay a higher out of pocket cost for care from providers in Tier Two. Using this type of significant financial disincentive, the product pushes enrollees to seek care almost exclusively from a Tier One provider. It is unclear what the impact of this new tiered product will have on the financial viability of safety-net hospitals. All Trenton hospitals have been moved to Tier Two; there are no Tier One hospitals in the city of Trenton. Indeed, in Mercer County, there are only two Tier One hospitals and both are suburban institutions serving a suburban

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[82] It is not clear yet, in the new proposed budget, how charity care dollars would be allocated to New Jersey hospitals for the 2016-17 fiscal year. Ibid.

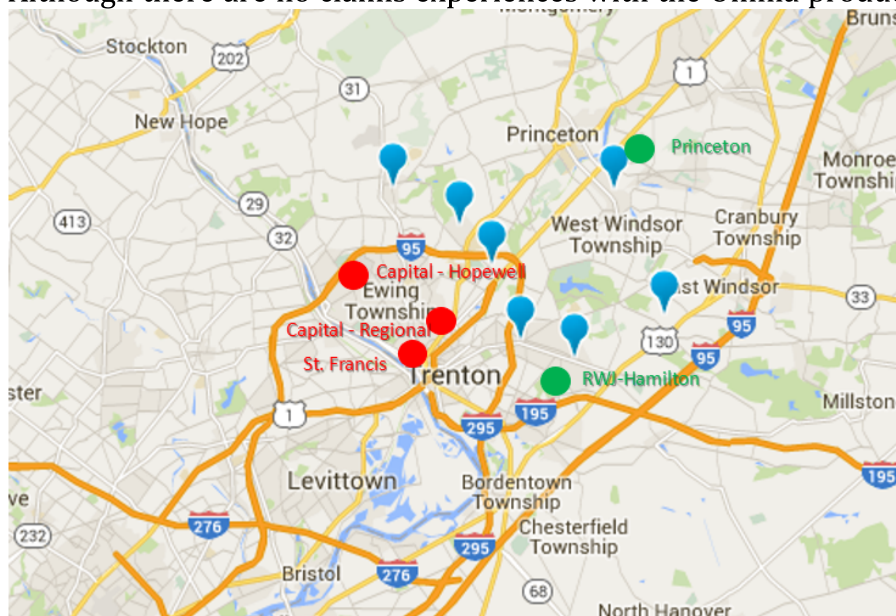
[83] Kaiser Family Foundation report. http://kff.org/medicaid/state-indicator/medicaid-to-medicare-fee-index/ Web. 12 Jan. 2015.

catchment – Robert Wood Johnson University Hospital at Hamilton and University Medical Center at Princeton. The impact of the tiered product from the state's largest insurer is that significant populations will switch their access to Tier One hospitals as the populations in the Marketplace are least able to afford healthcare and therefore are most sensitive to out of pocket costs that using a Tier Two hospital would impose. It also seems unlikely that hospitals excluded from Tier One are going to continue to serve Medicaid patients on behalf of Horizon, the state's primary MCO for Medicaid, after Horizon has extinguished these hospitals' ability to cost shift Medicaid costs to their (Horizon's) commercial base.

Access is not the only concern. Quality should be an important factor in evaluating the current status of care in Trenton as well. Using the national program for evaluating hospital quality, the Leapfrog Hospital Safety Score, both Trenton hospitals (St. Francis and Capital Health – Regional) received a grade of "A", a difficult score to obtain. Of special note, St. Francis Medical Center is the only hospital in Mercer County licensed to perform cardiac surgery. Under the Horizon Omnia program, patients requiring cardiac surgery would be seen initially at the Tier One Robert Wood Johnson University Hospital at Hamilton (a "B" rated hospital) and then shifted to their parent hospital in New Brunswick (a "C" rated hospital)– a referral away from St. Francis, a"A" hospital to a "C" hospital.

Due to low reimbursement in Medicaid and without the opportunity to cost shift payment shortfalls, Trenton hospitals (Capital Health and St. Francis Medical Center) have been placed at significant risk if they can survive at all. Furthermore, there is no cost effective transportation between the city of Trenton and the tier one hospitals in Mercer County.

Although there are no claims experiences with the Omnia product yet, there is no question that, as it is currently configured, this product, which is being offered by the health plan with the largest market share in the state, may negatively impact access to care and may decrease overall revenue to safety net hospitals. An alternative view is that the product will be attractive to those who could not otherwise afford health insurance and that its presence may further the move towards alternative payment and delivery models. See this map. Red dots are Tier Two hospitals and green dots represent Tier One hospitals.



It remains to be seen whether this product will result in not only a shift of hospital admissions (which it undoubtedly will) but also a shift in provider loyalty which, for the already challenged safety net hospitals, could have a catastrophic result. Physicians also will respond to reimbursement. If they do not believe that their patients can gain access to them because of their involvement with a Tier Two hospital, they will switch their loyalties (and their patients) to a Tier One hospital. Geographic and economic reality may force the State to make some accommodations for safety net providers but it remains to be seen whether this lifeline will be thrown in time to save at risk hospitals and direct care providers. Meanwhile, safety net providers in Trenton may need to rely upon philanthropic funding to stay afloat to meet the needs of those they serve.

As ACA provisions continue to be implemented and more enrollees seek coverage in state and federal Marketplaces, we can expect further initiatives by the federal and state governments to limit cost. Indeed, the Governor's 2016-17 budget proposal includes a significant reduction in charity care dollars. And because most of the state cost is borne in the Medicaid program, new cost cutting initiatives will directly impact providers serving that market. The safety net crisis has never been greater.

There are emerging opportunities to improve care delivery in terms of cost and quality, but some require changes in licensure and regulation. Telemedicine innovations are growing in popularity but are primarily health plan initiatives targeted to their commercial members; few telemedicine innovations are seen in Medicaid services. Additionally, there have been state efforts to restrict access to mental health care in primary health delivery areas by establishing restrictions on primary care practices such that primary care patients cannot sit in the same waiting areas as mental health patients. While well-meaning in intent, it has created havoc in primary care practices and clinics. These restrictions had a chilling effect on integration of primary care and behavioral health services. Although it has yet to be announced, the State appears to be prepared to grant some relief in this area.

The Henry J Austin Health Center (FQHC) in Trenton has received a grant for five satellites throughout the city. These satellites are linked with community agencies to offer primary care services to the agency's clients. Services are limited in scope and the satellites are open for a limited number of hours per week, so there has been limited effect on increasing access to care. The satellites will funnel much of the delivery of care through the Henry J. Austin Health Center which gives patients little choice of services and could close off some opportunity to a new market entrant.

Finally, because of the lack of direct profitability in the Medicaid/safety net environment, pre-and perinatal care and birthing services are especially at risk in Trenton. State intervention and cooperation from secondary and tertiary providers (hospitals, NICUs and PICUs) with perhaps a NP-led model, will be required.

In addition to primary care, there are also issues with hospital care. St. Francis Medical Center has been in financial difficulty for some time. And Horizon's decision to exclude them from their the preferred Tier One status limits St. Francis' ability to cost shift, further

exacerbating their financial strain. Although the hospital is part of the national system, Trinity Health, Trinity has been cutting loose hospitals with marginal financial performance – especially in safety net environments – throughout their 83-hospital system.

Certainly the loss of St. Francis Medical Center and Capital Health System in providing care within the City of Trenton would seriously limit health service access for the needy.

Key Findings
The implementation of the Affordable Care Act has brought many uninsured individuals into Medicaid programs, straining an already overburdened healthcare system in Trenton. Low reimbursement rates from government payers and provision of uncompensated care to undocumented individuals challenge the fiscal strength of city hospitals. Adding to this problem is the lack of a diverse payer mix, especially the more generous commercial payers. Trenton's two hospitals already are struggling financially and recent changes further complicate their stability. Trenton's hospitals have high quality of care yet patients under the Horizon Omnia plan would be financially incentivized to steer away from those hospitals to receive care in lower rated hospitals at Hamilton and New Brunswick. Some services, such as prenatal and perinatal care, are virtually unavailable in Trenton and are particularly impacted by the lack of sustainable funding.

IV. Stakeholder Interviews

To supplement the reports and statistics in analyzing the status of care in Trenton, a series of interviews and surveys were conducted with a variety of stakeholder groups and individuals to better understand the unique features of the community, the current resources available, and the unmet service needs. These interviews, advisory group meetings, focus groups, and surveys informed the process of needs assessment and provided an important narrative to better understand the statistics. This process identified relevant background information to identify the range of services that can/should be offered in the community and contributed information as to what type of service model would be feasible. Following are summary reports from a wide range of stakeholders representing the business and philanthropic communities, government agencies, religious organizations, voluntary and civic organizations, healthcare providers/insurers/health boards/mental health agencies, educational institutions, and others. A focus group in Trenton also provided us with patients' perspectives on the experience of care in Trenton.

A. Business Community and Foundation Support

The Business Community and Foundation Support Analysis was initiated to achieve three goals:

1. Determine the business communities' assessment of the need for primary care services in Trenton and Newark, and specifically, whether employers would have a need for particular healthcare services for their employees.

2. Assess the business communities' interest in funding specific healthcare initiatives in Trenton and/or Newark.
3. Determine the level of foundation interest in supporting nurse practitioner practices in Newark and/or Trenton.

To meet these goals, the Project Team interviewed key business leaders in Newark and Trenton, representatives of the payer community, and individuals representing the philanthropic community. In addition, an online survey for the business community was developed and sent to the business leadership in each community. Given that much of the feedback was elicited from organizations representing employers and/or foundations or payers that reach both communities, and also the limited survey response, results for Trenton and Newark are combined in this section.

1. Employer/Corporate Assessment

The Project engaged individuals known to corporate leadership and others from the business community in Newark and Trenton to gain their views on the health of their community and the need for additional primary care services. We sought input into the health status of individuals working and living in their respective cities. A key objective was to ascertain the extent to which employers would be willing to directly or indirectly support an APN-led primary care center, as well as their views on related services. Towards that end, discussions were held with individuals who could provide guidance and insights into the content of an employer survey and who could also identify business dynamics that might help or preclude employers from participating in this effort.

Clearly, the design and objectives of the proposed Project in and of itself created some significant barriers to employer participation. This includes the fact that a large segment of the population to be served may be unemployed or underemployed. Also, the poor or near poor in both Newark and Trenton may be receiving Medicare or Medicaid, therefore out of the workforce. That being said, there is no question that despite these dynamics, both large and small employers have a vested interest in the health of their local communities. From a business perspective, a healthy community may provide a more productive workforce, with reduced absenteeism. A "business healthy" community promotes a less costly business environment. In that spirit, business leaders took the time to respond to the Project Team and offered thoughtful input. It appeared that employers understood that while the services provided through the proposed Project might not directly impact them and their employees, they could support the overall health of their communities, and as a consequence, enhance their broader business interests.

To gain insight into the business community in Newark and Trenton, we reached out to organizations (below) that represent large and mid-size employers and who seek to influence and support economic and social policy to the betterment of their members and the public. Each of these organizations expressed value in the Project and offered their assistance in sending the employer survey to their members. It was acknowledged that employers were unlikely to complete a survey that might not directly affect their business and employees. However, as stated in the preamble to the employer survey, it is believed

that these groups were driven by the notion that healthy and vibrant communities help draw new talent and retain staff. Most importantly, they understand that supporting community health is good for business and tied to the broader objective of being a good corporate citizen. Nonetheless, the willingness of these groups to support this effort is testimony to their recognition of the importance of community health as an issue.

Employers Association of New Jersey: Comprised of over 1,000 employers throughout the state of New Jersey representing small, family-owned and multinational companies.

City of Trenton, Division of Economic and Industrial Development: Works to create, encourage, and enhance job growth and promote business retention and development within its borders.

Although we had only 13 respondents to the survey, many were business leaders speaking for a much wider base of individuals who would likely share many of the views set forth in the key findings. For the full Business Community Survey Results, see Appendix 2. Some of the valuable insights from business/community leaders include the following:

- 92% surveyed stated that a new APN-led center providing a full range of services would be helpful to their company and employees.
- 92% agree that a healthier population is good for business and for the community as a whole.
- When asked to rank the outcomes expected from using a primary care center, 92% said better managed chronic conditions and health risks, reduced emergency room visits, and reduced healthcare costs were very or extremely important.
- 75% answered that they would refer employees to an APN-led center in Newark/Trenton. Five respondents would promote the center to customers and other businesses.
- 64% said that there is a need for additional primary care services in Newark/ Trenton.
- 60% said that employees in Newark/Trenton do not have access to conveniently located primary care services that are affordable.
- 58% of respondents said that their employees go to the emergency room and 42% go to urgent care if they need primary care.
- 42% said that they have experience with APN primary care practices and an equal percentage have not.
- 90% of respondents said that if a new APN-led primary care health center, providing a full range of services, opened in Newark/Trenton, it would be helpful to their company and employees.

When asked to “describe optimal health services for your employees”; respondents answered as follows:

- “Good insurance, low co-pays, access to care."
- "Need a comprehensive network of primary care physicians accessible in-network (Horizon). Need a second line of defense of comprehensive urgent care with both early and late hours for non-life threatening illness/accident care; a comprehensive network of specialists and hospitals."
- "Coordinated comprehensive primary care delivered using an interprofessional(sic) team model with easily accessible acute care services that are available 18 hours a day."
- "For employees, the ability to get seen quickly near home or office without going to the emergency room, and in a way that complements the primary care provider.”

Employer/Corporate Assessment Key Insights and Findings

Interviews and surveys indicated that:

- Businesses prefer that their employees receive care in a setting that is convenient (local) to the workplace and reflective of their HR profile.
- Large corporations, through their foundations and community and medical affairs groups, have demonstrated an interest in supporting healthcare programs and services that benefit at risk populations and local needs.
- Employers are open to new approaches to primary care that are easily accessible to the workplace and linked to existing providers.
- Knowledge gained from this survey and interviews, combined with further discussions with employers, may inform the construct of services that has the potential to serve a diverse population in a cost effective way.

2. Payer Support

A critical aspect of financial sustainability for an APN-led practice is to secure adequate reimbursement for services provided from key healthcare payers. In that regard, meetings were held with executives from Horizon Blue Cross Blue Shield of New Jersey and Health Republic. Both organizations expressed a willingness to consider innovative payment schemes that might include bundled payments, grants, etc. Other means of support could be referrals or subsidized payment for certain services.

3. Foundation Assessment

A major challenge to any community-based health-related service that provides care to a largely underserved and at-risk population is financial sustainability. This would be true for the proposed APN-led primary care projects that are being explored for Trenton and Newark. In that regard, a key objective of this Project was to assess potential funding sources to support programs that might otherwise not be as financially secure without external funding. Grants could be used to supplement limited and insufficient reimbursement revenue streams from government payers. Towards that end, preliminary discussions were held with select business and community-based foundations (below) that have a history and profile of supporting innovative healthcare programs and services in either or both Newark and Trenton, and whose mission and purpose appears to be compatible with this Project. The Horizon Foundation is listed below because the Senior Medical Director for Clinical Innovations offered to forward a future grant request in

support of the Project to the foundation at the appropriate time. Some of these foundations may support programs in both Newark and Trenton, while others focus on local needs only. A brief overview of these foundations is outlined below:

- **The Horizon Foundation for New Jersey:** A charitable organization created by Horizon Blue Cross Blue Shield of New Jersey whose mission is to improve the health of New Jersey residents through health promotion, prevention and education programs. The Foundation strives to increase access to quality healthcare for all New Jersey residents, while increasing and enhancing the arts and cultural opportunities.

- **The PSE&G Foundation:** The Foundation invests in programs that align with their focus areas: Sustainable Neighborhoods, STEM Education, Safety and Preparedness, and PSE&G Employee Engagement/Volunteerism. Of particular interest to this Project is the Sustainable Neighborhoods effort that seeks to sustain neighborhoods and strengthen relationships in the communities where PSE&G employees live, work and serve customers.

- **Robert Wood Johnson Foundation/ New Jersey Health Initiatives (NJHI):** The purpose of NJHI is to support community-based projects in New Jersey that address one or more of the Robert Wood Johnson Foundation's interest areas in health and healthcare. The program director of the NJHI was briefed on the project and expressed interest in being kept apprised of the effort proposed through this Project. He was very interested in the concept of an NP-led primary care center addressing the needs of inner city residents.

NOTE: The Nicholson Foundation was not interviewed for this Assessment as it does not provide funding for clinical services. However, it is acknowledged that The Nicholson Foundation has played, and continues to play, a major supportive role in funding important healthcare initiatives and innovative projects to address the complex needs of the underserved in the City of Trenton and other communities in New Jersey.

Foundation Key Insights and Findings

Each of the foundations with whom we spoke (with the exception of the Horizon Foundation), upon learning about the proposed Project, acknowledged the need for additional primary care services for vulnerable populations in Trenton. The Horizon Foundation certainly was supportive, but, at the time of the interview, were in the midst of a corporate strategy reconsideration, and therefore could not give a firm acknowledgment. Nevertheless, all recognized the value of and need for an APN-led primary care service that could be adapted to meet specific community healthcare needs. During our discussions with these organizations, there was understanding of the need for behavioral health support, chronic care management, and wellness and preventive services. Each person we spoke with expressed interest in exploring a proposal for an APN related project. With their strategy reconsideration completed, it would be appropriate to cycle back to The Horizon Foundation.

B. Community Leaders, Policy Makers, and Others – Interviews

Below is a summary of stakeholder interviews that provide a rich data source for this study. In each interview, respondents were asked to describe selected aspects of healthcare in Trenton, identify the strengths of care, discuss a range of barriers to care, and identify their view of "ideal" primary care and the strategies that would be needed in Trenton to achieve that ideal. Respondents were also asked about "sensitive" issues in care provision for Trenton, and finally, were asked about whether they felt the establishment of an APN-led practice was feasible. Interviews ranged from one to two hours in length, and were done either in person or by phone. Due to the rapidly changing environment of care in Trenton, a second set of interviews with the leadership of the Trenton Health Team and a large payer were repeated 6-8 months after the original interviews.

Representatives of the following entities were interviewed:

- Health plans
- Hospitals
- State and local health regulators, including experts in Medicaid
- Nursing schools
- Physician associations
- Philanthropic organizations

Interviews were also conducted with individuals either working for or closely affiliated with the Henry J. Austin Health Center (HJAHC), the Trenton ACO, and the Trenton Health Team (THT). Other interviewees included healthcare practitioners, including nurses and physicians, perinatal experts, attorneys, and nurse executives.

Some key themes emerged from these interviews as grouped below.

Challenges:

Credentialing: In general, interviewees who were not providers or were outside of a hospital's employment believed credentialing was a significant barrier to opening an NP-led practice. Providers stated that the credentialing process is lengthy, time-consuming, and at times, discouraging. Barriers exist to being recognized as a provider by various health plans, and admitting privileges are problematic in area hospitals.

Practice Restrictions: Most felt practice restrictions placed upon APNs (joint protocol/collaborative physician) were unnecessary and function only to add additional cost to the system.

FQHC: All agreed that the HJAHC was crucial to care delivery in the City and is providing primary care to many who are in need. To the credit of the leadership of the HJAHC, major efforts to secure external funding have resulted in a steady stream of grant funding that has supported the services offered and has allowed for expansion of services. However, there is some consensus that the lack of competition to this FQHC in Trenton has allowed the HJAHC to become "complacent" in its provision of care, which has resulted in poorer service delivery. A lack of accountability was another reason cited for the HJAHC's failure to

perform more efficiently. One interviewee cited the highly politicized environment of the HJAHC as limiting its ability to serve the City effectively. A critique is that the HJAHC often prioritizes its needs over the significant needs of the City at large. A leader at the HJAHC highlighted the high rate of staff turnover as an issue in the Center, explaining that employees see the site as a place to gain experience before leaving for higher paying jobs at one of the other local healthcare facilities. In a counterpoint, some staff described a difficult working environment.

Social Determinants: Interviewees often cited challenges in Trenton to include the high rate of crime and lack of transportation. Gang violence and drugs are acknowledged by all to be prevalent. An interviewer pointed out that Trenton is organized into neighborhoods yet, unlike Newark, care is not generally provided that way. Another healthcare leader mentioned that it is difficult for patients to "get connected" with social services that are available because of language and transportation challenges. A lack of trust of healthcare providers giving care was also a common thread in conversations. One provider commented that the trust issue is particularly prevalent among the undocumented immigrant community which predominates the uninsured population.

Emergency Room Usage: There is overwhelming consensus that primary care is often sought in the ER, especially after normal office hours. Several individuals said the ER is "very frequently" used as a primary care facility; one expanded, saying patients are seeking ER care "in droves." A regulator tied this issue to the many challenges of high poverty rates: while healthcare services are available at the FQHC, if one goes to the hospital, there is a meal and a room as well.

Medicaid Reimbursement Rates: Many underscored the effect of low Medicaid reimbursement rates for the provision of primary care services. Services cost more than reimbursement. Additionally, without payment for care coordination services, it is expensive to effectively serve those with chronic health issues who need a well-coordinated care plan.

Competition: Some raised the issue that new healthcare ventures in Trenton face significant challenges, pointing to the "highly political" nature of the HJAHC and the view that "many providers in Trenton are quite territorial." This competition was seen in both the primary care arena as well as between the hospitals serving the city.

Sustainable Funding for Initiatives: A few individuals pointed to the importance of finding financially viable ways to provide healthcare to the underserved. One pointed out that too often, once the "funding went away," so did the program.

High Utilizers: The general consensus is that there are many high-need individuals in the City. Financial resources and coordinated care are essential resources to help patients who are high utilizers, especially those who are struggling with chronic disease or those with substance abuse disorders and/or mental health concerns. A plan administrator mentioned that poor patient compliance with medications as well as poor diet all led to complications in the sickest patients, driving costs of care even higher.

Underserved populations: Many pointed out that the elderly lack easy access to healthcare. And several said the Latino population was particularly disadvantaged, as one pointed out that this group has more undocumented individuals not eligible for health insurance coverage. A healthcare regulator said it was "practically impossible" for homeless individuals to get primary care appointments and that "patients who are of Asian background experience special difficulty" in accessing care.

Language Barriers: Direct care providers pointed out the inadequacies of the phone translation services, citing a need for better translation services in-house. Others said existing translation services fall short because of the various dialects of the many different immigrants in the City.

Care Coordination: In most of the interviews, the issue of paying for and providing care coordination stands in the way of providing comprehensive and effective care. Of particular note is the lack of integration of behavioral and physical health services. One mentioned this is especially difficult for younger patients. Despite the overall agreement that the Trenton Health Team has brought more coordination, one hospital employee expressed concern about the "silo approach" to healthcare in Trenton. Silos exist at multiple levels of care delivery. At the HJAHC, one leader spoke of the continuing need to bring together the members of the healthcare team, to encourage care delivery that is truly interdisciplinary and interprofessional and not "siloed" within one profession. In another example, "silos" refer to care that is offered through a single agency/clinic/hospital and is not well coordinated or seamless from home to community agency, to clinic/hospital.

Competition: Although a number of interviewees spoke of the ability of the Trenton Health Team to bring together better collaboration, it was acknowledged by many that sensitive areas exist in how the two main hospital systems compete/collaborate. And many raised the concern that the existing FQHC will view the opening of any new FQHCs as unwelcome competition. A leader at the HJAHC framed this as a resource issue, saying that unless a new facility brought new resources, it might pull needed resources away from the existing FQHC.

Poverty and Violence: The issues of poverty and violence came up in almost every single interview. These social factors pose significant challenges to providing a safe and effective healthcare service delivery system in the City. As one regulator posited: "poverty is the overarching barrier to care." Another stated "kids in every part of the city have seen shootings by the time they are 10 years old."

Specialists: This issue was not raised often but one did point out that appointments with Gastrenterology and Urology specialists are particularly "difficult to obtain if you are uninsured."

Strengths:

Trenton Health Team: All agree that the THT is a strong leader in the City and has done much to bring collaboration to the delivery of care in Trenton.

Faith-based Community Leaders: Many interviewees pointed to the Trenton's church leaders as strong advocates for better healthcare delivery and pivotal to system change. They are known to be concerned about lack of health services and are actively engaged in trying to improve care delivery and quality in the City.

Community stakeholder "buy-in": Several interviewees thought the involvement and commitment of local leaders (both elected and community) was a strength to be commended. Many especially acknowledged their willingness to improve healthcare delivery and their desire to "make a difference."

St. Francis Hospital: This hospital was highlighted by some as a community actor that provides high quality healthcare. The hospital was also acknowledged for its "nurses who care."

Trenton Health Information Exchange: THIE was called out as a strong resource still in its infancy but poised to be utilized. It is a real time system that allows sharing of patient information as well as providing population level data for decision-making. There is a dashboard for the community improvement plan and outcomes are being tracked. Technology is also being used to support on-line behavioral healthcare.

Social Supports: Many mentioned the good work of various social supports in the City being provided through government agencies or nonprofits. Those mentioned include Homefront, the Children's Home Society, Greater Trenton Behavioral Health, the Mercer Alliance to End Homelessness, and the Rescue Mission.

Needs:

Prenatal, perinatal, and obstetrical care: There was general consensus that there is a significant lack of maternity care services within the City. (Note: Currently, only Capital Health provides prenatal, intrapartum/obstetrical services. St. Francis no longer provides these services; the HJAHC does not provide prenatal services). One payer indicated that an area of high need was in teen pregnancy and prevention of preterm births. Several interviewees discussed prenatal and intrapartum services offered by Capital and noted that significant resources have been expended in creating the birthing facilities at Capital. This facility also provides OB experience for residents at Capital. One provider felt that Capital might like to "get out from under" providing prenatal care; but was unsure whether it would support a separate nurse-led birthing center.

Services for Underserved Populations: Interviewees agreed in the populations that need more and better services: individuals who are homeless, immigrants, undocumented, and the elderly. These communities have a difficult time especially accessing primary care. Many also raised the issue of inadequate resources available in the city for those with mental health concerns and substance abuse problems. One professional offering social services raised the issue that residents housed at the Rescue Mission were in particular need of routine primary care. These residents currently use the St. Francis Medical Center

ER because the Rescue Mission is only open after 4pm and the HJAHC is closed at that time.), and behavioral health/mental healthcare.

Healthcare for certain conditions: Certain services were identified as unavailable generally to Trenton residents including palliative/hospice care and some specialty care (Gastroenterology and Urology). Care for childhood asthma was felt to be inadequate.

Financial viability: Many individuals articulated reimbursement as a crucial issue. Low rates of reimbursement, lack of reimbursement for case management, and the inability to find financial resources to provide primary care for the uninsured were noted. Financial pressures strain the provision of services. As one provider mentioned, "no margin, no mission."

Increased Access: Healthcare leaders expressed a need for more primary care services outside of usual business hours, as well as more nurse practitioners, social workers, pharmacists, and community health workers with "feet on the street."

Services for a Diverse Population: Translation services, higher level of cultural competency, increased health literacy, and personal safety were all raised as issues in a highly diverse, low income, urban setting such as Trenton.

Opportunities:

The interviewers made several suggestions of opportunities to pursue in addressing the many challenges and needs for Trenton. Among some of the most interesting are:

- Creating a Birthing Center to provide appropriate prenatal care and to focus on reducing Trenton's high rates of C-sections and NICU admissions; Consider breaking out the post-partum visit from the rest of a bundled payment in order to obtain sufficient reimbursement; Assess midwifery as an option for care provision.
- Aligning any new service or center with the HJAHC or the Capital Health FQHC Look Alike as a satellite allowing for greater programming or expanded hours.
- Developing a telehealth program with the St. Francis ER for the Rescue Mission and other social service sites.
- Locating new services in a central location, with a staffing or call system accessible 24/7
- Exploring technological approaches to manage patient care with a consumer-driven focus. The example given was One Medical – a tech start-up to reinvent primary care.
- Supplying pain management services
- Creating a new primary care access point, particularly in the South Ward, working with the Latino population.
- Developing a system of preventive, proactive identification of mothers with early intervention techniques including outreach to grandparents and others who may be

able to assist in the identification process and reinforce the need for compliance with proposed interventions.
- Developing a mobile primary care service that is neighborhood –based.

Interviewees also made suggestions about the approaches that would be helpful in initiating any new services:
- Pursuing investment from payers looking for ideas that "distinguish themselves from the herd"
- Leveraging all community resources in any new venture
- Including strong patient engagement with recognition of efforts to support good health choices
- Securing financial support and creating sustainable viable financial models for projects.
- Developing strong leadership to bring long-lasting collaborations
- Partnering with the Trenton Health Team and the Rescue Mission in any efforts to increase healthcare access.

Support for NP-Led Practice
There was general support for the establishment of a NP-led practice with the acknowledgement that these professionals successfully engage patients in care, connect with patients, and provide comprehensive care. One interviewee said APNs do an "excellent" job of patient care, have "outstanding engagement and relationships with patients," and work "very well" with physicians. One healthcare provider recommended a more expansive view of an APN-based practice to include all levels of nursing in the provision of care within safety net environments. Some warnings expressed during the interviews included:

It was unlikely that any clinic could be successful without the enhanced reimbursement that the Federally Qualified Health Centers (FQHC) enjoy.

There could be some negative response from the physician community to a nurse-led practice.

Some specific suggestions to establishing a successful and viable NP-led practice included:
- Establishing an NP service that would increase the Medicare star rating for the payer
- Obtaining appropriate technology infrastructure including patient portals and allowing for high quality data analytics
- Negotiating with payers for a special pay for performance contract
- Creating a program that is distributed across facilities, and not a new facility
- Creating a program that is "neighborhood based"
- Collaborating with nursing schools in the areas of faculty practice, student placements, and student projects.
- Locating a new primary care access point in the South Ward to service a largely Hispanic neighborhood

While some interviewees felt that a better, more coordinated, and comprehensive healthcare system is within reach for Trenton in three to five years, others disagreed. One individual involved with Trenton's ACO felt that Trenton is "light years away" from having high quality care and systems in place that were that patient-centered. There was a consistent call for more services and a favorable impression of the quality of care provided by nurse practitioners.

C. Community Leaders Online Survey

While most healthcare and related governmental representatives were interviewed in person, a short online survey was created via Survey Monkey. (See Appendix 3) The survey was emailed to social service agencies, educational institutions, the media, and religious, civic, and labor organizations. Despite its short 17 question format and follow up emails and personal telephone calls, in total, only 14 individuals in Trenton completed the survey (two anonymously).

When asked about access to primary and preventative care, the quality and comprehensiveness of healthcare and the affordability of care, most respondents rate Trenton healthcare as "fair" or "good." Generally, there was consensus that the cost of healthcare, insurance, co-pays and medicines is high. There was also agreement that it is practically impossible to difficult to get an appointment for the homeless, immigrant, unemployed and uninsured while fairly easy to very easy for those on Medicaid or who are racially/ethnically diverse.

Most respondents did not know if there are geographic areas where primary care is not available. However, when asked about the use of Emergency Rooms, most said it was either frequent or very frequent.

The survey identified particular areas of need in Trenton: not enough care for mental health or for those who are homebound. Populations in of more healthcare access include the elderly, hospice care for the dying and pregnant women. When asked to name their city's strength, they answered: location, good hospitals, FQHCs, multilingual. All respondents listed crime as a challenge in delivering and receiving healthcare and almost all found transportation an additional challenge. A firm majority agreed that there is a lack of trust in the healthcare providers giving care.

Unmet needs identified by respondents included primary and preventative care, mental health and transportation. One response stated that there are not enough good pharmacies with staff to explain medications.

Few respondents offered answers to the request to identify key community groups that provide healthcare or groups that provide healthcare leadership. Those listed included local FQHCs and local hospitals. It was noted that sensitive and political issues do get in the way of providing healthcare, as well as lack of funding and health disparities.

Only one third of respondents had experience with an Advanced Practice Nurse (APN). However, those that did rated the care they received from good to excellent. When asked if APNs face political, financial or professional barriers, the majority said yes. Nearly all believed that adding more services from APNs would improve their cities' healthcare. Respondents added that APNs could fill the gaps and offer prenatal as well as family care, help with chronic diseases and health education, and provide mental health care.

Key Findings
Interviews with business and community leaders, foundations, and payers have identified consensus that there is an important need for more primary care access in Trenton, especially in the areas of mental health/behavioral health, prenatal services, services for young children and "after hours" services. There was agreement that a different model of care than currently available is desired. There is respect for advanced practice nursing, and acknowledgment of the value APNs could bring to providing primary care to the underserved populations in Trenton. The keys to success in pursuing an APN-led primary care center include involving existing community/neighborhood organizations and local leaders, and developing relationships with existing health facilities in the city. Especially important will be a close relationship with the Trenton Health Team.

D. Patient Focus Group

In evaluating healthcare delivery systems and markets, an important perspective can be overlooked: that of the patient. Perceptions by those who deliver care and those who receive it may not be in alignment. To be sure that we allowed all stakeholders to have a voice in this evaluation of the community and its healthcare needs, we conducted a focus group in Trenton through the Rescue Mission. A staff member in the site offered patients the opportunity to participate. At the time of the focus group meeting, the purpose of this Project was explained. Patients signed a consent form and a media release giving permission for a photo of the session. The focus group participants were asked for some limited demographic information. We gathered their feedback based on a series of questions about their experiences with and thoughts on healthcare in Trenton. Upon completion of the focus group, participants were thanked for their participation.

Six patients agreed to participate in the focus group, including 1 woman and 5 men. The patients ranged in age from 41 to 70 years old. Four participants were on Medicaid, one participant was on Medicare and one declined to answer. Half of the patients rated their current health as "fair" or "poor" and all had seen a healthcare professional in the last three months. Of note, the most common site of a healthcare visit in the last three months was the Henry Austin Health Center (FQHC); all patients indicated that that is where they usually receive their care. *
**NOTE: The Rescue Mission is just across the street from the FQHC.*

1. The Patient Healthcare Experience

Several themes emerged from the focus group regarding how patients experienced healthcare delivery and services in Trenton. On the positive side, patients noted that transportation to clinical services is generally good. Participants felt the primary care offered in the clinic was good, and it was convenient. The FQHC is sited in across the street from where these participants lived.

2. System Challenges for Patients

The experience of care in Trenton had a number of system challenges for these patients.

> Insurance: Insurance, or lack thereof, is a huge driver of access to care. Signing up for Medicaid is a lengthy and time-consuming process. Participants noted a lack of staff present when they go to sign up at the social service agency, and no consistency of staff support through the process. Participants described difficulties such as *"I had to go through five services to get the Medicaid*." One participant noted, *"It took me 8 months to get healthcare" because of problems with social services. AA third said "It's a long process to get in – took me about a year."* Another noted "They gave me a doctor who wasn't in the network. I couldn't see him." Insurance is needed to qualify for medical transportation. Participants felt that insurance is the key to access to care, to how much care you receive, and to the quality of care.

> Waiting: This was one of the two issues that seemed to bother participants the most. Patients described long waiting periods to access social services assistance to qualify for Medicaid or Medicare or for another insurance. Then they wait for first appointments (about a month). One patient said, "I go to the Henry Austin Clinic ut I had to wait a month for an appointment. I just needed my blood pressure medicine, but you have to wait. then they wait for hours in the FQHC to be seen by a provider, only to have a 5-10 minute appointment that often fails to address all of the patient's health concerns. "*I get there and sit for two hours for a 5-10 minute appointment."* Long waiting times in emergency rooms were also a common experience.

> Transportation: Although transportation is not an issue for reaching primary care at the FQHC across the street, the focus group talked about transportation as a barrier to access care when it's needed. They felt that *"a mobile van would help."*

> Respect: This seemed to be the second area of major concern – participants expressed concern about the lack of respect given them. When asked about mental health services, for example, one participant replied, *"Just look at the people wandering on the streets – there isn't much concern (from healthcare professionals)."* Another said, *"The ones who can make a difference should care. The people in healthcare don't care. They don't have love (for us)."*

> Access: Services that are "hard to get" include dental care *"It's really overbooked"*, mental health services, primary care, "after hours" and "same day" care, and social services. They expressed concern about long waiting times for appointments. Mental health services are also difficult to access, with need outpacing availability of

services. Patients felt that more primary care services are needed, especially taking into account "after hours" and "same day" care. A better approach to these issues would, they said, alleviate the pressure on use of the emergency rooms. Emergency care was available, but there were *"long wait times."*

3. Patient Recommendations to Improve Care

When patients were asked "How would you make healthcare better in Trenton?" they suggested a mobile van service. They also said that a better system to help with the administrative burden of social problems that affect healthcare would be helpful. People need help with jobs, housing, food, coordinating referrals, and completing forms for insurance or applications for financial assistance.

4. Patient Perspectives on Advanced Practice Nurse-Led Care

When asked whether they had ever seen a nurse practitioner or Advanced Practice Nurse for care, 100% of the participants said "yes." When asked what they thought about the care provided, one patient responded *"I love my nurse practitioner. She really cared about me."* A second participant said, *"The nurse practitioner I saw seemed to fill in the gaps from the doctor visits. She treated me with respect."* A third participant said, *"My nurse practitioner went the extra mile for me. She tried to help me with other services and helped me get the appointments I needed."* They gave examples of feeling welcomed, having their healthcare needs met and at the same time receiving help with the social problems they were facing. Finally, all focus group participants agreed that having NPs provide healthcare services in Trenton would improve care. The reasons they gave were "*The nurse practitioner is more available. The nurse practitioner knows who I am. I am a real person to her. I feel comfortable talking with a nurse practitioner and the nurse practitioner takes time with me."* A final comment was "The nurse practitioner treats people with love." The completed Patient Focus Group Report can be found in Appendix 4.

Key Findings
The patient focus group identified challenges to healthcare access in the city. From difficulty in signing up for Medicaid, to getting timely appointments and long wait times once in the clinic, patients indicated frustration in accessing care. Of particular concern was a feeling of lack of respect/lack of caring they perceived from healthcare providers. Their experience with APNs was uniformly positive; impression is that APNs care about each person as an individual.

V. Advanced Practice Nurses: Role in Care Delivery for the Underserved

A. The Problem: Service Delivery

There are 180,233 Nurse Practitioners (NPs)[84] licensed nationwide[85] and almost 4,000 licensed in New Jersey. Independent NP practices provide high quality primary care, and are positioned to provide a new patient-centered nursing model of care that meets patients' needs at the community level. However, most of these practices have difficulty becoming financially stable and sustaining economic viability; they function on very narrow financial margins and face the same challenges in creating cost effective business models that physicians face. Like many of their physician counterparts, NPs have traditionally not had the business training and resource support to initiate and build practices that take into account the imperatives of today's increasingly complex healthcare marketplace. Currently it is estimated that only 3% of NPs engage in independent practice.[86] The NPs who own these practices would benefit from learning entrepreneurship and the business of practice management. Also, these practices are not networked, and do not have the ability to leverage the business components of their practices in meaningful ways.

To our knowledge, there is no similar project underway that addresses a multi-modal state-wide approach to implementation of nurse-directed clinical services in a systematic and coordinated fashion. Although there is a long history in the U.S. of successful nurse-managed centers, such as the 11th Street Center operated by Drexel University in Pennsylvania, these are single entities that are not connected to a coordinated system for changing care delivery on a statewide level. The 11th Street Clinic has demonstrated fantastic service delivery that is highly valued in the community. Using an integrative model that takes into account the social determinants of health, the Clinic offers services that blend primary care clinical services with the community services that are needed to support health: nutrition services/cooking classes, fitness center, pharmacy, etc. Other nurse-managed centers around the U.S. include other community services, such as after-school day care and home outreach. There is much to be learned from these integrative models.

The innovative health centers and networked practice model studied here builds on the conviction that a nursing model of care, e.g., care that integrates community-defined needs, quality evidence-based clinical services, and relationship-based, person-centered approaches with attention to the social determinants of health, is key to changing healthcare in New Jersey. Supporting that conviction with needed business, practice

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[84] Nationally, the title Advanced Practice Nurse (APN) refers to Nurse Practitioners (NPs), Clinical Nurse Specialists, Nurse Midwives and Nurse Anesthetists. In New Jersey, NPs are under the legal title of APN.
[85] American Journal for Nurse Practitioners, March 2012.
[86] Rolllet, J. and Libo F, A Decade of Growth: Salaries Increase as Profession Matures, Advance for Nurse Practitioners, 2008. Htttp://nurse-practitioners.advanceweb.com/article/a-decade-of-growth.aspx.

management and entrepreneurial training and proper fiscal support mechanisms will transform the delivery system in New Jersey.

To effectively evaluate the feasibility of establishing an APN practice group in New Jersey, it was essential to hear from APNs themselves so as to understand their ideas and concerns. Through an online survey and three focus groups we gathered the thoughts and ideas of this important component of the Feasibility Study – the health professionals themselves.

In partnership with The New Jersey Collaborating Center for Nursing (NJCCN), the Project Team worked to develop a new and more comprehensive primary care infrastructure for New Jersey that is based on a nursing model. To that end, the NJCCN was charged with:

1. developing, disseminating, and analyzing a statewide needs assessment survey of Advanced Practice Nurses (APNs) focused on business and practice management knowledge and skills, and
2. conducting focus groups to better understand the workforce capacity to initiate and sustain a nurse-led center, specifically as it relates to the underserved areas of Newark and Trenton. The information from the three focus groups provide context to the initial quantitative report.

B. Needs Assessment of APNs in New Jersey

It is important to understand if APNs are adequately prepared for independent practice as it relates to owning and operating nurse-led health centers, especially when considering the challenges APNs would face in underserved areas such as Newark. Therefore, the survey centered on the educational needs assessment around business and practice management skills.

The 24 question survey was distributed to an email list of active APNs; the list was obtained from the New Jersey Board of Nursing (NJBON). The survey was disseminated by various nursing organizations and placed on the NJCCN website. According to the NJ Board of Nursing records, there are 7,166 nurses licensed as APNs and 372 respondents completed the survey.

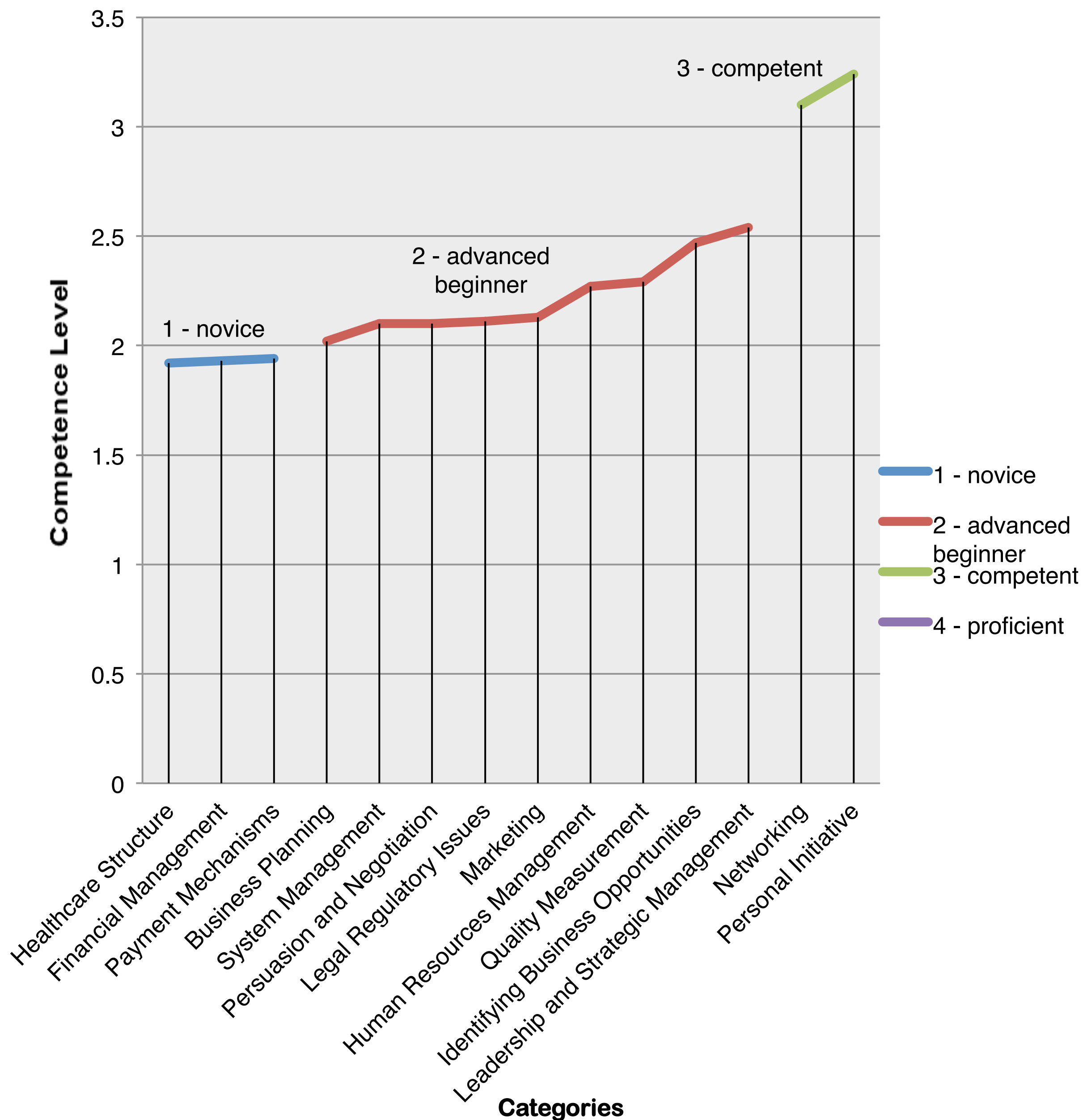
Over 67% of the respondents were age 46 or greater, educated primarily at a Masters level, with the majority (56%) having eight years or greater in practice as an APN. The majority of respondents were credentialed as either family or adult APNs, and were working 40 hours or greater in their practice settings. Participation was evenly split between the north, central and southern parts of the state.

Between 9% and 13% of the APNs self-identified that they own their own practice (there was a discrepancy in the responses to two separate questions related to ownership), while the majority identified that they currently work in an MD owned practice or other types of facilities. It was clear from the survey results that educational programs did not prepare the APNs in business and practice management skills to lead their own practice. While most APNs did not own their own practice, more than two-thirds of the 358 respondents stated they would be interested in owning and operating their own NP practice if certain resources were made available. Participants said they would be more likely to own and

operate their own NP practice if there were resources such as a healthcare business program, practice management resources, and a statewide Nurse Practitioner support network to help finance, set up, and run a practice.

The respondents were asked several questions to determine how to best deliver a business and practice management program and what they would identify as a reasonable fee. The majority of APNs (89.6%) identified that they wanted the program offered in New Jersey - preferably in the central part of the state. Sixty-two percent wanted a hybrid format (both face to face and online), with many also wanting a coach. The cost point for the one-year program identified by the majority 63.6% was in a range of $1,000 -$3,000 dollars per year.

The results showed that, for business and practice management skills, the respondents were at the novice or advanced beginner level. They did not feel confident in 12 of the 14 categories identified in the survey around business and practice management skills. The areas identified as least competent included: financial management, payment mechanisms, and healthcare structure. Respondents assessed their skills highest in personal initiative and networking. Other business knowledge was rated at an "advanced beginner" level, such as marketing, business planning, and human resources. See chart below.



There is a troubling gap of knowledge in understanding the healthcare system and the business of healthcare for a profession that has a high level of educational preparation in their discipline. See the full report (Appendix 5) for a more extensive compilation of comments. This report highlights the need for supplemental information about healthcare delivery, and business and "real world" practice management skills. A few representative quotes are listed below to underscore APN's lack of healthcare business and practice management understanding.

Comments ranged from those who knew little:

- *"I do not know what an external environmental scan is."*

- *"I do not know what HEDIS or clinical metric management is."*

- *"I do not know what a FQHC or an accountable care organization is."*

To those who wanted to know more:

- *"I was never encouraged to own my own practice even though I knew where the needs were."*

- *"Nurses are not typically socialized to pay attention to marketing…unless they have had business courses or experience in the business world…with healthcare being a tremendous business in the Western World, nurses must become more proficient in this area."*

- *"Billing and coding is a very important part of APN practice and should be taught."*

To those who seem to have significant, but disappointing, experience with the business of health care:

- *"One would need at least an MBA to be proficient in health and regulatory policy… or have consulting and accounting services. In other words, it is not enough to look up the current regulations and guidelines. It is wise and effective to obtain experts in the field to assist in areas where you have no practice experience."*

- *"Negotiating business loans is not dependent on the skills or knowledge of the APN. It is completely dependent on the financial institutions giving the loans."*

- *"Negotiating contracts with payers is becoming increasingly more difficult, because most have pre-existing prejudices against APNs. It is extremely limiting for APNs to not be in insurance plans. This impacts their ability to function autonomously."*

- *"I have had many years of experience in high level business negotiations…but negotiating with payers is an absolute nightmare and proficiency is seemingly impossible."*

- *"Credentialing is the biggest nightmare and the biggest loss of revenue due to poor information, little support, no structured leadership or contract structure within the insurance credentialing framework."*

It is encouraging that with proper education and resource access, 67.3% of the APN respondents expressed interest in owning and operating a nurse-led practice. The results of this needs assessment for APNs demonstrate gaps in knowledge as it relates to business

and practice management skills, serving as a starting point to develop an educational program to support APNs in their desire to own and operate their own practices. *NOTE: it is acknowledged that these findings are somewhat limited due to the relatively low participation rate of licensed APNs, despite multiple email outreach efforts from the various nursing associations in the state, and personal outreach through the focus groups.*

C. APN Focus Groups

In addition to the Needs Assessment, The New Jersey Collaborating Center for Nursing collaborated with the Project Team to conduct three APN focus groups to better understand the workforce capacity to initiate and sustain a nurse-led center, specifically as it relates to the underserved areas, such as Newark. These focus groups provide context to the initial quantitative report. See Appendix 6 for the full report of the Focus Groups.

Three focus groups were conducted with participants invited through the Forum of Nurses in Advanced Practice-NJ, the Society of Psychiatric Advanced Practice Nurses of the New Jersey State Nurses Association, and the APN-NJ as well as key hospitals that had a large number of APNs working in their facilities. One hour sessions were conducted at each of the following locations: NJCCN in Newark, NJ; Atlanticare in Atlantic City, NJ; and at an APN conference sponsored by NJSNA in Trenton, NJ. Demographic data were obtained from each of the participants. No follow-up focus groups or additional questions were able to be raised which is a limiting factor. The focus group sessions were recorded with verbal consent from the participants. The 15 questions were targeted at understanding the APNs: 1) vision of what a nurse-led primary care practice would look like, 2) reflections on how a nurse-led practice would look different in the inner city, 3) business and practice management skills needed, 4) the need for a nurse residency model.

A total of 19 APNs participated in the focus groups, representing geographic diversity (10 central, 7 northern, and 2 from the southern locations in the state). The majority of participants in the focus groups were certified, and worked in primary care full-time in an urban setting. Five participants reported being engaged in research, with several of them in school to complete their Doctor of Nursing Practice degree.

1. Major Themes

The overarching reason that participants were attracted to the profession of APN was "to be the best nurse you can be." One commented that ***"****Nursing was always an interest of mine. I wanted to go beyond what the basic scope was to refine my skills, education, and refine my practice and expand it to the maximum."* The holistic approach of an APN was the agreed upon value that APNs offer to the care of the patient and to improve healthcare outcomes.
A participant remarked, *"I think what APNs bring is a patient-centered approach…we try to empower our patients - that is not the medical model."*

Focus group participants underscored the schism between practicing as a clinician and trying to reconcile with the business component. Among some of the skills identified as needed are setting up a business (including billing, contracting, technology, marketing, and technology) and leadership skills (including public speaking, political savvy, change

management and dealing with the competition). Expressing this theme was the comment, "*The business part of it is mysterious to APNs.*"

But APNS in the focus groups felt up to the task identifying their unique skills such as the ability to collaborate, educate, organize, and seek out community resources for patients. One commented, "*They (MDs) don't look at the whole picture, so I think that we teach and that we look at patients in an entirely different way.*"

When asked to envision an APN practice, participants expected a healthcare team that looks at all aspects of the patient, with a patient-centered care philosophy. An APN practice working with inner city populations would require different resources, according to focus group participants, including addressing needs such as patient's lack of insurance, transportation, flexible schedules, and other social determinants. Among the barriers to setting up an APN practice that participants expected were seed money/investment, collaborating physicians, financial viability, and credentialing by hospitals. One APN expressed this concern: *"It took me months to find a new collaborating physician…and so I had to pack up shop, and I had a month to find a new collaborator and move and then it really did come back to the 11th hour to find someone to do it."*

In determining what was needed to overcome these kinds of barriers, the need for funding assistance, clarity in state regulations and better business skills were cited. Participants also supported the idea of a residency program that would bring credibility to an APN practice. *"I think the biggest argument we have, the biggest hill we have to climb, is that {physicians tell patients} we are not as educated and not as clinically trained as physicians. Patients come in and say, "Oh my doctor told me to stop coming—my cardiologist told me to stop coming to you because he has two years of residency and you have none."* Residency programs that focus on the needs of the poverty-stricken populations would need to be innovative and creative. *"That's the trenches {inner city}, and yet those are the people who need us the most. In nursing school, in APN school, you just write an order and send the patient to a cardiologist. In real life you are trying to find someone to take the patient. Nobody wants a Medicaid patient or a Horizon patient. You are sometimes spending an hour trying to get them social services or housing or whatever they need. You soon find out that's the stuff patients really need."*

Some expressed the courage to take the chance to set up an APN practice: *"I think APNs would take the risk. It is not really a risk. It is a way of elevating your profession to that next rung on the ladder. That is how I see it."* Another remarked, *"If you don't take risks, you will never move from A to B. The main thing {risk} would be leaving the company I work for when I have a salary, and good benefits. I would really have to think twice to understand what I was stepping into."*

2. APN Survey & Focus Group Key Insights and Findings

APNs perceive that they are unique in that they use a holistic approach and are strong collaborators due to their nursing education. The focus groups provided valuable insight and validated the need for business skills and practice management education. However,

key issues were identified in the focus groups that went beyond the educational needs of the APNs. They are as follows:

- APNs need assistance in setting up successful practice models that are sustainable.

- There is a need for a paid APN residency model. The focus groups identified a perceived gap in the new APN's ability to transition from an academic to a practice setting. Many of the nurses entering into an APN role have limited experience practicing as a registered nurse. This can present an issue of credibility as well as a concern related to patient safety and quality of care.

- Residency programs that are in the inner city need to address the unique needs of the population they serve. Inner city patients have limited or no access to resources resulting in the inability of the APN to provide comprehensive quality care. This is due primarily to either limited or lack of healthcare insurance, competing financial obligations, or transportation. This in turn, creates issues in time spent in finding and coordinating available resources. Innovative and creative options for resources should be considered by the APN.

There is a need to develop turn-key resources and funding options for APNs to set up independent practice. This model currently exists for Nurse Anesthetists through their national organization and should be explored as a potential prototype.
These recommendations should be considered in moving forward the ability of APNs in New Jersey to pursue opening their own practices.

Key Findings
Advanced Practice Nurses believe their profession offers comprehensive, holistic, and patient-centered care. APNs in New Jersey show interest in opening their own practices but many lack significant business and practice management skills to do so. There is expressed desire to obtain training to address this knowledge gap. Securing a collaborating physician and obtaining admitting privileges also hinder the opening of APN-led sites. Financial barriers such as lower reimbursement rates for APN services and lack of start-up funds also challenge those interested in setting up their own practices.

VI. Legal and Regulatory Analysis of APN Practice in New Jersey

A review of legal and regulatory issues that affect initiating and sustaining a new Advanced Practice Nurse-led health center in an underserved city is an important part of evaluating the feasibility of the Project. A threshold question faced is whether and how an APN-led entity can function within the legal and regulatory environment of New Jersey and two of its neediest cities, Newark and Trenton.

A. Entity Structure and the Corporate Practice of Medicine

New Jersey has a relatively strict view of the relationship between corporate structure and medical professionals, especially physicians. The New Jersey Board of Medical Examiners'

restrictions on the ability of corporations to hire, and thus control physicians are designed to ensure the independence of medical decision-making. These restrictions on the so-called "corporate practice of medicine" ("CPM") are not shared by APNs. Conversely, APNs, who are regulated by the New Jersey Board of Nursing, may be freely employed by corporate entities, but their ability to practice is subject to the requirement that they collaborate with a physician. To reiterate, other than collaborative model restrictions, there are no professional practice structure restrictions (CPM) placed on APNs by the New Jersey Board of Nursing regulations.

1. Collaborative Practice

The APN's mandatory collaboration is expressed in the requirement that each APN enter into a joint protocol which has been cooperatively agreed upon and signed by the APN's designated collaborating physician. Pursuant to that document, each member of the healthcare team functions within her/his scope of practice using developed guidelines and established formularies where appropriate. The document contains guidelines for prescribing medications and devices for an APN in a specific practice setting. The document must be signed by the APN and her/his designated collaborating physician, and reviewed, updated and co-signed, at least annually. Though the particular language in the joint protocol may vary from practice to practice, each joint protocol must follow the outline defined by New Jersey State Board of Nursing regulations at 13:37-6.3.

Unlike many states, New Jersey does not require the physician to be physically present or within a certain geographic radius of the APN. Nor do physicians need to meet with their collaborating APNs, although periodic review of a number of charts is required. There is no specific number of reviews required, but as the agreement itself must be reviewed annually, the time period for chart review should be at least annually.

2. Collaborative Practice-Prescriptive Scope

The practical import of this protocol may be limited to a level which his or her physician deems fit. Assuming the broadest prescriptive scope within the protocol, a registered and licensed APN may prescribe non-controlled drugs and devices pursuant to the protocol. In order to prescribe Class II-V controlled substances as is allowed by law, the APN must first obtain a controlled and dangerous substances (NJ CDS) license number, followed by securing a Federal Drug Enforcement Agency (DEA) number. In addition, in the outpatient setting, APNs must have their own NPI number and their own uniform prescription blank pads, specifically designed for an individual APN prescriber. Prescriptions must be printed on special paper as required in NJ. New Jersey law is unclear on electronic prescribing,[87] but usual and customary practice is that APNs are using electronic prescribing where it is available in their particular practice setting.

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[87] APN regulations prohibit electronic prescribing yet other regulations specifically permit it for licensed professionals, "such as certified nurse midwives." The two conflicting regulations can be found at NJAC § 13:37-7.9 and 45:14-57.

B. Impact of Physician Practice Proscriptions on APN Ownership

When it comes to operating a healthcare facility, APNs are less likely to face legal difficulty from their own professional restrictions (assuming a satisfactory collaborating physician may be found) than they are to feel the pinch of the restrictions placed on their collaborating physicians, psychiatrists, or psychologists. In New Jersey, an APN may not employ a physician. This is because a person with a broader scope of practice (a physician has the broadest scope possible) may not, in general, be employed by a person with a narrower scope, such as an APN. To state it in another way, a physician may not be employed by or serve as an independent contractor for an APN-owned company, because a physician cannot work for someone with a more limited scope of practice. This does not preclude co-ownership of an entity between allied health professions. Any practice, clinic, health center, or facility owned or otherwise controlled by an APN and enjoying the services of a physician, will have to be carefully structured, in order to ensure that the appropriate licensed healthcare professional is permitted to work there. For example, the APN and physician may have mutual ownership in the practice. Clearly the structuring of the APN/Physician relationship should be reviewed by an attorney specializing in representation of providers. As written in the Board of Medicine regulations, the corporate practice of medicine doctrine, coupled with the collaborative requirement, create a concern for the collaborating physician, if s/he accepts payment. Still, while this proscription is "on the books," contracting and reimbursement of collaborating physicians is commonplace, perhaps more the rule than the exception. We could not find an instance when a contract for APN collaboration was considered by the BME as a prohibited relationship, nor has it been used as an argument by a payer or any third-party against a physician in any reported instance.

In general, where a physician's participation is required for the provision of care, and where the physician expects to be hired by or contracted to the entity, the entity must either be a private practice owned or operated at least in part by the physician, or the corporate structure needs to fall within a regulatory exception. Licensure by the New Jersey Department of Health as a health maintenance organization, hospital, long or short-term care facility, ambulatory care facility, or other type of healthcare facility constitutes an exception to the practice proscription. Clearly the structuring of the APN/Physician relationship should be reviewed by an attorney specializing in representation of providers. There is no question that the corporate practice of medicine doctrine coupled with the collaborative requirement and the likelihood that a physician might wish to be remunerated for his or her collaboration services creates challenges for the creation of a solely APN-owned and operated entity, absent licensure.

C. Primary Care Center: An Example of an Allowable Permitted Practice Structure

Accordingly, an APN could own or operate a primary care center. The state defines "primary care" to mean "the provision by a healthcare facility of preventive, diagnostic, treatment, management, and reassessment services to individuals with acute or chronic illness." The term is used in reference to facilities providing family practice, general

internal medicine, general pediatrics, obstetrics, gynecology, and/or clinical preventive services, including community health centers providing comprehensive primary care. Comprehensive primary care may include the provision of sick and well care to all age groups, from perinatal and pediatric care to geriatric care. Primary care is further characterized by the fact that it represents the initial point of contact between an individual and the healthcare system, by the assumption of responsibility for the person regardless of the presence or absence of disease, by the ongoing responsibility for coordination of medical care for the person, by its family-centeredness, and by its community orientation.

Should the APN wish to own or operate a center meeting the definition of a primary care center, that facility must be licensed as an ambulatory care center. The New Jersey Department of Health ("NJDOH") licenses "all healthcare facilities that provide ambulatory care services, including, but not limited to: primary care…family practice, family planning, outpatient drug abuse treatment, chronic dialysis, computerized tomography, magnetic resonance imaging, extracorporeal shock wave lithotripsy, and radiological services;" and defines an "ambulatory care facility" as a facility that provides preventive, diagnostic, and treatment services to persons who come to the facility to receive services and depart from the facility on the same day. Physicians may be employed by such a licensed entity without fear of violating corporate practice restrictions.

While there is no need for a Certificate of Need for a primary care center, there is significant other regulation surrounding, for example, the physical plant: Any ambulatory care facility that intends to undertake any alteration, renovation, or new construction of the physical plant must submit plans to the Health Plan Review Program of the Department of Community Affairs for review and approval or, in cases of existing construction where no Department of Community Affairs review is required, to the Office of Certificate of Need and Healthcare Facility Licensure for review to verify that the facility's physical plant is consistent with the licensure standards prior to the initiation of any work. See, N.J.A.C. 8:43A-2.4. These requirements may be seen as burdensome, and certainly involve costs. In some cases, the regulators' requirements may be counter-intuitive, such as the enforcement of standards that are interpreted to require separate entrances/waiting rooms for centers which provide both mental health and primary care services. These issues would not arise if the APN pursued a private practice structure, but again, the private practice structure might not allow for the full integration of the collaborating physician unless that physician were an owner.

An additional requirement for licensed ambulatory care facilities is that there must be a physician to serve as medical director, and the medical director or his or her designee must be available to the facility at all times. The medical director is responsible for the direction, provision, and quality of medical services provided to patients, including developing and maintaining written objectives, policies, a procedure manual, an organizational plan, and a quality assurance program for the medical service. This medical director could also, of course, serve as the collaborating physician of the APN. Again, a physician may be hired or contracted by a licensed facility to perform this role, but such hiring or contracting of a physician by a corporation or an APN would be prohibited for most un-licensed entities.

While we cannot identify issues specific to APN-run entities in Trenton, as such, other scope of practice issues need to be recognized in light of the challenges or opportunities they may pose for the needs of the patient population. For example, New Jersey hospitals may privilege or otherwise credential APNs, and permit them to admit or discharge patients. But they are not required to do so. As other aspects of this report reveal, an APN forming a new provider entity will need to be sensitive to the existing relationships and territories formed by other providers. *Note: The New Jersey Collaborating Center for Nursing is currently completing a survey of APNs' ability to admit to hospitals in New Jersey.*

In addition, and most importantly, APNs may be reimbursed in New Jersey from Medicare, New Jersey Medicaid, and some insurance companies. According to the New Jersey State Nurses Association, the following payers credential APNs as providers of patient care: Horizon, Oxford, Qualcare, United Healthcare, Horizon Mercy and Magellan Behavioral Health. Direct reimbursement is granted when services are provided to members of the uniformed services and their families under the Civilian Health and Medical Program of the Uniformed Services Act and federal employees under the Federal Employee Health Benefit Plan. Medicare and Medicaid reimburse approved services at 85% of the rate paid to the physician for similar services.

APNs can also seek reimbursement "incident to" the physician and obtain reimbursement at a 100% rate. The qualifier "incident to" is strictly defined and may not be desirable in a collaborative practice health center setting, because there must be a physician service to which the "incident to" services are incidental. The physician must see the patient with sufficient frequency to demonstrate the physician's involvement in the patient's care. Some of these requirements may defeat the purpose of APN services in needy areas, where the ability to make frequent, lengthy visits is compromised, and where direct physician involvement may not be necessary. "Incident to" services performed by an APN would not be visible on the claim form. The service is submitted as if the physician rendered it.

D. Other Settings and Structures for the Provision of Care

As noted above, APNs may create private practices with other allied professionals, and/or on their own, and may provide services within each of their scopes of practice.

They may likewise, and within the restrictions noted above, form and lead Federally Qualified Health Centers (FQHCs), and look-like FQHCs, hybrid governmental agencies, and private practices located as retail clinics. FQHC's, as NJDOH-licensed facilities, allow for the hiring of a physician without falling afoul of the Corporate Practice of Medicine restrictions. They may form any of the above as a for-profit structure, or seek the tax advantages of non-profit status. They may also form Professional Corporations which are managed by larger corporate entities (Captive PCs) and which contract for services from that corporate entity, or Medical Services Organizations (MSOs).

If the facility is a private practice, an MSO could be hired to take care of all administrative services, including providing the collaborating physician. The administrative services provided by an MSO do not include the provision of direct care to patients. As the

recommendations demonstrate, there are a number of specific areas of need which APNs may fill, and there will be regulatory, structural and operational challenges and opportunities applicable to each endeavor. Given the complex web of relationships between providers with varying scopes of practice, and the corporate practice of medicine, legal advice should be sought before structuring a practice.

Key Findings
Legal and regulatory structures create some challenges to the establishment of NP-led practices. Corporate practice of medicine regulations, which are intended to protect independence of medical decision-making, create APN practice structure complications when securing an agreement with the required collaborating physician. Although legal structures do exist for APM-led practice, careful legal advice is essential in creating innovative models for practice to avoid violating corporate practice of medicine regulations.

VII. Caring for Vulnerable Populations: A Nursing Model of Care Delivery

Newark and Trenton are both listed on the New Jersey Medically Underserved Index and have major unmet health needs. Health disparities in these two cities have been identified for both the African American and Hispanic populations in the areas of early cancer detection, cardiovascular disease, perinatal and well child care, diabetes, and asthma to name a few. Disparities result from a complex mixture of systematic quality and access issues, disease prevalence, and social health determinants (poverty, housing, education/health literacy, etc.). Evidence of these health disparities is found in outcomes such as increased infant mortality, and lower life expectancy. To eliminate such disparities healthcare must be transformed by focusing on improving the quality of care delivered to the individual. Moving toward a system with greater ease of access, more care coordination and deliberate patient engagement has the potential to not only improve the quality of care but also improve health outcomes in a financially viable manner.

To improve health outcomes, care systems or models of care need to address a patient's full engagement in prevention, decision-making, and self-management activities. Patient engagement in such activities is vital to the business of delivering care and essential to achieving the Triple Aim of healthcare: improving the patient experience, advancing population health, and reducing costs. Yet relatively few care systems or models of care operate today with a thorough understanding of the elements of a successful patient engagement strategy supported by sound care coordination practices and improved access. Achieving this level of engagement continues to challenge the healthcare delivery system today in part due to the many definitions of the term "patient engagement." The model described here is formulated using the following definition:

Patient engagement is the active collaboration between patients and providers to design, manage and achieve positive health outcomes. It is collaborative care coordination that is relationship-based with an orientation toward the whole person inclusive of their family or health partners.

It is care that the patient has been or will be actively involved in given he/she has agreed to the care, had input in the plan of care, takes responsibility for self-management, and is care that is therefore patient driven.

We propose a healthcare practice that will be committed to patient engagement as a core organizational value and that has infused that value into all aspects of its daily operations. We propose that this type of practice can best respond to the health problems identified in underserved communities such as Newark and Trenton, and can achieve success by providing consistent care delivered by community health teams led by Nurse Practitioners.

A. Nurse Practitioners Role in Care Delivery

Nurse practitioners deliver primary care in small and large, private and public practices and in clinics, schools, and workplaces. They function in both independent and collaborative practice arrangements, often taking the lead clinical, management, and accountability roles in innovative primary care models.[88] Evidence indicates that patient outcomes on satisfaction with care, health status, functional status, number of emergency department visits and hospitalizations, blood glucose, blood pressure, and mortality are similar for nurse practitioners and physicians. [89]

In its landmark report on the future of nursing, the Institute of Medicine points out that nurses will have a critical role in the future of healthcare especially in producing safe, quality care for all patients.[90] In this time of healthcare reform and system evolution, to best meet the needs of Americans, it is essential that models of care take full advantage of nurse practitioners. They are more likely than primary care physicians to practice in urban areas, provide care in a wider range of community settings, and serve a high proportion of uninsured patients and other vulnerable populations.[91] They have and can play an integral role in team-based and patient-centered models of care. They have demonstrated participation in primary care that has helped to increase access and improve quality especially for those populations in underserved areas through the establishment of nurse-managed clinics, participation in medical homes, and engagement in FQHCs. They have the ability to lead the utilization of the emerging evidence gathered from these multiple

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[88] Naylor, M.D. & Kurtzman, E.T. (2010) The Role of Nurse Practitioners in Reinventing Primary Care. *Health Affairs,* 29 (5), 893-899.

[89] Stanik-Hutt, J., Newhouse, R.P., White, K. M., Johantgen, M. et al. (2013) The Quality and Effectiveness of Care Provided by Nurse Practitioners. *The Journal for Nurse Practitioners,* 9 (8), 492-500.

[90] Committee on the Robert Wood Johnson Institute on the Future of Nursing. (2011). The Future of Nursing: Leading Change, Advancing Health. *Institute of Medicine Recommendations*. 247-252.

[91] Van Vleet, A. & Paradise, J. (2015) Tapping Nurse Practitioners to Meet Rising Demand for Primary Care. *The Henry Kaiser Family Foundation Issue Brief.* January 20, 1-9.

primary care innovation initiatives, and a history of establishing new comprehensive models of care.

B. Existing Models of Care

A number of care delivery models operate today with varying degrees of maturity. Some models are focused on redesign of specific delivery for a group of services, and some are intended to redesign healthcare across the full spectrum of healthcare delivery. Finally, some models build on the current open system using fee-for-service payments with small adjustments; others were set up to create an entirely new concept in healthcare delivery.

Most new models are designed to effect an increase in the quality and efficiency of care delivery for the patient's benefit. These efforts have expanded the notion of who might provide care as well as how care might be delivered outside the traditional face-to-face visit. Team-based care and non-face-to-face modalities for ensuring patient engagement and care coordination have become prominent components of these redesign efforts. The early research regarding the outcomes from these redesign efforts has fostered a rethinking of primary care visits: how much can be eliminated, delegated, or performed outside of the face-to-face visit?[92]

1. The Chronic Care and PCMH Models

Alongside efforts to re-evaluate and reorganize healthcare and staff roles, efforts are being tested to incorporate new ways to deliver care such as round-the-clock primary and specialty care access, virtual care coordination support, home-based monitoring, and interactive voice-response surveillance. These innovations combined with the application of the multicomponent practice changes that formed the basis for the Chronic Care Model (CCM) developed more than a decade ago may well be informative to the development of new models of care that will improve care and impact health outcomes.

The aim of the CCM is to transform daily care for patients from acute and reactive to planned intervention provided by an effective care team. It is a model that provides directionality to care delivered in primary care practices and has application for special populations such as perinatal and well child practices. To be effective, the care team must be informed and skilled, patients must be engaged, and registry-based information systems must be utilized in combination with integrated decision support. These are the elements that have been incorporated into innovations such as the Geisinger Health Systems innovation strategy and are incorporated into elements of the Patient Centered Medical Home (PCMH).

Each redesign effort has focused on enhancing value by explicit care delivery system reform strategies and the associated organizational change strategies. Geisinger, as an example, suggests that sustainable healthcare value is created only when care process

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[92] Pelak,M., Pettit, A.R., Terwiesch, C., Gutierrez, J.C. (2015) Rethinking primary care visits: how much can be eliminated, delegated or performed outside the face-to-face visit? *Journal of Evaluation of Clinical Practice,* 21 (591-596).

steps are eliminated, automated, appropriately delegated to lower-cost but capable staff or otherwise improved through innovation.[93]

As a widely adopted approach to ambulatory care improvement and as a guide to national quality improvement initiatives, the CCM model is an integral part of current patient-centered medical home models.[94] Patient-Centered Medical Homes (PCMHs) are transforming primary care practices into what patients want, focusing on patient themselves and all of their healthcare needs. This is a model that was adapted by pediatricians in response to the complex needs of children and is now being utilized in perinatal healthcare programs.

These practices are also seen as foundations for a healthcare system that gives more value by achieving the Triple Aim of better quality, experience and cost.[95] It is notable that these are primary care practices that have been in existence and therefore not in a start-up phase. Further, there is a vehicle for recognition of PCMHs by the National Committee for Quality Assurance (NCQA). To achieve recognition, practices must meet rigorous standards for addressing patient needs. The model is designed to support the primary care physician in taking the lead role in coordinating care for patients.[96] The core elements of PCMHs include the following:

- Comprehensive Care: meeting the large majority of each patient's physical and mental healthcare needs, including prevention and wellness, acute care, and chronic care. Providing comprehensive care means having a team of care providers.
- Patient-Centered: meeting the care coordination needs of each patient by partnering with the patient and the family, respecting their values and wishes.
- Coordinated Care: coordinating care across all segments of the broader health system.
- Accessible Services: delivering care with shorter wait times for urgent needs, enhanced in-person hours, around-the-clock telephone or electronic access to a member of the care team, and alternative methods of communication as requested by the patient or family.
- Quality and Safety: demonstration of a commitment to quality and quality improvement by ongoing engagement in activities such as using evidence-based practice and clinical decision support tools. Measuring and reporting of the

[93] Paulis,R.A., Davis, K. & Steele, G.D. , (2008) Continuous Innovation In Health Care: Implications of the Geisinger Experience. *Health Affairs,* 27 (5), 1235-1245

[94] Coleman, K., Austin, B.T., Brach, C. & Wagner, E.H. (2009) Evidence On The Chronic Care Model In The New Millennium, *Health Affairs,* 28 (1) 75 -85.

[95] Rich, E, Lipson, D, Libersky,J & Parchman, M. (2012) Coordinating Care for Adults with Complex Care Needs in the Patient-Centered Medical Home: Challenges and Solutions. White Paper (Prepared by Mathematica Policy Research under Contract No. HHSA29020090000191/HHSA29032005T) AHRQ Publication No. 12-0010-EF Rockville, MD; Agency for Healthcare Research and Quality. January 2012.

[96] American Academy of Acturaries. (2014) Examining the Health Care Equation: Actuarial Perspectives on the cost and quality. *Issue Brief.* January available at www.actuary.org.

patient experience, patient outcomes, and population health management is integral to the demonstration of quality.[97]

There is broad support in both public and private sectors for PCMH. The Department of Defense is working to transform all of its primary care practices into PCMHs that meet the NCQA standards for recognition. The US Department of Health and Human Services is helping community health centers and FQHCs to also become PCMHs. As of 2014 there is an increasing emphasis on team-based care, integration of behavioral health, care management of high-need populations, and encouragement of patients and family involvement in practice management.

2. Federally Qualified Health Centers

Federally Qualified Health Centers (FQHCs) are another example of primary care delivery envisioned to transform care. Their primary focus is to provide access where primary care resources are constrained and population health outcomes have therefore been compromised. They are required to be community-centered and must emphasize care coordination. Furthermore, they rely on a range of staff to provide services.

Service sites include permanent sites, which are open year-round in a defined location, seasonal sites, mobile van sites, and intermittent sites operating in a van at locations during certain times of the year. Given their role as community-based safety net providers, FQHCs are subject to fairly extensive governance requirements. They are required to have a board of between 9 and 25 people, with the majority of the members being patients receiving services from the FQHC.[98] The core elements of the FQHCs include the following:

- Provide primary and supportive services that enable access to all, regardless of ability to pay, inclusive of preventive and enabling health services.
- Offer accessible locations and hours of operation including after-hours coverage.
- Hire culturally and linguistically appropriate physicians with admitting privileges at area hospitals.
- Develop and follow a quality improvement plan that is overseen by a clinical director whose focus of responsibility is to support quality improvement and who guides periodic assessment of appropriateness of utilization.
- Have established arrangements for hospitalization, discharge planning, and patient tracking to ensure continuity of care.
- Provide primary care services for all age groups; provide or arrange for dental services, mental health and substance abuse services, transportation services, and hospital and specialty care.
- Establish systems for data collection, reporting, and medical information recording.

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[97] Bielaszka-DuVernay, C (2011) Vermont's Blueprint for medical homes, community health teams, and better health at lower cost. *Health Affairs.*30 (3): 383-386.

[98] MedPac, (2011) Federally Qualified Health Centers, *Report to the Congress: Medicrae and Health Care Delivery System, Chapter 6.* (June): 145-160.

- Maintain a core staff that can address the needs of the population being served inclusive of services delivered by physicians, nurse practitioners, physician assistants, and clinical nurse midwives. FQHCs run by a physician assistant or nurse practitioner must have an arrangement with a physician to supervise these staff.
- Offer an opportunity for medical residents and other healthcare providers to experience care delivery in an ambulatory setting.[99]

3. FQHC Look-Alikes

Federally Qualified Health Center Look-Alikes (FQHC-LAs) are health centers that have been certified by the federal government as meeting all of the Health Center Program requirements, but do not receive funding under the Health Center Program. They provide primary, preventive, healthcare services to all age groups and must have arrangements for dental health, mental health, enabling services, hospital, and specialty care. Grant reporting requirements are eliminated. The care models often reflect the lack of this funding and care is delivered through arrangements with other providers and service groups using a care coordination model. As of 2012, the average FQHC-LA caseload was about 10,000 patients per center compared to 18,000 in funded centers. They provided a total of 3.4 million visits, compared to the 83.8 million provided by funded centers. Medical visits, as opposed to mental health or dental visits, appear to make up a larger share of visits and there is often a limited capacity to provide certain types of care.[100]

The culture of both the FQHCs and the FQHC-LAs emphasizes cultural competence, team-work, and patient-centrism and is well aligned with the PCMH model. Furthermore, they have experience in collaborating on quality improvement initiatives. However, they would need substantive support to make the required fundamental changes in processes and practice culture most notably in the areas of operational efficiencies, delegation of work to other team members, and ability to meet the demand for all services needed by the patients they serve.

4. Nurse-Managed Health Centers

Nurse-managed health centers (NMHC) as a model of service delivery have been present throughout the U.S. healthcare system for the past 22 years delivering services to client groups in various sectors of American society. NMHCs accomplish this through a variety of unique arrangements that evolved out of the opportunities provided by academic environments for nursing education, or through partnerships with academic institutions. Using this model, the healthcare services provided may range from basic health promotion and disease prevention approaches, to full service primary care, inclusive of disease management programs. The essence of the NMHC is embodied in independent nursing

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[99] Katz, A.B., Felland, L.E., Hill, I & Stark, L.B. (2011) A Long and Winding Road: Federally Qualified Health Centers, Community Variation and Prospects Under Reform, *Center for Studying Health System Change, Research Brief.* N0.21, November 2011.

[100] Shin, P, Sharac, J, Rosenbuam, S.J (2014) Community Health Centers: A 2012 Profile and Spotlight on Implications of State Medicaid Expansion Decisions. *Geiger Gibson/RCHN Community Health Foundation Research Collaborative.* Paper 38. http://hsrc.himmelfarb.gwu.edu/spphs_ggrchn/38

practice, with NPs serving as primary care providers, managers, and administrators. Structurally, the NMHC model is led by an NP with educational and experiential qualifications in leadership and supervision. The nurse leader has overall responsibility for the design and implementation of the strategic plan, as well as for the operational and financial systems of the organization. A concomitant goal is that of providing for student clinical experiences.[101]

Changing reimbursements and dependency on academic institutions continue to pose financial challenges for this model. That situation is compounded by their dependency on grants and support from the Health Resources and Services Administration (HRSA), which can end at any time. Literature on NMHCs is still relatively sparse and thus evidence of quality, access, and cost are only beginning to be validated. The populations they serve are highly variable as is the care delivery model. Some centers provide a full range of primary care services while others provide basic health promotion or specialty services.

In an effort to retain a viable practice, some NHMCs have expanded their services. A number of the NMHCs have elected to integrate mental health into primary care to provide a holistic, comprehensive model. In some models studied, visits average 20 to 30 minutes and increased efficiency was noted when primary care visits for less complex patients were initiated by an RN followed by a few minutes with the NP, allowing the NP to focus on the more complex patients.[102] This type of study is foundational to the emerging literature on a new model for NP utilization in primary care to increase productivity and cost efficiency and thus will be discussed as integral to the model proposed for care delivery in Trenton and Newark.

Note: Appendix 7 provides additional insight to nurse-managed clinics and FQHCs from the perspective of national nurse leaders from around the country.

5. Accountable Care Organizations

Accountable Care Organizations, (ACOs) have the potential for delivering a high degree of integration of care, greater communication across the care continuum, and quality-based care delivery. ACOs are comprised of physicians, hospitals, and other healthcare providers who come together to demonstrate cost efficiency and quality care delivery. These "networks" share financial and medical responsibility for the patients served and primary care is at the heart of the care model. To date those ACOs which have been successful are those which have undergone entire system redesign and are employing many of the tenants of CCM. The staffing model and the care model are highly dependent on the population that the network is serving. At its core is a commitment to primary care, care coordination, and real-time information. It is a model currently under evaluation, focused on the ability to improve quality and costs for the Medicare population. The core elements must be demonstrated throughout the entire "system" of care.

[101] Esperant, M.C. R., Hanson-Turton, T, Richardson, M , et al. (2011) Nurse-managed health centers: Safety-net care through advanced nursing practice, *American Academy of Nurse Practitioners,* 24 : 24-31
[102] Ely, L.T (2015) Nurse-Managed Clinics: Barriers and Benefits Toward Financial Sustainability when Integrating Primary Care and Mental Health. *Nursing Economics,* July-August 33:4, 193-202

6. Program of All-Inclusive Care for the Elderly (PACE®)

The Program of All-Inclusive Care for the Elderly (PACE®) provides comprehensive medical and social services to certain frail, community-dwelling elderly individuals, most of whom are dually eligible for Medicare and Medicaid benefits. An interdisciplinary team of health professionals provides PACE® participants with coordinated care. For most participants, the comprehensive service package enables them to remain in the community, rather than receive care in a nursing home. Financing for the program is capped, which allows providers to deliver all services participants need rather than limit them to those reimbursed under Medicare and Medicaid fee-for-service. The PACE® model has traditionally been physician-led with the support of an array of both professionals and paraprofessionals. Social workers are an integral part of the team as are advanced practice nurses. There does not, however, seem to be any direct impediment to this practice being APN-led.

7. Hospital at Home Model

An additional model that is important to mention is the Hospital at Home model that allows patients requiring admission to an acute care setting to consent to treatment at home. Physicians lead an interdisciplinary team in delivering care in the home setting using care pathways. Physicians and nurses are available 24 hours a day. This model allows for intensive care in the least costly, least intensive settings and the outcomes from such programs assist in informing care model development using a team approach with care guided by patient wishes and care pathways.

The Hospital at Home model has informed other care models through its demonstration of the use of interdisciplinary teams in the home setting that deliver intensive care. The Strong Start for Mothers and Newborns and enhanced perinatal care model is one example. This program is inclusive of comprehensive perinatal care and is providing enhanced care in maternity care homes. Care is delivered by a team of nurse practitioners and midwives that includes psychological support, education, peer counselors, and a broad array of health services.

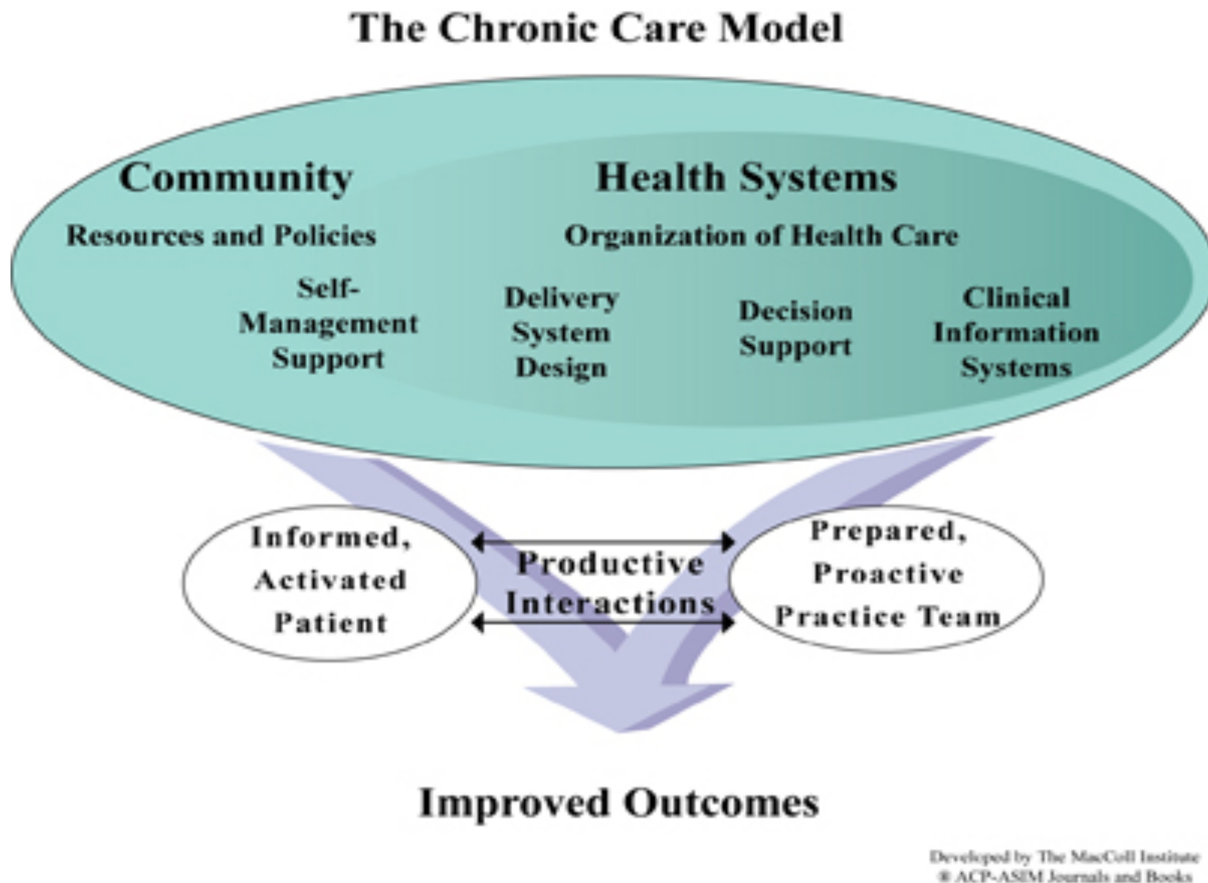
8. Well Child Care Models

Lastly, there is a need to address well child care models and guidance on the care delivery elements of the National Health Promotion and Prevention initiative led by the American Academy of Pediatrics. The AAP provides guidance on the health screening and ongoing monitoring of the well child. The tools developed through this initiative are founded in the health home model devised and promoted by this organization and thus the care model demonstrates the application of core elements of the health home.

9. Chronic Care Model Advantages

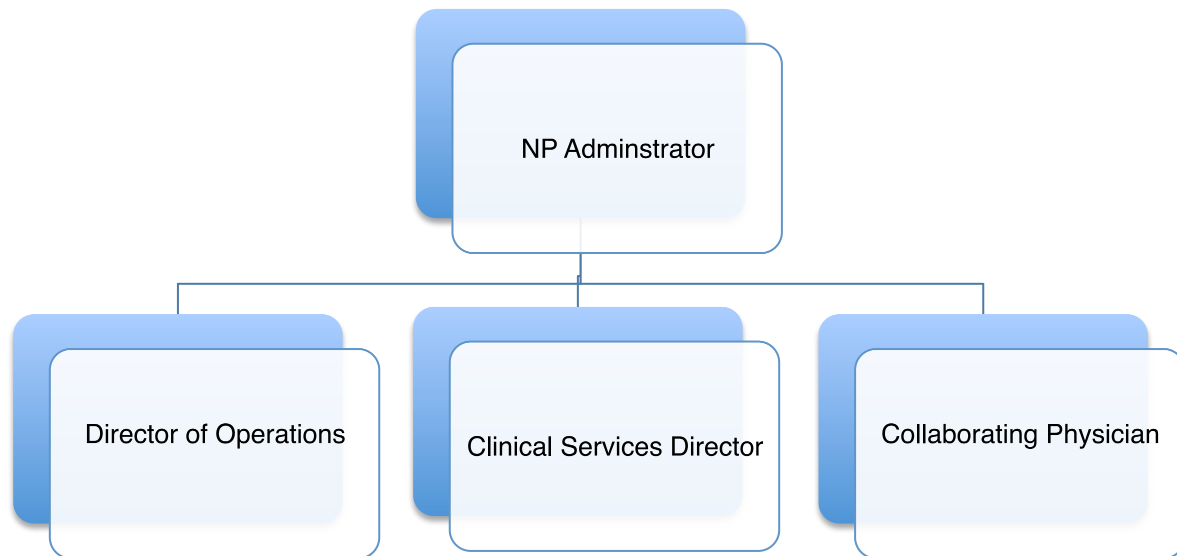
All of the models discussed have some elements of the Chronic Care Model introduced earlier. Again note this framework and its adaptation has been well demonstrated over the years and provides guidance for emerging care models. Furthermore, it has been validated as having application when addressing even the most complex care issues such as diabetes, congestive heart failure, chronic obstructive lung disease, chronic pain, behavioral health issues, cancer, perinatal and well child care, as well as substance abuse. It is notable that

the model supports the concepts being fostered today regarding patient engagement and patient driven approaches. The graphic below identifies the elements of the model that can lead to improved outcomes.



C. A Nursing Model of Care for Vulnerable, High–Risk Populations

After review of selected care models that are focused on care of those who are underserved the following is the model proposed for implementation in Trenton and Newark. The aim of the model is to provide proactive, planned, population-based care through the use of a shared care team approach driven by the patient. Furthermore, the model is intended to be administered by a highly skilled NP. Clinical services will be organized according to the competencies and skills of the NP providers, and guided by an NP who provides direction and oversight to a team. As required by New Jersey law, a physician will be engaged part-time as a "collaborating physician." The following figure shows the basic structure of the model:



Key Model Components

- Patient Engagement
- Risk Stratification
- Evidence-based Treatment Protocols
- Comprehensive & Continuous Assessment
- Real-time Information & Data Driven Decision Making
- Multidisciplinary Teams Inclusive of Lay Advisors
- Redesign of the Primary Care Visit Inclusive of Perinatal and Well Child Care
- Community Partnerships
- Patient Designed Plans of Care
- Adaptable to Specialty Focus: older adult, perinatal care, well child care, and birthing care

Vision: Create healthcare choices and peace of mind for each individual while ensuring his/her engagement in care and full awareness of their health status.

Mission: Improve the health and well-being of underserved individuals by coordinating care, involving them in care decisions, and providing services that will lead to positive health choices and improved health outcomes.

1. The Clinical Model

The clinical model provides a platform for systematic, comprehensive care coordination that closes the gap in the treatment of all conditions or potential condition development. The model blends traditional care coordination protocols with best practice management concepts and use of evidence-based guidelines to proactively manage the health of a population.

The clinical model design is applicable in a primary care practice or any practice specialty that has a holistic care focus and is vested in following patients over time and location. It is therefore a model that is applicable to practices that are focused on care of older adults, well child care or perinatal care inclusive of follow up in birthing centers. Each of these practice areas require a commitment to care coordination that allows for holistic care and care continuity to achieve significant health outcomes.

Care coordination is team-based and utilizes lay advisors to engage patients at the level of their interest and understanding. The model, led and implemented by NPs is intended to:

- Integrate primary, acute and long-term care services into a patient-driven, seamless system of care that patients can engage with and understand.
- Provide each individual with a timely and convenient assessment of their medically necessary healthcare needs in the least restrictive and most appropriate setting.
- Focus on preventive, primary, and secondary care that prevents the onset of chronic conditions or slows their progression.
- Involve the patient and their designated interested parties in the care planning process to ensure that the plan is one they can understand and engage with.
- Work in collaboration with all other providers and individuals that maybe involved in the care of the individual.

The recommended model will focus on the changing health issues and needs of this dynamic population. The goal is to deliver an optimal care process where none existed before. The model will provide patient-driven, coordinated care through a combination of:

Clinical Interventions:

- Enhanced primary and preventive care via one-on-one visits with a selected provider or a designee
- Telephonic or other designated follow-up for monitoring
- Collaborative care team approach using lay advisors and reliant on patient

Customized Infrastructure:

- Use of technology with decision support and protocol decision-making
- Enhanced patient access to healthcare information that can be shared with other providers

Innovative Use of Resources:

- Group visits
- Education forums
- Use of lay advisors and medical associates

2. Premise for this Model

The recommended model provides a strategy for helping individuals at risk for or living with an illness or healthcare need, improve their outcomes by engaging in their own care and driving their plan for care coordination and follow-up to prevent unnecessary health complications.

At the core of the approach is the use of nurse practitioners who lead multidisciplinary teams, use shared appointment or group visits, and are open to rethinking primary care visits to eliminate, delegate, or perform activities beyond the face-to-face visit. The proposed model is intended to utilize the CCM model to design the shared medical visits and use the proven methodologies related to cross training and peer group support alongside the use of a registry to identify patients that would benefit from such an interaction. The shared visits offer emotional support and experience sharing that otherwise would not be available to the participants. Furthermore, during the course of these visits, acute care issues are often identified and timely follow up can be scheduled. Such visits and the teams designed to support this care delivery methodology have been well documented as early as 2003.[103]

It is timely to re-envision the primary care visit within the concept of a team approach and consider alternatives to the traditional face-to-face visit. Currently there is data that provides a window into how to shift some components of healthcare to other team members.[104] Activities that this proposed care model would delegate to others include: medication review, preventive care with utilization of guidelines and best practice information, vital signs, and identification of key concerns. The staff to whom these activities could be delegated would be identified as a medical assistant (MA). It is notable that in recent studies, NPs may see 18 patients a day and with support an average of 25 is feasible. The number of patients is relative to the demographics of the population and location of service but is informative. The increase in visits as well as the associated reduction in staff costs makes this staffing model worth noting. [105]

In addition to the MA role, this model suggests that Lay Health Advisors be utilized for those patients with chronic conditions to support lifestyle changes. Lay Health Advisors are

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[103] Watts, S.A., Gee, J., O'Day, M.E. et al (2009) Nurse Practitioner-let Multidisciplinary Teams to Improve Chronic Illness Care: The unique strengths of nurse practitioners applied to shared medical appoints/group visits. *Journal of American Academy of Nurse Practitioners.* 21, 167-172.

[104] Pelak, M., Pettit, A. R., Terwiesch, C. et al (2015) Rethinking primary care visits: how much can be eliminated, delegated, or performed outside of the face to face visit?. *Jouranl of Evaluation in Clinical Practice.* 21, 591- 596.

[105] Liu,N, Finkelstein, S.R, Poghosyan, L. (2014) A new model for nurse practitioner utilization in primary care: Increased efficiency and implications. *Health Care Manage Rev.,* 39)1, 10- 20.

respected community residents who are seen as natural helpers and have been noted to promote better health by encouraging the use of community services and programs and promoting a healthier lifestyle.[106] They become an integral part of the team and may be employed or volunteer.

Registered Nurses(RNs), a case manager, a behavioral health professional, medical-records and frontline staff are other key team members for this proposed model. Every team member shares responsibility for the team's patients. MAs take histories using electronic medical record (EMR) templates and give immunizations according to protocols. Designated team members handle most of the preventive and much chronic care management by combing a patient registry[107] and independently arranging for patients to receive routine preventive care. RNs, using standard orders, treat patients with minor issues such as ear infections, obtain cultures, and handle critically important and time sensitive issues such as managing Warfarin dosing. They do all of these activities independently and input the details into the EMR for later review by the NP. Case managers focus on care coordination needs of the teams' patients and are charged with oversight needed as patients experience a transition such as occurs following a hospitalization, a visit to a specialist, or a visit to the emergency room. Additionally, case managers can arrange transportation, group visits, educate patients about appropriate care settings, educate them on self-management, and follow up with pharmacies to ensure adherence to medication regimens. Behavioral health specialists provide short-term counseling (three to eight sessions), evaluate response to medication therapy, and refer patients to community-based mental health clinicians when more intensive therapy is required.[108]

The multidisciplinary team described above utilizes a risk stratification methodology to classify patients into health or social risk categories that are clinically meaningful, determine the risk for acute health issues, and predict future healthcare usage. It serves as a guideline to prioritize care needs/visits and matches the patient to the team member most equipped to address the need. Risk is assessed in the following areas:

- Disease or health condition/progression - preventable complications, preventable acute exacerbation of existing condition(s), risk of new condition(s), risk of preventable functional loss, etc.
- Placement or service needs - housing issues, dietary needs, transportation needs
- Utilization patterns - emergency room visits, primary care visits, urgent care or retail clinic use
- Co-morbidities and complex medication regimens

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[106] AHRQ Healthcare Innovations Exchange, Community Partnerships

[107] A patient registry is used to evaluate specified outcomes for a population **defined** by a particular disease, condition, or exposure, and that serves a predetermined scientific, clinical, or policy purpose(s). "Combing a registry" is a helpful tool to review patient records as a group to evaluate metrics such as date of most recent exam, results from most recent scan, immunizations, etc. to find ways to improve care.

[108] Bodenheimer, T. (2011) Lessons from the Trenches- A High-Functioning Primary Care Clinic. *The New England Journal of Medicine*. July , 365: 5-8.

The risk stratification process allows the team to provide the most appropriate care, delivered by the most appropriate person in a timely manner. This process facilitates interventions that can prevent or minimize health problems or complications. The initial stratification screening assesses the following domains:

Risk Domain	Risk Domain	Risk Domain	Risk Domain
Physical Health	Emotional Health	Functional Health	Environment
• Medical Conditions • ER or Hospital use • Physician use • Medications • Equipment and treatment use • Symptom recognition • Symptom management	• Overall self-perceived health • Behavioral health and depression • Psychological services use • Support groups	• Ability to perform ADLs and IADLs • Work history • Daily activities • Agency use or support • Work history	• Living arrangement • Support systems • Shopping

3. Populations Served in This Model

The proposed care model is designed to provide individualized healthcare services for individuals who are vulnerable or underserved by the current healthcare system. The goal is to provide services across a full continuum of care settings and in the environments that meet the needs of the population.

Individuals to be served would include:

- Those requiring health promotion, preventive primary care or episodic intensive care for short term conditions or concerns.
- Those with chronic illnesses requiring constancy of attention and guidance
- Those with a functional disability that has high impact and require multiple daily and independent living activities.
- Those who are frail and not able to function well and are at risk for a sudden catastrophic event.

4. Comprehensive, Personalized Care Planning

This clinical model targets those at risk for increased morbidity or mortality due to diseases or conditions or the development thereof. The planning services would include but are not limited to:

Assessment and understanding of individual needs

- Provide for virtual and onsite in-person assessments and education
- Provide for group interactions and sharing
- Provide access to support systems and referral

Recommend a course of action

- Develop a personalized care plan that is jointly established and contains realistic, achievable goals for which progress can be monitored
- Educate the individual on current health issues and risk for development of others
- Assist in navigation of the healthcare system and access

Identify and arrange support services

- Home and community
- Financial
- Legal assistance
- Living arrangements
- Adaptive equipment
- Personal response systems
- Caregiver support/education

Evaluate and Monitor progress

- Ongoing access 24/7
- Proactive planning support/crisis management
- Intervention impact assessment
- Established communication schedules
- Constancy of medication management and oversight
- Change of condition/status oversight
- Care transition management

5. Technology Needs

The above identified services are supported by attention to the achievement of optimum levels of efficiency through the use of technology, applying clinical guidelines to help generate reminder letters, chart reminders, standing orders, and running reports to guide the management of the practice. All services are continuously assessed for cost effectiveness, quality impact, and patient satisfaction.

The types of services are applicable to all populations with the intent that the supporting workflows, the personnel, the scheduling, the clinical decision supports can be developed and adapted to specialized needs as required. The services can be adopted for delivery by a wide range of personnel and would include the use of Lay Health Advisors who can develop and implement a variety of activities to reduce risk factors for the development of complex diseases and promote healthy lifestyles and better health. The need for services and evaluation of their adequacy and impact is core to the clinical model.

Patient centered technology requires the integration of mobile, IOT (the Internet of Things), EMR (Electronic Medical Record), HIE (Health Information Exchange), analytics, and a patient portal. Interoperability is moving rapidly across all industries and to some degree the only technology decisions that a practice can control are their selection of EMR, Patient Portal, and orientation to embrace mobile, analytics, HIE, and IOT. These critical decisions that will need routine evaluation as the landscape rapidly evolves. They will also demand a different approach to human capital considerations. Each team member will

need to embrace technology and translate that comfort level to the patients and their families.

6. Financing

It is understood that in the early implementation phase the staffing model suggested to support quality care that is also cost efficient will evolve overtime. In the initial phases, staff would be recruited who are able to perform in multiple roles and their work would be guided by explicit protocols and the use of a robust EMR.

Furthermore, the risk stratification process allows a small staff to prioritize visits and to plan for visit complexity. The stratification process combined with the use of nurse practitioner students can promote a cost efficient methodology during the implementation phase. Providing for students has long been a commitment of NMHCs, FQHCs, and FQHC-LAs. The unique team model and commitment to patient engagement in care is laden with possibilities for promoting and facilitating student learning not always available in more traditional settings.

Several key variables will need to be balanced over time to remain viable. The following are the major balance points:

- The number of revenue producing staff (i.e. NP's)
- The ratio of patient charts to revenue producing staff (2,300 Charts : 1 NP)
- The ratio of non-revenue producing staff to revenue producing staff. (Maximum 5:1 with no management services, reduced with management services based upon scope of management services)
- Careful selection and calibration of management services support to allow otherwise step-variable expenses to be indexed to revenue and cash flow during the early phases of the organization.
- Careful selection and training of clinical and non-clinical staff to ensure their self-sufficiency in a technology-heavy clinical operation

Under normal circumstances, a care model of this complexity will demand a minimum of 15-20 revenue producing full time equivalents (FTEs) which translates into a total patient population of 35,000 – 50,000 patients. It is virtually impossible to start an ambulatory care operation of this magnitude. In fact, most ambulatory care in the US is delivered in practice sites of 1-5 revenue producing providers. Even the largest group practices in the U.S. often organize their revenue producing providers into 3-5 revenue producing FTE sites. The growing pains tend to be "order of magnitude" complexity leaps as a practice grows with additional providers. As a practice grows from one to three providers to three to five providers, the growth in complexity from adding these additional providers is tenfold. There is another ten-fold growth in complexity when growing again, from five to ten providers and a third growth in complexity from 10-20 providers. These are the typical failure points of a practice and one of the reasons that even large practices tend to organize in practice sites of two to five providers. Successful growth strategies have relied heavily on carefully selected and contracted management service organizations providing revenue

cycle management, EMR, non-revenue producing staff, and staff training coupled with ample supplies of working capital.

It is not unusual for it to take 6 months to a year for a revenue producing FTE to reach their full production potential.

> "The new NP entering FQHC practice requires up to a full year of mentorship by another clinician employee before the NP is fully 'up to speed,' confident independent, and able to manage a full panel of patients."[109]

Others note that employers should expect lower volume in the first year.[110] Impediments include building a patient base, ensuring managed care contracts are in place, ensuring credentialing with each managed care organization, learning practice operations unique to the practice, and developing tight personal patient relationships. Successful organizations have mastered the art of reducing this lag to 30-90 days for processes that can be controlled by better administration (such as contracting, training, credentialing, etc.) and strategically positioning the practice to accelerate patient engagement and retention by proper balancing of clinical site selection, management services, and key strategic relationships based upon mutually beneficial opportunities.

The care model and services are based on the premise that increasing and enhancing primary and preventive care, while providing proactive care coordination and service management, will reduce healthcare costs and supports the individual in the achievement or maintenance of the highest level of functional status possible. Using a team care model allows for a matching of personnel to the needs and wants of the individual and supports cultural or social needs and responsiveness. However, it is critical to note that healthcare cost savings is realized at the payer/purchaser level and not at the practice level. In order for savings to finance the practice level, advanced value-based managed care compensation arrangements must be in place and the scope and scale of population healthcare management intensifies tremendously. In the early stages of the practice, the value proposition for the patient and family must be paramount and engagement with the payer/purchaser community must be timed carefully.

This proposed model would begin operations with a complement of 2-3 revenue producing FTE nurse practitioners and could steadily grow to 8-10 FTE NPs in 24 months and 10-15 over 60 months. It would be essential to carefully develop well-vetted management services arrangements for operations including staffing and technology on a percent of cash flow basis. Operations should be strategically constructed to complement rather than compete with existing key delivery system participants. An example financial model is shown in Appendix 8.

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[109] Flinter, M., Residency programs for primary care nurse practitioners in federally qualified health centers: A service perspective. The Online Journal of Issues in Nursing, 10(3), Sept 30, 2005.
[110] Brown, MA and Olshansky, E. From Limbo to Legitimacy: A theoretical model of the transition to the primary care nurse practitioner role. Nursing Research, 46(1), 46-51. 1997.

Unleashing the potential of nurse practitioners to lead the care effort and drive to innovative programing has the potential to improve health outcomes, improve efficiency, increase patient satisfaction, while reducing care costs. Care delivery can be reinvented.

KEY FINDINGS

There are multiple nursing models of care in operation throughout the nation. This Feasibility Study proposes a healthcare practice committed to patient engagement as a core organizational value so as to best respond to the health problems identified in Newark. The practice model proposed herein includes an APN-led team of nurse practitioners, medical assistants, lay health advisors, registered nurses, and others.

Key components of the model include:

- risk stratification
- evidence-based treatment protocols
- comprehensive and continuous assessment
- data-driven decision-making
- redesign of the primary care visit
- community partnerships
- patient-designed plans of care
- care coordination
- case management
- patient education
- system navigation
- health information technology

To be financially feasible, the APN practice must swiftly meet the criteria for designation as a primary care medical home, achieve necessary patient/provider ratios and volume, and have an appropriate payer mix. Given the strong relationship of social determinants of health to general health status, a practice that provides social services or has access to needed social services, is highly desirable.

VIII. Barriers to Establishing Nurse Practitioner–Led Practice in Trenton

The prospect of a community-based primary care practice run by an advanced practice nurse is exciting because the nature of nursing training, and specifically APN training, is incredibly patient-centric. Nursing has always understood the importance of community and environmental factors, outreach, and patient engagement in terms of preventing disease or disease progression. From the days of Florence Nightingale to the exemplary history of the public health nurse, nursing has demonstrated that caring for patients includes treating their social and economic problems, not simply taking care of sick people.

Lillian Wald, a recognized 20th century social reformer and founder of American community nursing, believed that public health nurses should be involved with the patient's entire neighborhood, and work with social agencies, schools and faith-based communities among others to improve patients' living conditions and overall health.[111]

Despite most efforts, the social determinants of health continue to impact the health status of the people of Trenton. Many residents are uninsured or under-insured and the care provided under the Medicaid system is marginal at best. Factors such as poverty, poor health literacy, and joblessness deeply affect the health of the people in Trenton. Thus, the orientation of the APN to treating the "whole patient" by addressing both the physical/mental health aspects of care and addressing the social determinants of health is sorely needed.

Assuming it is a worthy goal to establish APN community-based primary care practice in Trenton, what stands in the way?

Low resource communities face daunting challenges. They lack the resources that provide the necessary financial capital, workforce, and infrastructure capacity to create, implement, and sustain services to meet demand. In addition, legal/regulatory restrictions, restrictions to APN practice, crime/safety concerns, and "the politics" are also barriers that must be addressed. Each of these is discussed below:

A. Financial Barriers/Sustainability

Financial concerns rank at the top of the list of barriers to an APN-led practice in Trenton. Safety net clinics are at risk because:

- **Payer Mix:** Virtually all of their reimbursement/compensation comes from government-based payers such as Medicare, Medicaid (New Jersey Medicaid reimbursement is one of the lowest in the US) or is not reimbursed at all (uninsured). Throughout the state, in communities at every level of the socioeconomic ladder, healthcare providers are forced to shift revenue shortfalls from government-based payers to commercial payers. In Trenton, the commercial payer footprint is very small and, therefore, the opportunity for cost shifting is severely mitigated.
- **City Costs:** Added costs for a clinic located in Trenton contribute to the expenditure side of the budget and must be addressed in the financial plan for a nurse-led practice. For example, to protect patient and provider safety in a high crime environment, costly security and alarm systems may be required. Also, there tends to be more infrastructure cost for permitting and taxes than one might find in a more suburban setting.
- **Reimbursement Levels:** APNs are reimbursed for care at a lower level than their

[111] Fee, E and Liping, B. (2010). *The Origins of Public Health Nursing: The Henry Street Visiting Nurse Service*. Alma, MI: American Public Health Association.

physician colleagues. Both Medicaid and Medicare pay the APN 15% less than other healthcare providers giving exactly the same service. Commercial health plans often follow the strategy in their own payment structure, adding to the financial challenge of operating an inner city NP practice. (Note that the costs for an APN-led clinic to cover staff, supplies, and other administrative costs are not lower than the costs in other practices.)

- **Patient Population:** Trenton has a high proportion of undocumented immigrants, for whom there is little to no reimbursement. In most cases, an APN practice, while highly motivated to provide care to the community that needs its services, simply cannot take on the added financial burden of unreimbursed or poorly reimbursed services. To be able to offer services to the underserved, some means of obtaining adequate reimbursement for costs to provide healthcare to this undocumented population must be arranged.
- **Consistent Funding:** Many philanthropic organizations have provided critical funding for important initiatives in the city of Trenton. However, funding can be short-lived, and without replacing that funding with another, more stable and ongoing revenue source, great programs slide into oblivion. Without consistent funding, it is difficult to build systems, retain staff, invest in infrastructure and build a patient/client base. Long term commitments from funders are needed to promote stability of programs and enhancement of good ideas. Also, greater coordination across foundations could enhance success factors and create a broader, more committed source of funding for important health programs.

B. Workforce

Interviews with agencies in Trenton revealed that recruiting and retaining a qualified NP workforce is a concern. Salaries are lower compared to more affluent areas of the state. Those who are hired do not have the background in the business of healthcare or practice management that they need to function effectively, and there is no extended training time for them to feel comfortable managing a very medically and socially complex patient population. The push to see patients is overarching, mentoring is highly variable, and often absent. And the resources needed (social workers, therapists, colleagues, support staff, etc.) are frequently limited, making practice feel overwhelming. These problems may be exacerbated by safety fears if clinicians don't feel secure getting to and from work or while at work.

C. Infrastructure

Patient and other stakeholder interviews reveal that the transportation infrastructure to support access to care is variable. In addition, there are long delays in receiving assistance with applying for Medicaid, and long waits in the FQHC and ERs for care. Additionally, healthy living supports are virtually nonexistent. Although efforts are underway to improve daily living, Trenton doesn't have the resources or infrastructure in place to support a sufficient number of safe playgrounds for children after school, or to provide markets that carry fresh fruits, vegetables and other healthful products.

D. Legal/Regulatory Barriers

Professional barriers and city and state regulations are barriers to APN community-based practice in Trenton.

- **APN Scope of Practice**: Although APNs are permitted to provide full-scope primary care, they cannot do so without a collaborating physician. This requirement controls many aspects of the practice, including physician agreement as to what the nurse can prescribe within the practice. The collaborating physician must also review some patient cases for quality assurance. This creates a practice barrier (finding a physician who will agree to this role), a legal barrier (finding a way to do this without violating the New Jersey corporate practice of medicine rules) and a financial barrier (funding an additional practitioner at some level to meet this collaboration requirement in an already flattened reimbursement environment). Many physicians charge a monthly fee to serve as the collaborating physician even though the actual time commitment is minimal.

- **Admitting Privileges**: Although New Jersey law permits healthcare facilities to allow APNs to admit patients, such privileges are often denied by the hospital review board, which is controlled by the institution's medical staff. Without the ability to get patients admitted into hospitals, nursing homes, psychiatric institutions, rehabilitation centers, and other facilities, a primary care practice may not be practical or prudent. Certainly, this situation would require a "work around" strategy to ensure needed services are provided.

- **City/State Regulatory Barriers**: It is unlikely that there are intentional regulatory barriers to the establishment of responsive primary care centers in Trenton. Still, the regulatory road to healthcare is frequently blocked by well-intended regulations which may do more harm than good. The scope of practice regulations described above, emanating from the Board of Medical Examiners and the Board of Nursing (both governed by New Jersey's Division of Consumer Affairs, headquartered in Newark) are an example. Similarly, the State Department of Health's interpretation of licensure standards for ambulatory care facilities' waiting rooms may preclude the sharing of waiting rooms between pediatric populations, and those who may have mental health diagnoses. While the purpose of this restriction may be safety, it creates cost and efficiency barriers for all providers in the delivery of primary care services to both children and the rest of the Trenton population, who suffer from co-morbidities including mental health diagnoses.

E. Safety/Crime

The high rate of crime is a significant environmental factor in Trenton. The city's crime rate is higher than the national average across all communities in the U.S. at 36 crimes per one

thousand residents.[112] The chance of becoming a victim of either violent or property crime in Trenton is one in 28.[113] Violent offenses tracked include rape, murder and non-negligent manslaughter, armed robbery, and aggravated assault, including assault with a deadly weapon. NeighborhoodScout found Trenton to be one of the top 100 most dangerous cities in the U.S.

Compared to the State of New Jersey, Trenton's "crime rate is higher than 91% of the state's cities and towns of all sizes."[3] A high crime rate has a direct effect on healthcare - not only from the injuries or psychiatric effects, but also by impeding access to care, especially in the evening and at night. In this Feasibility Study, patients said they would not leave their homes in the evening because "it wouldn't be safe." This leads to overuse of the emergency room and ambulance services, two services that drive up healthcare costs. And, as noted above, a high crime rate makes it hard to recruit NP providers and difficult to schedule NPs to work extended evening hours.

F. The Politics of Healthcare in Trenton

The lack of sufficient resources breeds a culture of competition, rather than a patient-centered collaboration**.** In this environment, the Henry J. Austin Health Center- a Federally Qualified Health Center - is virtually the only option for primary care for the needy. The leadership of the HJAHC is position dominated and under physician control. Interviews of the leadership at the HJAHC showed little interest in collaboration, and in fact expressed clear concerns about a nurse-led practice because that would "take away" resources from the existing Center. The concerns expressed by the HJAHC are in contrast to those expressed by the leadership at Capital Health, St. Francis, and leaders of the Trenton Health Team. These groups would like to see a) more consumer choice in care, and b) another primary care access point, especially one that could address key areas of need (such as "after hours" care). Concerns were raised by many that obtaining credentialing and admitting practices may be a sensitive issue but crucial for an effective APN practice. Forming strong relationships with members of the Trenton Health Team, local leadership in the community, and among the healthcare delivery industry in the City will be essential. It will also be important to establish a positive dialogue with the leadership of the HJAHC, and actively seek collaborative opportunities. For an APN practice to be successful, it will require a community partner, and "new" resources that do not diminish support for HJAHC or another group.

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[112] The crime data that NeighborhoodScout used for this analysis are the seven offenses from the uniform crime reports, collected by the FBI from 17,000 local law enforcement agencies, and include both violent and property crimes, combined. http://www.neighborhoodscout.com/nj/newark/crime/#description Web. January 20, 2015.

[113] Ibid.

IX. Summary Conclusions

Through stakeholder interviews, patient and APN focus groups, online surveys, and literature reviews and research, there is compelling evidence of a continuing need in Trenton for basic primary care services. Further, a greater emphasis on wellness and prevention, chronic care management, and mental health/behavioral health is required. In addition, there are focused needs in specialized areas such as prenatal/early childhood care and after hours/urgent care. The impact of the tiered network health product, Omnia, on the two hospitals in Trenton adds to an uncertain financial condition in healthcare that could impact the city. Further, it is clear that political will, resources, leverage and a laser-like focus will be required to affect the comprehensive changes needed in care delivery, education, employment, housing, infrastructure, and systems to realize a city that embodies a healthful environment. It truly will take all the stakeholder groups - not merely the healthcare community - to achieve this success.

As demonstrated, the health needs in Trenton cannot be met in a traditional medical model of care. Many people are not only dealing with significant medical and mental health problems, their health status is also related to abject poverty, lack of jobs, inadequate housing, limited transportation, poor health literacy, language barriers, high crime, and many other factors. While brick-and-mortar centers have a place in the overall structure of health services, it was impressed upon the Project Team that care needed to be much more accessible; a wider variety of models of care are needed; and ideally, care needs to be geographically located in the neighborhood where people live, work, and play. The importance of more access points was stressed repeatedly by both the Trenton Health Team and individual stakeholder interviews. Recognizing that we cannot fully address any one of these issues alone, a new practice using a nursing model forces the creation of innovative solutions, partnerships, and relationships that can enhance the ability to succeed even with these challenges and in this environment.

A number of factors have set the stage for change in Trenton. The Trenton Health Team (THT) is "a community health improvement collaborative." The THT partners coalesced in 2006 as a result of a report commissioned by the Mayor of Trenton to research and develop a plan for improving the health status of the city and for increasing access to healthcare services, given the relocation of Mercer Hospital outside of the City of Trenton. The report found that residents of the city did not have consistent access to primary care and instead sought care from many disconnected providers, and Emergency Rooms, as needs arose. As a result of the report, the non-profit THT was created with the mission of transforming healthcare for the City by forging a committed partnership with the community to expand access to high quality, coordinated, cost-effective care. A key goal is to promote greater collaboration. While stakeholder interviews talked about the "up and down" course of the THT, and the chronic problem of competition for finite resources, indications are that the current leadership of the THT is actively working to utilize the strength of the relationships to address some of Trenton's significant health problems.

Originally four "founding" institutions (St. Francis Medical Center, Capital Health, Henry J.

Austin Health Center, and the City of Trenton Department of Health), the THT now has more than 60 different community organizations engaged in collaborative efforts to improve care in the City of Trenton. And, they can point to a number of successes that enhance healthcare delivery and outcomes, such as:

•Improved scheduling systems put into place at the Henry J. Austin Health Center

•Implementation of Trenton Health Information Exchange (HIE), a shared data platform for the four founding partners. It provides patient data in real-time to support treatment decisions, and provides a robust database for health information at the population level. The HIE also has a comprehensive analytical platform to more fully understand healthcare needs and performance.

•The Trenton Health Team is one of the three certified Medicaid ACOs participating in the New Jersey's Medicaid ACO Demonstration.

•Securing large grants to provide financial support for key programs, such as:

-*"Healthy Communities Create Healthy Citizens"* project-United Health Foundation

-*"Transforming Communities Initiative"*- a 5 year, $2.5 million grant from Trinity Health

- "*Community-wide Clinical Care Coordination"*- services for high utilizers of emergency room services (funded by The Nicholson Foundation)

The business community also seems poised to offer support for an APN-led practice. Ninety-two percent (92%) of our business survey respondents agreed with the idea that a healthier population is good for business and the community as a whole. Most believed that there was a need for additional primary care services for both the inner city population and for the working population and that employees don't have access to conveniently located affordable primary care services. Many employers indicated their support for an APN-led center by saying they would refer their employees to the center and/or promote a new APN center to customers and other businesses. Over a third of the business respondents said they would contract with the center to provide services.

Finally, the philanthropic community, which has already invested millions into supporting the City of Trenton's healthcare, was receptive to the concept of an APN-led clinic. Based on prior funding that these foundations have made available to underserved communities in New Jersey and to Trenton specifically, it is reasonable to think that with the right program, additional foundation support could be available in Trenton. For example, the Horizon Foundation indicated preliminary interest in a proposed NP-led primary care initiative. However, lacking a specific well–defined project and an appropriate partner, the extent to which support will be available cannot be determined at this time.

The barriers an APN clinic will face are real, but not insurmountable. After reviewing nine models of care that have been tested in primary care settings and reviewing the elements of success in each of them, the Project developed an APN care model that we believe encompasses the necessary pieces to be successful and sustainable. In addition, we have identified key criteria for successful implementation of such a practice.

X. Key Findings

Key findings are presented in summary form herein. We have included findings for both Newark and Trenton, as well as specific findings related to Trenton alone:

A. Findings for BOTH Newark and Trenton:

- APN Practice Support: There appears to be a high acceptance of the nurse practitioner as a primary care provider - acceptance from stakeholders, policy makers, payers, patients and the business community.
- Partnering Hospital: A cooperating acute care hospital will optimize the success of any APN primary care service.
- Inadequate Public Health System: Both cities suffer from a lack of public health infrastructure and coordination.
- Lack of Oversight: Although both cities have a Department of Health, neither exercises regulatory oversight in a consistent and ordered manner.
- Poor Linkage Between Payer and Needs: The public health needs vary greatly in these underserved and impoverished environments, especially for the poor, but those which determine the public health services that will be delivered are those who pay for them – capitated Medicaid HMOs and, to a lesser extent, Medicaid itself.
- Profits Over Care: Unfortunately, both the government and the health plans are focused on profitability within a rate-compressed, capitated environment, rather than on the overall health of the population.
- Competitive Environment: The relationships between the various provider entities seem more competitive than collaborative; this competitiveness is especially evident between the hospitals and among the Federally Qualified Health Centers.
- Community Buy-In: An array of community leaders and organizations identified through this study could be very helpful in seeking support from the business and philanthropic communities for an APN-led, community-based primary care practice. This might include, but not be limited to, assistance through their foundations, securing patient referrals where and when appropriate, as well as providing political and community insights.

B. Findings for Trenton

- Primary Care Options: Currently, there are few options for primary care services in Trenton. However, the Henry J. Austin Health Center is expanding its outreach to five additional sites, and Capital Health is initiating an FQHC Look-Alike. The effect of these additional resources is not yet known.
- Locally Delivered Healthcare: The main option for patients seeking primary care at this time is the Henry J. Austin Health Center. There is a strong feeling that there is a need for another access point that offers a different model of care. The South Ward has been suggested as an area that would benefit from another primary care access point.

- Local Identity: Like Newark, Trenton is composed of defined geographical communities. For a new model of care to be successful, it needs to be based in a local neighborhood, and have the local community's support.
- Key Needs: Prenatal and maternity care are inadequate and desired. In addition, there is an ongoing need for same-day care after hours to alleviate the continuing use of the emergency room as a locus of primary care services. Also, there is an ongoing critical need for behavioral health/mental health care and substance abuse services.
- Partnering Potential: Either Capital Health or St. Francis may be interested in partnering with a nurse-led practice to offer a new primary care access point, though may not be able (or willing) to invest financially in such an opportunity. Also, the two hospitals handle a significant number of the emergency rom load in Trenton and, together with Horizon New Jersey Health (Horizon's Medicaid Managed Care Program) could have an interest in mitigating LANE (low acuity-non-emergent) ER admissions. There may also be a partnering opportunity with Horizon New Jersey Health to address the need for peri- and prenatal services. In addition, the Trenton Health Team has indicated an interest in facilitating discussions among the members of the THT regarding the establishment of a new nurse-led primary care access point (See Appendix 9). We have also begun to discuss a public-private partnership opportunity that would create a sustainable model of care serving multiple populations, including those covered by commercial payers.
- Financial Viability: Viability of a nurse-led practice will be dependent upon adequate start-up funding and a payer mix that supports ongoing operations. If the practice has a high percentage of their patient population as undocumented immigrants, for whom there is no source of reimbursement, sustainability will be difficult, if not impossible.

C. Criteria for a Successful APN Practice for Vulnerable Populations

The individuals who will be served by an APN practice are highly vulnerable to both physical and mental illness, exacerbated by social, economic, and environmental factors that determine overall health and well-being. Such a care model emphasizes comprehensive, coordinated, intense services for the vulnerable populations of Newark provided in the least intensive setting. The model centers on ensuring patients' well-being through community-based services, carefully coordinated and focused for those suffering from severe health disparities. This model builds from key elements of the Chronic Care Model, and effective elements from several other models, including the successful Program of All-Inclusive Care for the Elderly (PACE®) discussed earlier in this report. Further, this model is designed to meet the requirements of a health home (federally designated as a Primary Care Medical Home) and even expand on such an offering through technology and home visits.

Critical success factors to a successful APN practice with vulnerable populations include:

- Evidence of sufficient demand for services

- Strong state/local support
- Adequate payment for services
- Sustained organizational capacity and commitment
- Adequate capitalization

In addition, we believe successful new services in Newark must:

- Utilize innovative technology
- Complement and/or extend existing services
- Develop creative linkages to essential services
- Meet a distinct, identified need
- Engage in training the next generation of providers to develop a pipeline of clinicians for the future
- Utilize contracting schemes that reward better outcomes and more efficient use of services
- Provide hours of service that are more sensitive to patient needs
- Provide services that enhance health literacy and medication compliance
- Be based in locations convenient to the population to be served
- Most importantly, provide a safe and caring environment that is patient-centric and known for quality care

Based upon our research, we continue to believe strongly that APNs are the ideal provider to engage in needed services in these communities, but our statewide survey and APN focus groups highlight the need for:

- Robust APN training in business, practice management and entrepreneurship
- Sophisticated IT support
- Targeted practice resources to support providers and ensure quality services

XI. Summary Recommendations

Based on our Community Assessment (stakeholder interviews, surveys, research), Business and Philanthropic Communities Assessment (interviews and surveys), Patient Focus Group, Focus Group of National Nurse Managed Clinic Leaders, and explicit discussions with the leadership of the Trenton Health Team, the Project Team offers the following observations and recommendations:

An Advanced Nurse Practitioner led primary care practice is feasible in the City of Trenton given appropriate funding and community support.

In determining the feasibility of opening an NP-led primary care practice, the Project Team identified the following criteria that must be met:

1. Meet a recognized patient care need.
2. Have one or more identified community partner(s) who share(s) the values of the APN practice model described herein

3. Meet the financial requirements of both potential capital funding for start-up and have an appropriate patient mix that leads to a financially viable reimbursement structure/ payer mix to support the practice over time.

The Project Team believes it is possible to meet all three criteria in Trenton with careful planning in collaboration with the Trenton Health Team. Therefore, all recommendations are guided by 1) patient care need, 2) community partnerships, and 3) sustainability. We believe it is imperative that the recommended services address needs not being met by the current mix of providers to a specific subset(s) of the population. Given the low reimbursement rates for the primary population that would be served, a successful approach should include a package of services, payment approaches, contracts, and grants to ensure a viable and sustainable practice model. Finally, it is important to be sensitive to the local political environment, which indicated the importance of working collaboratively with well-respected community partners to gain support for any new clinical offering.

There are dramatic changes in healthcare access that are, and will be, occurring shortly in Trenton. There is uncertainty about the financial viability of the two urban hospitals. New access points for care are underway through a) establishment of a new FQHC look-alike facility at Capital Health with possible outreach clinics; b) five new primary care access points aligned with the Henry J. Austin Health Center. The effect of these changes on access to primary care is unknown at this time, however the five new access points are tied to community agencies to expand care for the populations they serve. They are not large new clinics. Despite these efforts to provide access to primary care, the leadership of the THT felt strongly that another access point combined with a different model of care, e.g.- nurse-led practice, would make a difference and be supported by the THT.

Based on the changing environment and the response from the THT, The Project Team believes that an APN-led primary care practice can move forward only with more deliberate identification of specific unmet needs, identification of a community partner, and secure on-going funding.

In addition to the finding that an NP-led practice is feasible, we offer the following suggestions that would better ensure success in opening an NP-led clinic in Trenton, or other underserved communities.

Suggestion #1: Support a committed and sustainable nurse practitioner workforce in Trenton. Three strategies are recommended to accomplish this goal:

a. Establish a multi-site, multi-city Nurse Practitioner Residency Program to aid the NP clinic in recruiting and retaining qualified Nurse Practitioners.

A number of interviews highlighted the need to recruit and retain qualified healthcare professionals, including nurse practitioners, who can help fill the health service gaps in underserved communities. Currently, the existing healthcare facilities offer preceptorships for APNs in training, but practice in a community such as Trenton is highly complex and warrants additional time and training. Patients

present with multiple healthcare needs, complicated by significant social problems. In addition, the ethnic and cultural diversity of the population adds additional complexity to care. As previously noted in this report, it can take new graduates a year to become "fully up to speed" and able to manage a panel of patients in underserved diverse communities.

While NPs receive clinical training as part of their educational programs, and have a documented record of success in practice without a residency, a residency program could speed a successful transition from "new graduate" to "full professional status." This is especially true in settings such as those in Trenton, where the patients' needs for care and other services can feel overwhelming. Through intense mentoring, education in needed clinical areas, such as chronic disease management, and ongoing support, there is a greater likelihood that the new clinician will experience a smoother transition and greater job satisfaction, both of which is likely to lead to a more committed practitioner who will serve the community for an extended time.

Studies have shown that individuals who live in underserved communities are those most likely to return to that community to practice after receiving advanced training and education.[114] In addition, individuals who train in underserved communities during residency training are more likely to stay in that community.[115] One residency program for NPs, based in Connecticut, is an example. The Community Health Center, Inc. (CHCI) is a multi-site FQHC. In 2007, an NP residency program was initiated and specifically designed for family nurse practitioners intending to practice as primary care providers in FQHCs. CHCI data show that of the 16 NP residents who started the program since 2007, all but one is practicing as primary care providers in FQHCs.[116]

The Project Team recommends a Residency Program focused on care delivery in low resourced communities. We suggest four areas of concentration: clinical skills, leadership skills, healthcare business/practice management (including use of data), and working with vulnerable multi-cultural populations. The program would be open to all NP graduates, and residents would apply to the practice of their choice and "matched" by the Residency Program. Residents would receive a stipend (usually less than a full time position) from the agency in which they are placed. The curriculum would be a combination of online modules and in-person teaching. The

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[114] Brooks, RG, Walsh, M., Russell, E., Lewis, M. and Clawson, A. (August 2002). The roles of nature and nurture in the recruitment and retention of primary care physicians in rural areas: A review of the literature. *Academic Medicine*, 77(8), 790-798.

[115] Walker, K.O. et al (November, 2010). Recruiting and Retaining Primary Care Physicians in Underserved Communities: The importance of having a mission to serve. *Am J Public Health*, 100(11), 2168-2175.

[116] Flinter, M. (November 28, 2011). From new nurse practitioner to primary care provider: Bridging the transition through FQHC-based residency training. *OJIN: The Online Journal of Issues in Nursing*, 17(1).

New Jersey Collaborating Center for Nursing has expressed interest in administering such a pilot program for Newark and Trenton. With success of the pilot program, it would be possible to expand this program to other low-resourced cities around the state. A Residency Program targeted to the special needs of practitioners in inner city environments would develop a pipeline of clinicians for the future and would be an immediate benefit to the Federally Qualified Health Centers, hospitals, and Schools of Nursing, all of which would be invited to participate in this program.

b. Initiate a New Jersey APN Practice Network to support NP-managed clinics by connecting them with resources.

The Feasibility Study revealed that there are a number of APNs in New Jersey who own and operate their own practices. Establishing a formal network of nurse-owned or nurse managed practices would provide a means for exchange of practice efficiencies, best clinical and management practices, mentoring, and shared savings. There is interest in supporting this recommendation from the state nursing organizations.

c. Expand the nurse-loan program at the state level to include graduate education to support a diverse group of clinicians entering the workforce.

The State of New Jersey has a program in place that provides support for students to become nurses. However, a similar program does not exist to support graduate level education. To assist nurses in moving into advanced practice roles, it is often imperative to offer financial support. This is especially true for individuals from underrepresented communities who may not have the financial resources for education. Initiating a program that supports nurses living and working in Trenton to obtain tuition assistance for APN education would be a step toward securing a stable APN workforce in Trenton.

Suggestion #2: Create a statewide data repository for information about APN practice to track the deployment of clinicians throughout the state.

In trying to identify APNs and their contact information for the survey and focus group components of this study, it became evident that there is not a clean source of data. For example, separate databases of the various APN groups plus information from the State Board of Nursing had to be accessed in order to deploy the statewide APN survey. This makes it difficult not only in obtaining contact information but in identifying various APN specialties, or practice characteristics. A statewide data repository and minimum data set would provide needed information about APN practice in New Jersey and in Trenton specifically. It would provide needed clinical information as well as data to inform and support policy recommendations for the State. The Project Team is eager to provide consultation in the development of a robust database that would serve the needs of Trenton and the State. This Project brought together the APN groups, New Jersey State Nurses Association, Board of Nursing and the Collaborating Center for Nursing to

accomplish our data collection. A similar effort could be mounted to address this recommendation.

Based on extensive research, interviews, focus groups, discussions with community and state leaders, and discussions with the leadership of the Trenton Health Team, it is evident that an APN-led primary care practice is feasible and could play a significant role in providing a new access point for primary care to serve the complex health needs of the residents of Trenton.

XII. APPENDICES

Appendix 1
Healthcare Resources in Trenton, New Jersey

Healthcare Resources in Trenton, New Jersey
June, 2016

(Note: This list was compiled from multiple sources, but is not a complete listing)

Agency	Services	Web Address
Addictions Hotline	Addictions hotline	www.nj.gov/humanservices
Capital Health	Open Access Pediatrics Gynecology	www.capitalhealth.org
Catholic Charities	Alcoholism/Addiction Outpatient Program The Guidance Clinic, Outpatient Partners in Recovery Partners in Recovery New Choices Family Care Program Project Free Mercer County Integrated Medical Care Collaborative Housing & Residential Assistance Services Transitional Housing Assistance (Project Homestretch) Housing Assistance Services (Housing Now I and II) On My Own, Supportive Services Transitional Residential Program PACT (Program of Assertive Community Treatment) El Centro- The Family Resource Center MRSS (Mobile Response & Stabilization Services) Vocational Services – Supported Employment Community Food Pantry Free Store Holiday/Seasonal Assistance Prescription Assistance Project Hope Supportive Services Supported Work	www.catholiccharitiestrenton.org
Childrens' Futures	Childrens' Futures, Children and family support	www.childrensfutures.org
City of Trenton	Outpatient clinic, primary care and communicable disease	www.trentonnj.org
Crisis Ministry of Mercer County, Inc.	Housing Stability The Hunger Prevention Program Harvesting Hope Vocational Service License to Succeed Prescription Assistance	www.thecrisisministry.org
Christ Episcopal Church	Christ Episcopal Church Soup Kitchen	www.episcopalchurch.org

Agency	Services	Web Address
Dept. of Community Affairs	Homeless Prevention Program	www.state.nj.us/dca
Domestic Violence Hotline	Domestic Violence Hotline, Crisis Intervention	www.state.nj.us/dcf/women/hotlines
Doorway to Hope	Doorway to Hope Housing	www.bchtrenton.org/doorway-to-hope
Escher Street	Trenton Area Soup Kitchen Escher SRO Project, Housing	www.eschersroproject.com
Family Guidance	Behavioral Healthcare Services, Outpatient Children's Day Treatment Program, Outpatient Family Preservation/Crisis Intervention Substance Abuse Recovery Program Outpatient Consumer Credit Counseling Services	www.fgccorp.org
Greater Trenton Behavioral Healthcare	Adolescent Partial Care Outpatient Services Integrated Case Management Services Homeless Outreach Program Crisis Diversion Program Corrections Program: Case Mgmt. Intensive Family Support Services, Outpatient Senior Well Being Program, Outpatient Adult Day Treatment, Outpatient Supportive Housing Services	www.mercersourcenet.org
Greater Word for the World Ministries	Food Pantry	www.wordtotheworld.org
Henry J. Austin Health Center (FQHC)	Adult, Family, Pediatric Medicine Walk-In Medical Care Services Dental Care Gynecological Services Behavioral Health, Outpatient Social Services HIV Testing & Counseling SSI/SSDI Enrollment Medicaid Eligibility Eye Group Podiatry Monument Pharmacy/Prescription Assistance	www.henryaustin.org
Home Front	Emergency Services Family Preservation Center: Housing Hutchet House The Cherry Tree Club, Pre-school Food Pantry Free Store Fresh Start Housing Carl's Place Housing Transitional Living Commitment	www.homefrontnj.org

Agency	Services	Web Address
	Kinship Families Housing Special Intensive Case Mgmt. Permanent Service-Enriched Affordable Housing Furnish the Future Pro-bono Professional Services Driving to Independence Workforce Investment Projects	
Homeless Hotline	Homeless Hotline	www.crisisservices.org/homelessness
Latin American Legal Defense and Education Fund	Welcome House, Support Services for Immigrants Exercise & Wellness Programs	www.laldef.org
Lifeline Emergency Shelter	Lifeline Emergency Shelter, Housing	www.lifeline-emergency-sheter-in-trenton.nj.amfibi.directory
Lutheran Church of the Redeemer	Food Pantry	www.homelessshelterdirectory.org
Mercer Street Friends	Outpatient Drug & Alcohol Treatment Services Home Health Care Basic Skills/Literacy Services	www.mercerstreetfriends.org
Mt. Carmel Guild	Emergency Assistance: Food Pantry Emergency Assistance: Prescription Assistance	www.mcgtrenton.org
New Horizons Treatment Services Inc.	New Horizons Substance Abuse	www.nhts.net
PAAD/Senior Gold	PAAD/Senior Gold, Prescription Services	www.state.nj.us/humanservices
Phoebe's Pantry	Food Pantry	www.foodpantries.org
Planned Parenthood	Women's health, contraception, HIV testing	www.plannedparenthood.org
Princeton Deliverance Center	Princeton Deliverance Center Soup Kitchen	www.homelessshelterdirectory.org
Rescue Mission of Trenton	Vince's Place, Addiction Services Robinson Place, Housing TEACH, Supportive Services Outpatient Clinic Emergency Services, Housing Homeless Assessment & Referral (HAR) Program	www.rescuemissionoftrenton.org
Rx Assist	Rx Assist	www.rxassist.org
Sacred Heart Church	Food Pantry	www.trentonsacredheart.org
Salvation Army	Homeless Drop-In Center Adult Rehabilitation, Addiction Services Life Skills Program Vocational Services	www.salvationarmytrentonnj.org

Agency	Services	Web Address
Shiloh Community Development Corporation	Capital City One-Stop Career Center	www.shilohcdc.org
St. Francis Medical Center	Mental Health, inpatient & outpatient SSI/SSDI Enrollment Bariatrics Specialty Clinics Walk-In Medical Clinic Retail Medical Walk-In Services	www.stfrancismedical.org
St. Mary's Church	Loaves and Fishes Soup Kitchen	www.saintmaryscathedral-trenton.org
Trinity Episcopal Cathedral	TASK West Ward Satellite Soup Kitchen & Food Pantry	www.trinitycathedralnj.org
UIH Family Partners	Fatherhood Program Vocational Services	www.uihfamilypartners.org
United Progress Inc.	Food Pantry	www.njmentalhealthcares.communityos.org
United Progress Inc.	Trenton Treatment Center, Housing	www.homelessshelterdirectory.org
United Way of Greater Mercer County	Family Wiza Prescription Discount Card	www.uwgmc.org
Volunteers of America Delaware Valley	Amani House	www.voadv.org
Woman Space	Woman Space Shelter	www.womanspace.org
YWCA	Dunham Hall Housing	www.ywcatrenton.org

APPENDIX 2
Business Community Survey Results

Business Community Survey Results
November 2015

Q1
My Information
- Answered: 12
- Skipped: 1

Q2
I am responding to the healthcare needs in:
- Answered: 12
- Skipped: 1

Answer Choices	Responses
Trenton	**33.33%** **4**
Newark	**66.67%** **8**
Total	**12**

Q3
Do you believe that employees in Newark/Trenton have access to conveniently located primary care services that are Comprehensive?
- Answered: 12
- Skipped: 1

Answer Choices	Responses
Yes	**66.67%** **8**
No	**33.33%** **4**
Total	**12**

Q4
Do you believe that employees in Newark/Trenton have access to conveniently located primary care services that are Affordable?
- Answered: 12
- Skipped: 1

Answer Choices	Responses
Yes	**50.00%** **6**
No	**50.00%** **6**
Total	**12**

Q5

Do you believe that employees in Newark/Trenton have access to conveniently located primary care services that meet the primary health care needs of employees?

- Answered: 13
- Skipped: 0

Answer Choices	Responses
Yes	**61.54%** **8**
No	**38.46%** **5**
Total	**13**

Q6

Do you agree that a healthier population is good for business and for the community as a whole?

- Answered: 12
- Skipped: 1

Answer Choices	Responses
Yes	**91.67%** **11**
No	**8.33%** **1**
Total	**12**

Q7

How important are each of the following conditions to your employees' health?

- Answered: 12
- Skipped: 1

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Total	Weighted Average
Adult Smoking	8.33% 1	8.33% 1	25.00% 3	25.00% 3	33.33% 4	12	3.67
Obesity	0.00% 0	0.00% 0	25.00% 3	33.33% 4	41.67% 5	12	4.17
Stress	0.00% 0	0.00% 0	50.00% 6	25.00% 3	25.00% 3	12	3.75
Asthma	0.00% 0	0.00% 0	50.00% 6	33.33% 4	16.67% 2	12	3.67
Depression	0.00% 0	0.00% 0	50.00% 6	33.33% 4	16.67% 2	12	3.67
Chronic Obstructive Pulmonary Disease (COPD)	9.09% 1	9.09% 1	45.45% 5	18.18% 2	18.18% 2	11	3.27
Diabetes	0.00% 0	0.00% 0	16.67% 2	33.33% 4	50.00% 6	12	4.33

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Total	Weighted Average
Congestive Heart Failure (CHF)	**0.00% 0**	**0.00% 0**	**33.33% 4**	**33.33% 4**	**33.33% 4**	**12**	**4.00**
Hypertension	**0.00% 0**	**0.00% 0**	**33.33% 4**	**50.00% 6**	**16.67% 2**	**12**	**3.83**

Q8

How important do you believe that each of the following health services is to your employees?

- Answered: 12
- Skipped: 1

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Total	Weighted Average
Same Day, Convenient Access to Care	**0.00% 0**	**8.33% 1**	**8.33% 1**	**50.00% 6**	**33.33% 4**	**12**	**4.08**
Preventive Care (immunizations, screening tests, health education, etc.)	**0.00% 0**	**0.00% 0**	**8.33% 1**	**50.00% 6**	**41.67% 5**	**12**	**4.33**
Treatment of common medical conditions (colds, sore throats, sinus infections, etc.)	**0.00% 0**	**0.00% 0**	**25.00% 3**	**50.00% 6**	**25.00% 3**	**12**	**4.00**
Treatment of chronic medical conditions (high blood pressure, diabetes, asthma, chronic obstructive pulmonary disease, congestive health failure, smoking, etc.)	**0.00% 0**	**0.00% 0**	**25.00% 3**	**25.00% 3**	**50.00% 6**	**12**	**4.25**
Prenatal Care	**0.00% 0**	**8.33% 1**	**8.33% 1**	**50.00% 6**	**33.33% 4**	**12**	**4.08**
Chronic Obstructive Pulmonary Disease (COPD)	**0.00% 0**	**8.33% 1**	**33.33% 4**	**25.00% 3**	**33.33% 4**	**12**	**3.83**
Treatment of emotional/mental health conditions	**0.00% 0**	**0.00% 0**	**25.00% 3**	**50.00% 6**	**25.00% 3**	**12**	**4.00**
Making referrals to	**0.00% 0**	**0.00% 0**	**41.67% 5**	**33.33% 4**	**25.00% 3**	**12**	**3.83**

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Total	Weighted Average
medical/psych specialists when necessary							

Q9

If your employees need primary care, where do they usually go? (check all that apply)

- Answered: 12
- Skipped: 1

Answer Choices	Responses
Company - Sponsored Clinic	**16.67%** **2**
Convenient Care Clinic (Pharmacy Walk-In Clinic)	**16.67%** **2**
Urgent Care Center	**41.67%** **5**
Community Clinic	**33.33%** **4**
Physician Office	**83.33%** **10**
Nurse Practitioner Practice	**8.33%** **1**
Hospital Emergency Room	**58.33%** **7**

Total Respondents: 12

Comment:

ER utilization is MUCH too high for our population - we need to stem the flow of use of the ER for non-emergency illness

Q10

Please rank the outcomes that you would expect from using a primary care center.

- Answered: 12
- Skipped: 1

	Not Important	Somewhat Important	Important	Very Important	Extremely Important	Total	Weighted Average
Reduced unnecessary emergency room visits	**0.00%** **0**	**0.00%** **0**	**8.33%** **1**	**41.67%** **5**	**50.00%** **6**	**12**	**4.42**
Reduces hospital readmissions	**0.00%** **0**	**0.00%** **0**	**27.27%** **3**	**27.27%** **3**	**45.45%** **5**	**11**	**4.18**
Reduced health care costs	**0.00%** **0**	**0.00%** **0**	**8.33%** **1**	**41.67%** **5**	**50.00%** **6**	**12**	**4.42**
Better managed chronic conditions and health risks	**0.00%** **0**	**0.00%** **0**	**8.33%** **1**	**33.33%** **4**	**58.33%** **7**	**12**	**4.50**
Coordinated care with other providers	**0.00%** **0**	**0.00%** **0**	**16.67%** **2**	**33.33%** **4**	**50.00%** **6**	**12**	**4.33**
Reduced employee absenteeism	**0.00%** **0**	**8.33%** **1**	**8.33%** **1**	**41.67%** **5**	**41.67%** **5**	**12**	**4.17**
Reduced presenteeism (the lack of productivity while at work)	**0.00%** **0**	**0.00%** **0**	**8.33%** **1**	**58.33%** **7**	**33.33%** **4**	**12**	**4.25**

Q11

Do you believe that there is a need for additional primary care services in Newark/Trenton?

- Answered: 11
- Skipped: 2

Answer Choices	Responses
No, there are plenty of primary care services in Newark/Trenton	**9.09%** **1**
Yes, for the inner city population	**18.18%** **2**
Yes, for the working population	**9.09%** **1**
Yes, for both the inner city and working population	**63.64%** **7**
Total	**11**

Comments:
In the community and in the workplace

Answer Choices	Responses
On Broad Street	
Downtown central location, such as near Rutgers Newark	

Q12

Would services that rotated to different locations, or were mobile, help meet the needs of multiple employers?

- Answered: 12
- Skipped: 1

Answer Choices	Responses
Yes	**58.33%** **7**
No	**41.67%** **5**
Total	**12**

Q13

Describe the level of experience you have with APN (Advanced Practice Nurse) primary care practices:

- Answered: 12
- Skipped: 1

Answer Choices	Responses
No Experience (You are not familiar with APN practice)	**41.67%** **5**
Some Experience (You know about APN practice from a friend or family member or you have read/seen a media report about APN practice)	**16.67%** **2**
Very Familiar with APN practice (You see an APN for your own primary care or you are very familiar with APN primary care practice from the media, family/friends, or other sources of information.)	**41.67%** **5**
Total	**12**

Q14

How would you describe optimal health services for your employees?

- Answered: 8
- Skipped: 5

Good insurance, low co-pays, access to care

Limited number of health care providers in Newark .

Need a comprehensive network of PCP's - accessible - in-network (Horizon) Need a second line defense of comprehensive Urgent care / early late hours for non-life threatening illness/accident Comprehensive network of specialists and Hospitals

Coordinated comprehensive primary care delivered using an Inter-professional team model with easily accessible acute care services that are available18 hours a day.

Pretty Good

Good

For employees, the ability to get seen quickly near home or office, without going to the emergency room, and in a way the complements the primary care provider.

Make me richer

Q15

If a new APN-led health center providing a full range of series opened in Newark/Trenton, would it be helpful to your company and your employees?

- Answered: 12
- Skipped: 1

Answer Choices	Responses	
No	8.33%	1
Yes	91.67%	11
Total		12

Comments:

Yes, any increase in access to healthcare in the city of Newark would help, you would hopefully see better quality of life, better understanding of disease process which would help population have better health outcome.

Yes, provided it was an in-network (Horizon BC/BS) accredited facility

It would be even more helpful if there was an Inter-professional model that includes primary care physicians, nurses, and pharmacists.

Accessibility, flexibility and wide APNs provide a wide range of preventative care assistance to the public at a lower cost.

If the service were "walk-in" or same day appointment with limited wait, it would provide an option other than taking the entire day off if a quick assessment is needed. Also would

Answer Choices	Responses
be helpful for workers comp where we need the employee to seek treatment immediately.	

Q16

If a new APN-led health center were to open in Newark/Trenton how might you support it? (check all that apply)

- Answered: 8
- Skipped: 5

Answer Choices	Responses
Provide start-up funding	0.00% 0
Provide space for one or more facilities	0.00% 0
Provide equipment	0.00% 0
Provide funding for staff positions	0.00% 0
Provide support for a community-based foundation that would support a health center	0.00% 0
Refer employees to the Center	75.00% 6
Contract directly with the Center to provide services for employees	25.00% 2
Incentivize/subsidize employees to utilize the Center	0.00% 0
Promote the Center to customers and other businesses	62.50% 5

Total Respondents: 8
Comment:
I would need to learn more

APPENDIX 3

Stakeholder Survey: Community Leaders (TRENTON)

Health Centers in Trenton and Newark:
Building New Jersey's Primary Care Safety Net

Stakeholder Survey: Community Leaders in Trenton

Community stakeholders were a vital part of the assessment process in this Feasibility Study. They were a rich source of information about healthcare in Trenton, and often offered valuable insight into the politics of the city. While many healthcare and governmental representatives were interviewed in person, two short surveys were created via Survey Monkey to be emailed to others. A business survey was created and sent exclusively to businesses while the remaining groups noted in the grant, such as religious organizations, civic organizations, labor organizations, social service agencies, educational institutions and the media, were asked to complete a stakeholder survey. Emails and personal telephone calls were used to encourage participation. In total, Trenton had 14 people complete the survey (two anonymously). A summary of responses to the Trenton survey follows.

The stakeholder survey contained 17 questions. Several participants opted to skip questions. The questions most often skipped were the open-ended questions, such as "List Trenton's strengths in providing healthcare" or "Please name key community groups in Trenton that provide healthcare or healthcare leadership."

The majority of respondents rated the following aspects of healthcare in Trenton as "fair" or "good": overall quality of care, access to primary and preventative care, comprehensiveness of healthcare, and the affordability of care. Generally, Trenton respondents agreed that the costs of healthcare, insurance, co-pays and medicines were high. They also agreed that it is "difficult" to "practically impossible" to get an appointment for the homeless, immigrant, unemployed and uninsured while it is "fairly easy" to "very easy" for those on Medicaid or those who are racially/ethnically diverse.

The majority of Trenton respondents did not know if there are geographic areas in the city where primary care is not available. However, when asked about the use of emergency rooms in Trenton, 86% said it was either "frequent" or "very frequent."

Respondents identified the following areas of need in Trenton: (1) mental health care (85.71%), (2) care for those who are homebound. They also agreed there is a lack of adequate care for those who are elderly (50%), for the dying or those needing hospice care (42.86%), and for women who are pregnant (35%). When asked to name Trenton's strengths, they cited location, good hospitals, FQHCs, multilingual. When asked about problems in delivering/receiving healthcare, all respondents noted that all of the items were a challenge, but that safety/crime was a particular barrier to care (100%). Trenton respondents also noted a significant lack of trust in healthcare providers (64.29%); while transportation was seen as a challenge by 92.86% of respondents.

When asked to list the most important healthcare needs that are not being met, Trenton respondents listed primary and preventative care, mental health care, and transportation

to care. One respondent stated that there are not enough good pharmacies with staff that explain things.

When asked to list key community groups that provide healthcare or groups that provide healthcare leadership, there were few responses. However, Trenton respondents listed the FQHC and local hospitals. It was noted that sensitive and political issues do get in the way of providing healthcare, as does lack of funding.

Trenton respondents did not have much experience with an Advanced Practice Nurse (38.46%); however, those that did rated the care they received from "good" to "excellent." When asked if APNs face political, financial or professional barriers, the majority said "yes." Ninety percent (90%) of Trenton respondents felt that adding services from APNs would improve the city's healthcare. Respondents added that APNs could fill the gaps and offer prenatal as well as family care, help with chronic diseases and health education, and provide mental health care.

APPENDIX 4

Patient Focus Group (Trenton)

Health Centers in Trenton and Newark:
Building New Jersey's Primary Care Safety Net

TRENTON PATIENT FOCUS GROUPS (Mission)

1 & 2: Intro

3. **Demographics of the Group:**
   a. **# Women: 1 # Men: 5 Total Participants: 6**
   b. **Ages**:
   18-30: 31-40 41-50 1 51-60 4

   61-70 1 71-80 1 No Ans: 0

4. **Health Insurance**:

   a. None:
   b. Medicaid: 4
   c. Medicare: 1
   d. Other:

5. **How would you rate your general health?**

   1 poor 2 fair 2 good 0 very good 1 excellent

6. **Have you seen a HCP in the last 3 months? _6_ YES______ NO**
   If yes- where:

   a. Mission/clinic: 0
   b. FQHC: 5
   c. Emergency room: 2
   d. I was in the hospital: 2
   e. OTHER:

7. **How do you usually receive care?**

   a. Walk in: 2
   b. Appointment: 6
   c. Go to ER: 1
   d. Other:

8. **Do you need help in getting healthcare services? Does someone help you with appointments, referrals, coordinating your care? Who helps you?**

   Yes- 2 The Community Center or mission staff help me

9. Tell us about your experience getting healthcare (list the key themes):

•"You go though 5 services – to hours, lots of hours to get the Medicaid. It's hard to get appointments- you wait a month. They gave me a doctor who wasn't "in the network". Couldn't see him- no transportation. Can't visit friends in hospital- no transportation. Went to Trenton Family Practice- and I like my doc. Gave the receptionist my form for disability, but she never got it done."

•I go to the clinic (Henry Austin) but had to wait a month for an appointment. Just need my BP med- sick but you have to wait. I walked to the clinic- they did a good job."

•I go to Henry Austin about once a month for my pain medicine, but they are not giving me what I need- I'm still struggling with pain. I call for transportation, and that works well. Get there and sit for 2 hours for a 5-10 minute appointment."

•It took me 8 months to get healthcare. Once I got it, it was ok. Social services took lots of time."

•It's a long process to get in – took me about a year. Appointments were ok- it's convenient to get care across the street. I had a really long wait for the dentist."

•"It's important to be close.

•"I had heart surgery in February, but before then I had a lot of tests between October and the surgery and in January I had 19 appointments. They went well, except transportation was a pain. I had to have my surgery in New Brunswick because I couldn't afford to go to my first choice in Pennsylvania. But it went well, especially because of my nurse. I had a nurse who saw me at home."

10. What is "GOOD" about healthcare in Trenton? What do you LIKE?

•It's convenient
•The care is good
•You can get transportation

11. What are the problems with getting healthcare in Trenton? What doesn't work?

•The really long wait times
•You need a co-pay to be seen at Henry Austin
*Social services located at County

12. Specifically ask if each of these is a problem: (These questions were not asked)

a. Transportation:
b. Clinic hours (both groups):
c. Cost:
d. Language:
e. Other: <u>SAFETY:</u>

13. What services can't you get?

a. Dental Care- it's really overbooked
b. Mental Health- Just look at the people wandering on the streets-there isn't much concern
c. Primary Care:
d. Emergency Care: you can get it, but long wait times
e. Same-day care
f. Social services (help with housing, food, referrals, jobs, etc).
g. Other:

14. How would you make healthcare here better? Easier to use? (more available)

•"A mobile van would help"
•"People here in Trenton are lost in the system"
•"The ones who can make a difference should care. The people in healthcare don't care. They don't have love."

Nurses are the biggest healthcare workforce. Nurse practitioners have advanced training in health histories, physical exam and diagnosis and treatment. They can order tests and prescribe medicines.

15. Have you ever seen a Nurse Practitioner for your care?

All respondents said "yes"

16. What did you think about the care you got from the Nurse Practitioner?

•"I loved my nurse practitioner. She really cared about me."
•"My nurse practitioner went the extra mile for me- tried to help me with other services and helped me get the appointments I needed."
•"The nurse practitioner I saw seemed to fill in the gaps from the doctor visits. She treated me with respect."

17. Would NP-provided care in Trenton make healthcare better here?

All – "yes"

in what way?

• "The nurse practitioner is more available"
•"The nurse practitioner knows who I am; I am a real person to her."
•"I feel comfortable talking with a nurse practitioner and the nurse practitioner takes time with me"
•"The nurse practitioner treats people with love."

If they wouldn't make it better, why not?

N/A

APPENDIX 5

Needs Assessment: APNs in New Jersey

NEEDS ASSESSMENT: APNs IN NEW JERSEY

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I. BACKGROUND

The New Jersey Collaborating Center for Nursing (NJCCN) agreed to work with the Nurse Practitioner Healthcare Foundation (NPHF) and the New Jersey Health Care Quality Institute (NJHCQI) to develop a new and more comprehensive primary care infrastructure for New Jersey (NJ) that is based on a nursing model. To that end the NJCCN was charged with: 1) developing, disseminating and analyzing a state-wide needs assessment survey of Advanced Practice Nurses (APNs) focused on the business and practice management knowledge and skills and 2) conducting focus groups to better understand the workforce capacity in initiating and sustaining a nurse-led health center, specifically in the underserved areas of Newark and Trenton.

Assuming that scope of practice issues were resolved in NJ for APNs it is important to understand if APNs are adequately prepared for independent practice as it relates to owning and operating nurse-led health centers. This is important when considering the challenges APNs would face in underserved areas such as Newark and Trenton. Therefore, for the purpose of this first report it will be centered on the educational needs assessment around business and practice management skills.

II. METHODOLOGY

A. Survey Design

A needs assessment survey was developed by The New Jersey Collaborating Center for Nursing, Nurse Practitioner Healthcare Foundation (NPHF), and the New Jersey Health Care Quality Institute (NJHCQI) with input from the Forum of Nurses in Advanced Practice-NJ (FNAP-NJ), Society of Psychiatric Advanced Practice Nurse (SPAPN) of the New Jersey State Nurses Association (NJSNA), and APN-NJ. Additionally, an email list of active APNs were obtained from the New Jersey Board of Nursing (NJBON). The survey was disseminated by these groups as well as through the e-mail list provided by the NJBON. The survey was placed on the NJCCN website. NJCCN administered the survey through SurveyMonkey.com™ for ease of access for the participants. The email to the APNs included a description of the project, description of the needs assessment on entrepreneurship, practice management, and business skills of APNs in New Jersey.
The survey consisted of 24 questions with a section for comments by the participants and 9 demographic questions. Various design formats for responding to questions were incorporated including multiple choices, yes or no, and fill in the blank. Respondents were asked to rate their comfort level in activities/skills needed for APN nurse-led practices on a Likert scale of 1-5, in which 1=novice, 2=advanced beginner, 3=competent, 4=proficient, and 5=expert. One reminder email requesting participation in the survey was sent 2 weeks after the original emailing to ensure an adequate sample size.

B. Sample

The sample of APNs were solicited through the NJSNA sub-groups of APNs and through emails provided by the NJ Board of Nursing between June 4, 2015-July 10, 2015. According to the NJ Board of Nursing records there are 7,166 nurses licensed as APNs. In this survey there were 372 respondents who completed the survey. By taking the survey consent was implied.

III. SYNTHESIS OF RESULTS

The electronic results (n=372) were aggregated through Survey Monkey™. Descriptive statistics were used to analyze the data.

A. Demographics of Respondents

Over 67% (n=204) of the respondents were age 46 or greater, educated primarily at a Masters level, with the majority (56%, n=200) having 8 years or greater in practice as an APN. The majority of respondent were credentialed as either family or adult APNs. The majority were working 40 hours or greater in their practice settings. Demographic data can be found in Table 1 below.

Table 1. Demographics of Respondents

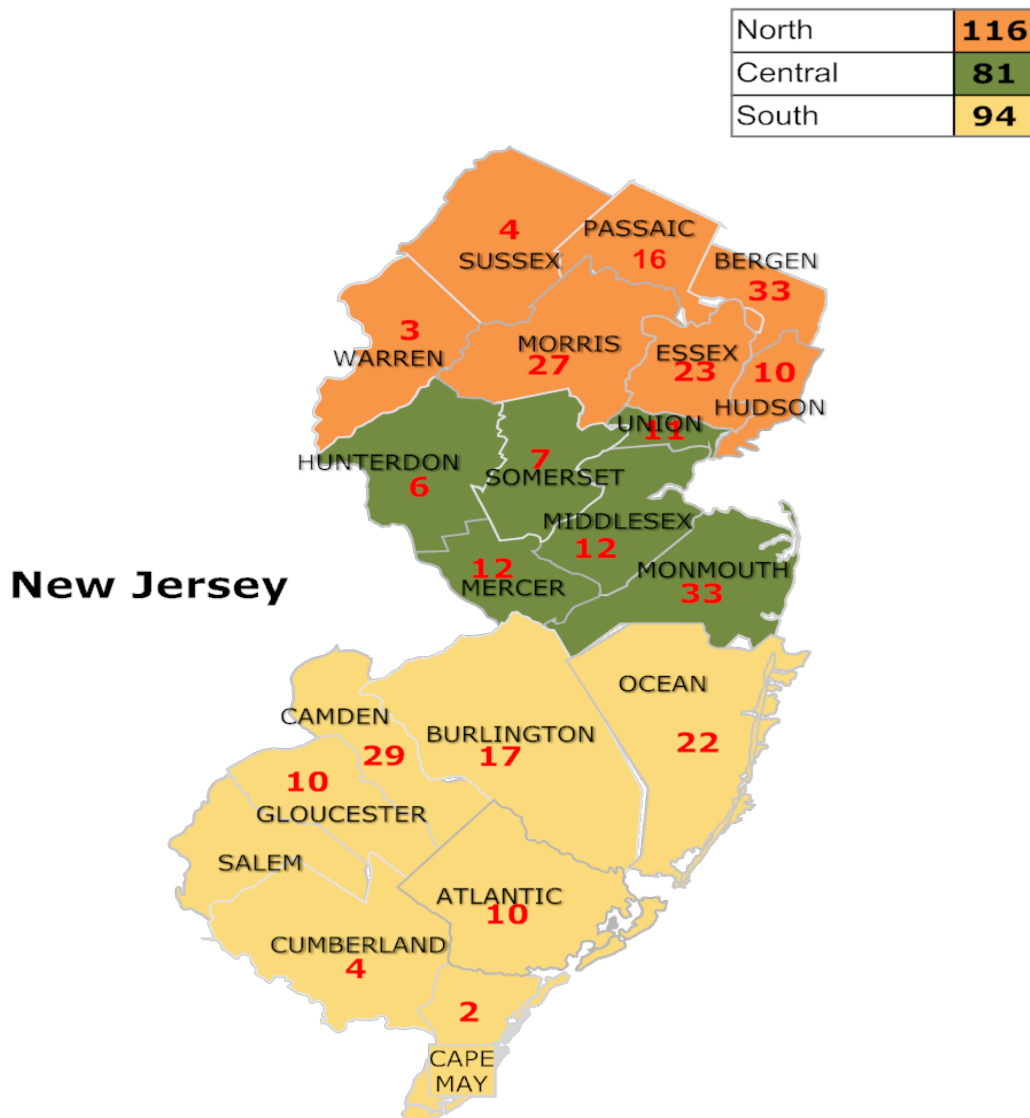
Characteristics	**n**	**%**	**Characteristics continued**	**n**	**%**
Age			**Years Licensed as APN**		
25-35	35	11.4	*1970-1980*	8	2.3
36-45	68	22.1	*1981-1990*	23	6.6
46-55	81	26.4	*1991-2000*	96	27.6
56-65	98	32	*2001-2010*	117	33.6
66 or greater	25	8.1	*2011 to 2015*	104	29.9
Highest Educational Level			**Years in Practice as an APN**		
MSN, MN, MS	260	72.2	*0-1*	46	12.8
DNP	56	15.6	*2-4*	71	19.8
PhD	17	4.7	*5-7*	41	11.5
Other	27	7.5	*8-10*	40	11.2
			11 or greater	160	44.7
Certifications			**Number of Scheduled Work Hours**		
CNM	5	1.4	*0-10*	32	9.2
CRNA	16	4.5	*11-20*	32	9.2
Acute Care Adult NP	36	10.1	*21-30*	31	8.9
Acute Care Pediatrics NP	3	0.8	*31-40*	196	56.2
Adult Gero Primary Care NP	75	21.0	*41 or greater*	58	16.6
Psych/Mental Health NP	41	11.5			
Pediatric NP	27	7.6			
Family NP	88	24.6			

Women's Health NP	10	2.8			
Dual-NP	4	1.1			
CNS	24	6.7			
Other	28	7.8			

B. <u>Primary Work Sites by Zip Code</u>

APNs were asked to identify the primary zip code of where they worked. Those that provided the response were aggregated by county. Respondents were place in the map below to provide a geographic depiction of where they were located. See Figure 1. below.

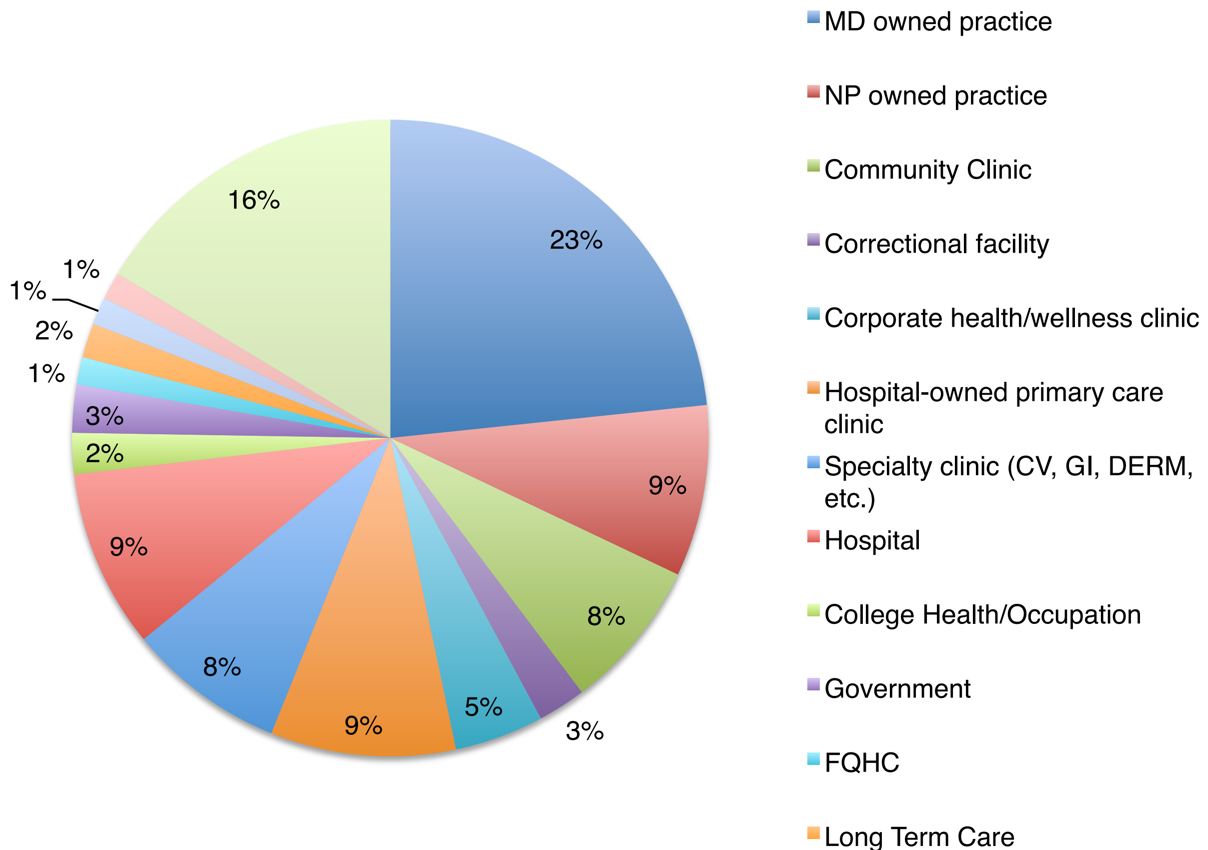
Primary Work by Zip Code



Type of Practice Sites for APNs

The type of practice settings where APNs work are broken down in Figure 2 below. As demonstrated in Figure 2, only 9% of the APNs self-identified that they own their own practice, while the majority identified that they currently work in an MD owned practice or other types of facilities. However, when asked in question 16 if they owned their own practice 13% (n=48) out of 366 respondents answered yes. We cannot account for this discrepancy in responses.

Figure 2. Type of Practice Site for APNs

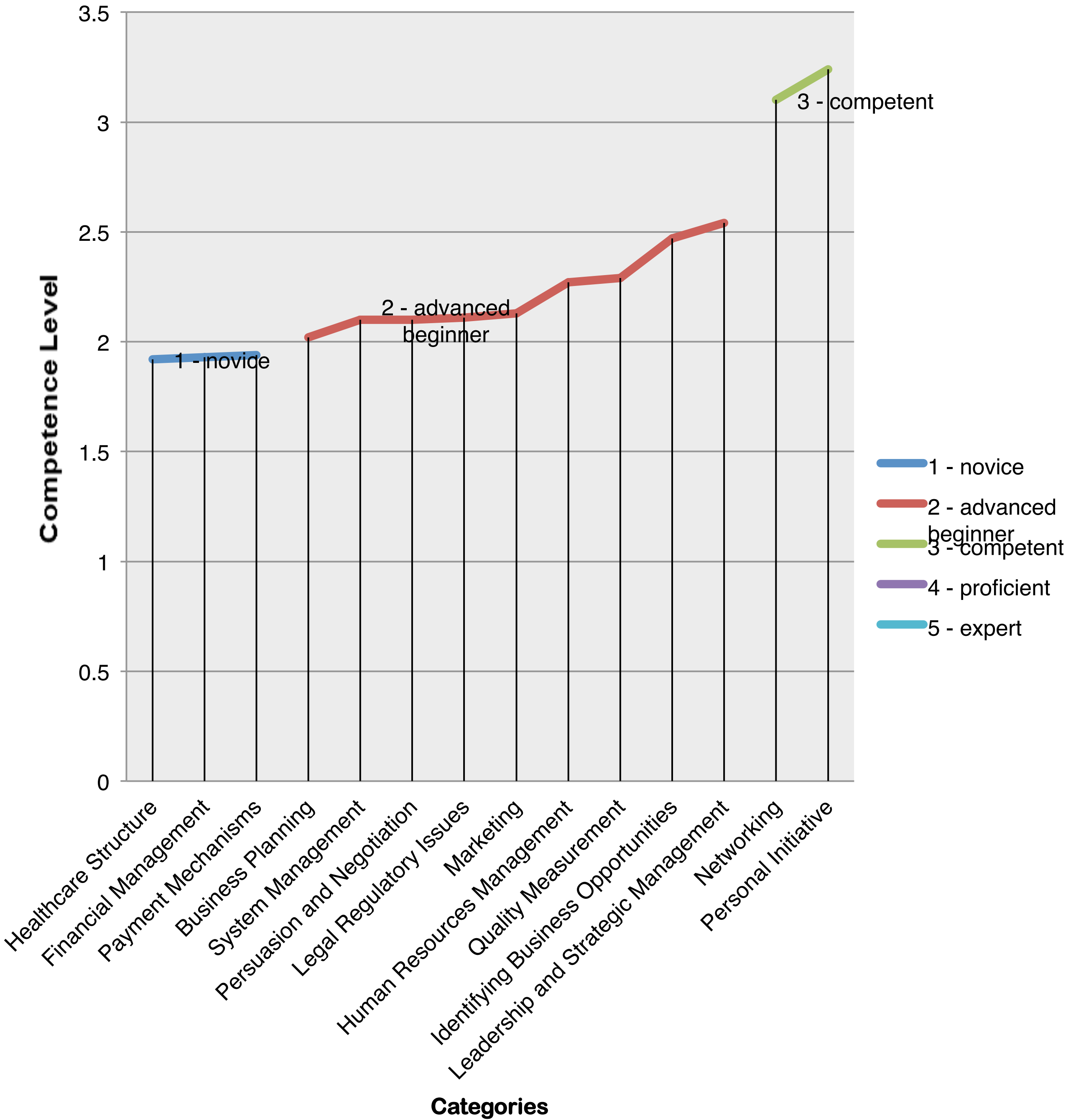


C. Educational Needs Assessment

All 14 categories in the needs assessment had a weighted average to help identify where the APNs were in each of the specific items. Twelve of the 14 categories showed that the APN were at a novice or an advanced beginner level. The other two categories were at a competent level. Of those that responded to the survey the majority had greater than 8 years as an APN in practice where one might theoretically believe that they would be more advanced. This may be congruent with the fact that 86.9% who responded to the survey did not own or operate their own practice and therefore did not have the business and practice management skills that were needed for the future healthcare demands.

Each category within the survey that focused on business and practice management skills was averaged to determine the least to greatest need by the APN respondents.
Table 2 below shows that distribution by category.

Table 2. APNs Least to Most Knowledge by Competency Level



In Table 3 each of the content categories were analyzed to look at the overall weighted average and the range within that category. Select comments were identified to illustrate the perceptions of APNs within that category.

Table 3. Category, Weighted Average, Range within the Category and Illustrative Comments by APNs

Content Category	Weighted Average	Range within Category	Illustrative Comments
Identifying Business Opportunities	2.47	2.26-2.83	
Marketing	2.13	1.95-2.45	"I do not know what an external environmental scan is." Nurses are not typically socialized to pay attention to marketing…unless they have had business courses or experience in the business world…with healthcare being a tremendous business in the Western World…nurses must become more proficient in this area."
Leadership & Strategic Management	2.53	2.43-2.77	"Many healthcare systems do not allow nursing to "fully" engage in strategic management despite their leadership roles."
Financial Management	1.93	1.75-2.15	"Negotiating business loans is not dependent on the skills or knowledge of the APN. It is completely dependent on the financial institutions giving the loans. They will not give out any loans that are not secured with capital." "Eighteen years ago I was trained as a physician extender. I was never encouraged to own my own practice even though I knew where the needs were." "We own our own APN PCP practice and were lucky enough to have the capital between the two of us."
Persuasion and Negotiation	2.10	1.95-2.22	"Negotiating contracts with payers is becoming increasingly more difficult, because most have pre-existing prejudices against APNs. It is extremely limiting for APNs not being in insurance plans. This impacts their ability to function autonomously." "I have had many years of experience in high level business negotiations in international business but negotiating with payers is an absolute nightmare and proficiency is seemingly impossible."
Networking	3.10	2.80-3.24	"Though one can be diligent and know how

Content Category	Weighted Average	Range within Category	Illustrative Comments
			to navigate networking… will APNs be allowed to "make connections? Others may stereotype the definition of nurse and not want to include our profession."
Personal Initiative	3.24	2.89-3.42	"This requires experience and maturity.
Business Planning	2.02	2.02	"I have successfully started and run two APN organizations. One practice for 13 years which grew to 1000+ employees. My current solo practice I have run for over 4 years." "Identifying moral, ethical and legal consequences of business opportunities are important."
Legal & Regulatory	2.11	1.78-2.54	"One would need at least an MBA to be proficient in health and regulatory policy… or have consulting and accounting services. In other words it is not enough to look up the current regulations and guidelines. It is wise and effective to obtain experts in the field to assist in areas where you have no practice experience."
Payment Mechanisms	1.94	1.83-2.16	"Billing and coding is a very important part of APN practice and should be taught in programs."
Systems Management	2.10	1.81-2.64	"I work with my EHR/billing team on these matters."
Human Resource Management	2.27	1.90-2.54	"Credentialing is the biggest nightmare and the biggest loss of revenue due to poor information, little support, no structured leadership or contact structure within the insurance credentialing framework."
Quality Measurement	2.3	1.83-2.68	"I do not know what HEDIS or clinical metric management is."
Healthcare Structure	1.93	1.79-2.20	"I do not know what a FQHC or an accountable care organization is." *Note: In this question we did not ask about APN owned practices and was a limitation of the question.*

D. Practice Patterns (Current and Future)
The majority of APNs (86.9%, n=318) do not own their own practice at this time. Forty-six percent, (n=144) of the respondents identified that they do not have the business skills and 43.9% (n=137) of the 312 respondent identified they do not have the practice management skills necessary to own and operate a nurse-led practice. However, if there were a healthcare business program offered, along with practice management resources, and a state-wide Nurse Practitioner support network to help finance, set up, and run a practice this would be attractive to APNs. In fact, 67.3 % (n=241) of the 358 respondents stated they would be interested in owning and operating their own NP practice with these resources made available.

E Learning Preferences
The respondents were asked several questions to determine how to best deliver a business and practice management program and what they would identify as a reasonable fee. The majority of APNs (89.6%, n=317) identified that they wanted the program offered in NJ preferably in central NJ. Sixty two percent (n=221) wanted a hybrid format, (both face to face and on-line) (n=221) with 173 of the 221 also wanting a coach provided. The cost point identified by the majority 63.6% (n=224) was in a range of 1000 -3000 dollars.

IV. RECOMMENDATIONS

It was clear from the survey results that educational programs did not prepare the APNs in business and practice management skills to lead their own practice. The results showed that the respondents were at the novice or advanced beginner level and did not feel confident in 12 of the 14 categories identified in the survey around business and practice management skills. (Refer back to Table 2 and 3 for specific results). Therefore, a comprehensive business and practice management program is needed for current APNs. It also provides the bases for informing academic programs to add these topics to their curricula for future APNs. Dissemination of the results to schools of nursing should be considered.

The cost of a program in business and practice management skills was important to the majority of APNs (72.2%, n=262). Sixty-four percent (n=224) of the APNs were willing to pay a fee of $1000-$3000. The format of the program that they preferred was a hybrid of weekend classes, on-line modules, (61.7%, n=221) with some (48.3%, n=173) preferring a coach. Therefore, in developing a program location, cost point, and format should be considered in the design.

V. DISCUSSION

In addition to the above recommendations several other points should be considered. In trying to identify APNs and their contact information it became evident that there is not a clean source of data. This makes it difficult not only in identifying contact information but in identifying the specialties of APNs. This is an area that needs to be improved upon and an area that the Board of Nursing in NJ and the NJCCN could work on together.
In the survey, several APNs identified that they owned their own practices and some identified they were successful. Therefore, it would seem that establishing a list of APNs that have been successful and would be willing to mentor new APNs in their practice would be useful.

Finally, many of the APNs need assistance with setting up a practice. Therefore it would be valuable to create a toolkit and/or resource list that was accessible for APNs to use. It is important that this list of resources also be vetted by someone who has experience in these areas.

VI. SUMMARY

It is encouraging that with proper education and resource access 67.3% of the APNs would be interested in owning and operating a nurse-led practice. The results of this needs assessment for APNs demonstrate gaps in knowledge as it relates to business and practice management skills. These gaps can be easily remedied with a comprehensive educational program and resources. The survey questions and the full results are included in Appendix A and B, respectively. In addition, the focus group report will continue to add more contexts around this project and deliverables.

VII. FUNDING

Funding for this survey was provided by the Nurse Practitioner Healthcare Foundation and the New Jersey Health Care Quality Institute through a grant from The Nicholson Foundation.

VIII. APPENDICIES

a. Survey Tool

b. Full Results Without Comments

APPENDIX 6

APN Focus Group Report

APN Focus Group Report

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I. BACKGROUND

The New Jersey Collaborating Center for Nursing (NJCCN) agreed to work with the Nurse Practitioner Healthcare Foundation (NPHF) and the New Jersey Health Care Quality Institute (NJHCQI) to develop a new and more comprehensive primary care infrastructure for New Jersey that is based on a nursing model. To that end, the NJCCN was charged with 1) developing, disseminating, and analyzing a state-wide needs assessment survey of Advanced Practice Nurses (APNs) focused on business and practice management knowledge and skills, and 2) conducting focus groups to better understand the workforce capacity to initiate and sustain a nurse-led center, specifically as it relates to the underserved areas of Newark and Trenton. The 3 focus groups data provide context to the initial quantitative report.

II. METHODOLOGY

A. Focus Group Design

Focus group questions were designed by the NJCCN and then sent for input to the NPHF and NJHCQI leaders of the project for feedback. A final set of 15 questions were developed for use in the focus groups. Questions were targeted at understanding the APNs: 1) vision of what a nurse-led primary care practice would look like, 2) reflections on how a nurse-led practice would look different in the inner city, 3) business and practice management skills needed, 4) the need for a nurse residency model.

Invitations to participate in the focus groups were sent out through the Forum of Nurses in Advanced Practice-NJ, the Society of Psychiatric Advanced Practice Nurses of the New Jersey State Nurses Association, and the APN-NJ as well as key hospitals that had a large number of APNs working in their facilities. Three sites were selected for the focus groups which included: NJCCN in Newark, NJ; Atlanticare in Atlantic City, NJ; and at a conference sponsored by NJSNA in Trenton, NJ for APNs. Due to the time constraints of participants the focus groups were held for approximately 1 hour at each site. Demographic data were obtained from each of the participants. No follow-up focus groups or additional questions were able to be raised which is a limiting factor. The focus group sessions were recorded with verbal consent from the participants. The participants were instructed at the beginning of the focus group not to use their name or organization. Upon completion of the focus groups they were transcribed by a 3rd party. All names were redacted from the focus group transcripts to ensure confidentiality.

B. Sample Size

A total of 19 APNs participated in the focus groups. Distribution of the APN participants by region included 10 central, 7 northern, and 2 from the southern locations in the state. The focus groups occurred on June 18th, June 22nd and June 23rd, 2015.

III. DATA ANALYSIS

The Executive Director and the Associate Director of the NJCCN read the transcripts independently to identify themes and consistent trends in the data. After working independently the team came together to share findings, develop and refine themes, and to provide examples from the participants.

It is important to note that not all questions originally designed could be utilized in each of the focus groups because of the limited time constraint and length of discussion around particular questions.

A. Demographics of APNs in Focus Groups

CERTIFICATIONS	**N=19**	**%**	**LOCATION OF SITE IN NJ**	**N=17**	**%**
CNM			Urban	9	53
CRNA	1	5.3	Suburban	5	29
Acute Care Adult NP	2	10.5	Rural	3	18
Acute Care Pediatrics NP					
Adult Geri Primary Care NP	5	26.3	**HIGHEST EDUCATIONAL LEVEL**	**N=17**	**%**
Psychiatric/Mental Health NP	4	21	MSN, MN, MS	8	47
Pediatric NP			DNP	5	29
Family NP	4	21	PhD	4	24
Women's Health NP			Other		
CNS	1	5.3			
Other	2	10.5			
PRACTICE FOCUS			**YEARS IN PRACTICE AS AN APN**	**N=17**	**%**
Primary Care Practice	9	47.3	0-5	5	29
Acute Care Hospital In-Patient	2	10.5	6-10	1	5.8
Acute Care- ER			11-15	2	12
Long Term Care, Assisted Living, Sub-Acute			16-20	3	18
Home Care	1	5.3	21 or greater	6	35.2
Palliative Care/Hospice	1	5.3			
FQHC					
Community Clinic	1	5.3	**NUMBER OF SCHEDULED WORK HOURS**	**N=15**	**%**
Private Practice with Physician	0	0.0	0-10	3	20
Private Practice (NP)	3	15.8	11-20	1	6.7
Specialty Clinic (Neuro, CV, Diabetes, etc.)	0	0.0	21-30	1	6.7
Other	2	10.5	31-40	6	40
			41 or greater	4	26.6
DO YOU TEACH IN NP PROGRAM	**N=17**	**%**	**ARE YOU ENGAGED IN POLICY/LEGISLATIVE CHANGE**	**N=17**	**%**
Yes	13	76.5	Yes	5	29.4
No	4	23.5	No	12	70.6
If yes, full or part –time			**If yes, describe**		

Full-time	1		Gave Description	8	
or Part-time	2				
DO YOU ENGAGE IN RESEARCH RELATED TO ADVANCING PRACTICE					
Yes	10	58.8			
No	7	41.2			
If yes, describe					
Gave Description	5				

The majority of participants in the focus groups were certified, and worked in primary care full-time in an urban setting. In response to the question regarding engagement in research and policy, 5 participants reported being engaged in research, with several of them in school to complete their DNP. Of the 8 who responded to the question on policy engagement, all of them responded that they were engaged in NJSNA through one of the forums.

B. Focus Group Trends

The data for the focus groups were organized by question. After reading the responses themes emerged. Under each theme are examples in the respondent's words to help provide context as validation of the needs assessment survey results**.** To make their comments easily readable for this report some editing has been done.

1) What attracted you to become an APN?

Theme: To be the best nurse you can be.

Quotes:

" This is *another step in climbing the ladder, to get however far I could go with my education and practice."*

"I really just always wanted to be the best I could be, and serve the patients with the highest level of education and knowledge."

"*Nursing was always an interest of mine. I wanted to go beyond what the basic scope was to refine my skills, education, and refine my practice and expand it to the maximum."*

2) Think about your practice as an APN what are the things you do that you believe add the most value to the care of the patient and improve healthcare outcomes?

Theme: A Holistic approach makes us different.

Quotes:

"*We really consider all of the aspects of the patient rather than simply the medical model. "*

"Nurses are very much patient advocates and educators."

"I think what APNs bring is a patient-centered approach…we try to empower our patients that is not the medical model."

3) If you were able to recraft your APN role for the future needs in promoting health and improving healthcare:

a. What additional skills do you believe you need that you currently do not have

Theme: There is a schism between practicing as a clinician and trying to reconcile with the business component.

Overview of the skills identified throughout all 3 focus groups

Skills Needed
Setting up a business
Technology-pharmacy and EMR
Marketing
Negotiating Contracts- insurance reimbursement
Credentialing practices
Quality improvement
Change management
Billing
Venture capital for financing
Knowing the population and demographics
Dealing with competition
Public speaking
Negotiating salary
Political savvy
Legal savvy-i.e restrictive covenants

Quotes:

"T*he business part of it is mysterious to APNs."*

" …setting up a business, writing a business plan, creating a budget, understanding how to set salaries, and how to negotiate salaries."

(Speaking about current APN curriculum), "There is about a half hour lecture during the whole program about contracts, credentialing, and insurance reimbursements. There are nuances and they are very complex, and I don't think people realize until they're actually embedded in that and realize the there's a lot more to go into it."

"The biggest words nurses fear are competition and business."

"I have not succeeded in coming by someone who has a specific knowledge within the healthcare field about how to set up a practice through the Small Business Administration."

"Too often, you are going into these 10-15 minute med checks without saying, "No I cannot diagnose somebody and develop some sort of reasonable treatment plan and do some real patient-centered care where the patient is actually participating in his care in 10-15 minutes."

"You are on a time clock. You have to see so many patients per minute, literally."

"We are watering down our services in many, many, ways. That happens in clinics. It is happening more and more."

"I think that one of the places where our physician colleagues really out do us is in the political arena, so they get a chance to influence policy in ways we do not. What we do not have in money we have in numbers. But we have not organized. It is important that we learn to think like that and become more politically savvy and figure out what we do with our money."

"What I have garnered from some conversations with other NPs is that when they go into practice with some of the physicians there are clauses written in their contracts that say that if you leave our practice you may not establish a practice within X amount of miles."

b. What skills could you bring that would add value.

Theme: APNs bring a unique skill set that adds value.

Quotes:

"We are great organizers and great educators. We focus on social justices and we are not so profit driven yet."

"I think we are better collaborators because we are used to that."

"We're used to team care and bringing it all together and seeking out the resources in the community to help our patients."

"They (MDs) don't look at the whole picture, so I think that we teach and that we look at patients in an entirely different way."

4) If there were no legal constraints on your practice, what would an ideal nurse-led primary care practice look like to you?

Theme: It would look like a healthcare team that looks at all aspects of the patient.

"I think it would look like a lot of primary care practices look now. It would not look any different except you would have APNs instead of D.O.s or family physicians or internal medicine physicians. Why would it be any different except that it would have the different philosophical [underpinnings]."

" I do not see conceptually that it would be that different except that it would take on all of our values and our perspective on patient-centered care with the patient being involved in decision making, treatment planning."

a. If this primary care practice was located in the inner city, would it look different? How?

Theme: The inner city population requires different resources.

"I think I would have to see more patients {volume}. I think it would look different. I would consider an inner city demographic when setting up a practice because of course nobody wants their insurance. I will take cash payments and nobody wants the poor people's insurance or the Medicaid."

"It would be a very different model than say Princeton or somewhere else. We would have to consider transportation for people. People do not own their own cars or have ways to get places."

"You have to have a certain time when you have open hours, and they {patients} just come in without appointments. Appointments are tough to keep for those who do not have cars, do not have child care, and do not have everyday schedules."

In reference to the business model: "They are subsidized."

"Even though everybody says there are a lot of services, there are a lot service referral services rather than actual service providers of care."

'Get everybody's needs met in a one stop kind of a place that includes physical health needs, as well as mental health needs, substance abuse treatment, referrals, and workgroups. All of those services in one place would be absolutely fantastic.'

*"That ethical piece of why are we screening for depression if you do not have anywhere to send people? {*Finding resources to care for patients with mental illness is difficult}.

b. So if you had a magic wand and could set up this ideal practice what 3 things would you see as barriers that you would need to overcome? (Personal, professional, financial, etc.)

Theme: Money speaks.

"You have to have seed money to set it up. So I would have to find somebody to help me invest in setting the practice up. I would not be able to do that on my own."
"My collaborating physician is encouraging me to set up my own private practice and he has offered to be my collaborator without charging me anything. I am afraid of setting up my own practice. First, because I do not know if anything is going to happen to him. Secondly, I cannot figure out if it is going to make sense financially."
"There are two or three large medical multi-specialty groups that are just taking over everything. So part of my question is if we would be able to survive as single providers much like our physician colleagues, or would we have to have some kind of an agreement with the larger medical groups."
"Hospital acceptance of us is another big issue. If you are seeing patients on the outside and then you want to follow them when they go to the hospital, trying to get credentialed in a hospital is not always the easiest thing, depending on how comfortable they are with APNs, and what they allow. Most hospitals will not allow you to admitand then, how can you follow your patients in the hospital."
"I think the other issue is this whole ACO issue, these bundled payment issues. I work with a lot of both physicians and groups like the nursing homes which are in these bundled programs where they get money back if the patient saves in the bundle. Well, I am seeing these patients there for palliative care and pain management, keeping days low but I am not part of that bundle and I do not get anything back. And I do not even think I could be part of that bundle because I am not an admitting attending. I am not a primary."

5) **Only about 3-5% of all APNs ever start their own practices. What do you see as the reasons for this low number?**

Theme: There is no financial infrastructure to support APN practices.

"{The reason for the low APN numbers} …is 80% reimbursement. My costs are not 20% cheaper than a physician who opens a practice. I don't pay my employees, 20% less. I actually pay them better than most of the doctors' offices around. None of my expenses are 20% less, but I have to accept 20% less and sometimes even less."
"I don't think new graduates should go into private practice right away."
"I am still trying to find financing. I am still tapping into pensions and tapping into equity into the house because there is no financing. Angel investors are non- existent. I always went to the AANP, ANCC websites, and the different organization websites thinking surely there must be some funding help or loan help or small business association help for nurse practitioners trying to start and it's not there."

6) **If a program was developed that:**
   - **Provided education about the business aspects of initiating and managing a practice;**
   - **Included a support service that provided start up and did a lot of the practice management;**
   - **Aggregated practices so that independent practices could come together to get discounts for equipment, supplies, etc. and**
   - **Networked the practices so that favorable contracts could be negotiated to sustain the practices …**

   Would you want to participate in such a program? Why or why not?

Theme: Some APNs groups have figured this out.
Quotes:

"We [nurse anesthetists] have a very different approach in the way that our national association {AANA} views its roles and responsibilities to our state. I can go to my national association and tap them for $300,000 to make it happen. They see the value in it. They have attorneys at discount and lobbyists at discount and have business consultants. The AANA has a team of people that will say, "I heard you are all starting your own practice in NJ. ...Here are all of the resources."

"If there were an infrastructure system in place that would assist us, definitely."

a. **Would you take the risk? And what would risk look like to you?**

Theme: Informed risk taking is key.

Quotes:

"I think APNs would take the risk. It is not really a risk. It is a way of elevating your profession to that next rung on that ladder. That is how I see it."

"If you don't take risk you will never move from A to B. The main thing {risk} would be leaving the company I work for when I have a salary, and good benefits. I would really have to think twice to understand what I was stepping into."

"We're not as a group entrepreneurial because of the nature of what nursing has always been."

"I agree that having the security of an income, benefits, and support structure is important. There is a fear of going out on your own, and doing something wrong, becoming engaged in something that I really did not know what the laws are, or messing something up is a concern. I think that is a fear that has been embedded in nurses and nurse practitioners."

7) **If you were designing a residency program for NPs who were going to start their own practice what content/skill would you make sure to include?**

Theme: A residency program equates with credibility and safety.

"I think the biggest argument we have, the biggest hill we have to climb, is that {physicians tell patients } we are as not educated and not as clinically trained as physicians. Patients come in and say, "Oh my doctor told me to stop coming—my cardiologist told me to stop coming to you because he has two years of residency and you have none." "We do the exact same work and as a woman fighting for equal pay, I think nurse practitioners should be fighting for the same thing because it is the exact same dynamic."

"I absolutely believe there needs to be a residency program because the residency used to be that you had to be a practicing nurse for two years before you could engage in an MSN program. So, if they're going to cut off that requirement in the front end then they need to add it to the tail end and say: 'You must practice for two years under a residency, under tutelage.' To just set the nurse free after school is completed, that is a recipe for disaster."

"I do not think we should have a residency program unless we pay them. I think if you are going to be a resident, then you should be a resident like a medical resident and get paid."

"I was a national health service corps scholar. My obligation was after I finished my program I went to work. The obligation was not to get a residency or a DNP. You have obligations. I would have liked to have had a residency."

"… I would have a business aspect component, but I think the majority of it is practicing as an APN in a realistic practice setting and being accountable, but having the safety net of have a person who is experienced working with you who has already gone through that."

"When you get out there they expect you to be able to operate. I believe when physician residents come out they do not yet know how to practice. Everybody who has been a floor nurse knows that it is a nurse's nightmare, although they {residents} have the information and they have done their rotations, it takes them 4 years after they get out of med school to learn how to practice. Whereas we throw NPs out into the trenches the day they graduate and pass that test. I just do not think it is enough."

8) **If the practice was located poverty stricken inner city and you were going to work with a very high risk population who had not had access to care for many years how would you change your residency program what additional or different skills might be needed there compared to a middle class insured population in suburbia.**

Theme: Inner city residency programs require greater innovation and creativity.

"That's the trenches {inner city}, and yet those are the people who need us the most. In nursing school, in APN school you just write an order and send the patient to a cardiologist. In real life you are trying to find someone to take the patient. Nobody wants a Medicaid patient or a Horizon patient. You are sometimes spending an hour trying to get them social services or housing or whatever they need. You soon find out that's the stuff patient's really need."

"There is a government program where if you are willing to work in an underprivileged area you can get loans and reimbursements. We {APNs} are the perfect organization and the perfect profession to say to the government: 'We are willing to send our recruits out to your local cities and your local underprivileged areas to work for a year in a residency program provided you give them a little bit of income.' A little bit of benefit as far as the loan relief or complete loan relief would be the ideal situation."

Other issues raised:

Nurse practitioners need to be more involved in policy.

"If we want to join those other 22 states who do not have collaborating agreements, we have to work together and we have to know what needs to be done."

Collaborating agreements

"It took me months to find a new collaborator because my old collaborator turned around and said: "I want $500,000 for you to stay in practice." And so I had to pack up shop, and I had a month to find a new collaborator and move and then it really did come back to the 11th hour to find someone to do it.

Clarification of Regulations in NJ

" In order to have a private practice in state of NJ , if you are not a physician and you do not heal solely by prayer, then you have to be state licensed as a facility as an ambulatory care facility in the state of NJ.

CLIA waiver identified as a barrier in NJ.

IV. RECOMMENDATIONS:

APNs perceive that they are unique in that they practice using a holistic approach and are strong collaborators due to their nursing education. The focus groups provided valuable insight and validated the business skill and practice management education that is needed. However, key

issues were identified in the focus groups that went beyond the educational needs of the APNs. They are as follows:

- DNP programs need to recognize that there is a schism between the APN practicing as a clinician and functioning as an entrepreneur. These programs need to ensure that their curriculum takes a comprehensive approach in preparing the APN to set up an independent practice.
- There is a need for a paid APN residency model. The focus groups identified a perceived gap in the new APNs ability to transition from an academic to practice setting. Many of the nurses entering into an APN role have limited experience practicing as a registered nurse. This can present an issue of credibility as well as a concern related to patient quality and safety.
- APNs need assistance in setting up successful practice models that are sustainable.
- APNs need to market their holistic approach to patient care and need to emphasize their unique skill set that sets them apart from the traditional physician model. APNs that are currently considering operating their own practice are following the outdated medical approach of solo practice. APNs need to consider models of group practice with varied APN specialties to meet the current and future healthcare needs of the population they are serving.
- Credentialing practices vary across healthcare settings inclusive of hospitals and long term care. This results in APNs not being able to follow their patients in these settings which impacts continuity of care for their patient.
- Residency programs that are in the inner city need to address the unique needs of the population it serves. Inner city patients have limited or no access to resources resulting in the inability of the APN to provide comprehensive quality care. This is due primarily to either limited or lack of healthcare insurance, competing financial obligations, or transportation. This in turn, creates issues in time spent in finding and coordinating available resources. Innovative and creative options for resources should be considered by the APN.
- National nursing professional organizations need to collaborate to develop turn-key resources and funding options for APNs to set up independent practice. This model currently exists for Nurse Anesthetists and should be explored as a potential prototype.

APPENDIX 7

Nursing Leaders Focus Group

And

Interview with United Family Medicine, A Community Clinic

Focus Group Call: Nursing Leaders in APN-Managed Health Centers
Meeting Minutes
Thursday, August 13, 2015

Attendees:

Pat Kappas Larson (leader)	**Bonnie Pilon, Vanderbuilt University**
Judy Formalarie (recorder)	**Chris Esperat, Texas**
Pat Dennehy, Consultant	**Patti Vanhook, East Tenneesee State**

Welcome and Background

Pat Kappas Larson welcomed all on the call and gave a brief background on the project and on The Nicholson Foundation. She had emailed all the participants a list of questions to review prior to the call and went over them for their input and responses.

Is the administrative burden problematic?

- It is valid that this is a burden
- Section 330 of the FQHC law requires that there must be someone in charge who reports to the oversight board with needed reports and quality metrics.
- Must look at someone with financial expertise to do quarterly reporting and Executive Director. The Executive Director reports to the Governing Board. The Board needs to consist of patients.
- Administration can be spread among several people, but you do not want NPs doing this work as they need to spend their time with patients. Volume will suffer if NPs do this work.
- You will need an office manager, as well, and will need to determine if outsourcing billing or managing internally
- Overheads will exist the same if you are a FQHC or not.
- FQHCs have a robust set of criteria but it provides good structure for the clinic. The annual reports that are due to the Feds do get easier each year and gives the clinic a lot of information which then can be used as justifications to leverage additional funding from other sources.
- Easier to deal with the Feds than with a variety of insurance payers and they provide malpractice protection that assists in covering some of the administrative costs.
- Biggest challenge was noted as the anger and frustration with third party payers. A SWOT analysis should find out:
    - If they can get paid
    - At what rate they will be paid
    - How difficult it will be to receive credentialing

Have you incorporated students into the work and if so, how?

- The responders from universities definitely see this as a very high priority as they consider themselves also an educational training facility as well as a clinic for those in need. It was the expectation as they are an academic teaching center.

How is productivity set as a standard?

- A template schedule is used that has blocks of time laid out
    - Patient visits are 15 minutes (30 minutes for new patients)

- OB has 20 minute visits (40 minutes for new patients)
- Post-partum and annual visits are also longer

- New/annual/longer visits are spread out among NPs so that no one gets too many long visits in a day
- 20-22 visits each day per NP is average
- Volume is your friend; never turn away business
- There are no-shows, and they are filled with walk-in patients
- Average over 50% uninsured
- Some NPs prefer to work longer days so that they can have days off; give them flexibility
- Open 8 to 8 and half days on Saturday 220 days a year.

How do you maintain financial sustainability?

- You must understand the payer mix: you can't survive if you have too many uninsured
    - The goal is not to have over 30% uninsured; however, if you have other funding, or can make arrangements to purchase supplies at a lower cost (through a hospital), that can help sustain you.
    - Key is what it costs you and what your payer mix is that makes the difference
- Need to keep an eye on the future requirements: for 2017, FQHC payments will be based on their quality report as wrap-around payments may not continue
- Note that it is hard to diversify when you are serving the poor.
- Consider how to obtain "donated" services

Are you doing outreach? Do you have a mobile van?

- A mobile van was cost prohibitive
- Outreach being done to the homeless, migrant workers, elders in public housing, and those in assisted living.
- Some also do home visits.

Does anyone do group visits?

- Only with pregnancy centers.

What technology are you using?

- Allscripts is used and liked by many. It has options for different plans that allow you to buy one to fit your needs/practice size/etc.
- Those from TN had used a NextGen program but were not happy with it and it will not be renewed. As they work through the State, they must go through the State purchasing process.
- Practice Fusion is free, good, and can be customized, but it can be hard to get reports.
- Important to be able to do your own reports without going to a provider.

What is the panel size per practitioner?

- Some payers have restrictions
- One stated that eight years ago, they knew it to be a limit of 1500 for NPs and 2000 for physicians but not sure what it may be now.

What kinds of activity can be delegated to others than the NPs?

- You cannot delegate too much or you cannot bill

- A Medical Assistant can do vital signs and record it; LPNs and RNs can do more such as patient history, reason for the visit, and discharge information.
- Patient education, labs, medicine refills and call backs with test results were all done by others.

What else do we need to know that we did not ask?

- It is very important to do a needs assessment
    - Is there a FQHC in your area already?
    - If so, you need to get a letter of support from them (which may be hard).
- Can you be a niche market? If so, can you afford to do just that?
- FQHC section 330 has specific requirements for the needed Board.
    - They would have the board lined up prior to submitting an application so that you have that support behind you
    - Very tricky to navigate a board
    - Majority of the board need to be patients, which can prove difficult

Reaching the end of the list of questions, Pat thanked everyone for their assistance. They all agreed that if we have additional questions, we could reach out to them with emails.

The conference call ended at 2:45PM EDT.

Interview with Melissa Parker, COO, United Family Medicine
(United Family Medicine is a Community Clinic in Saint Paul, Minnesota)

Interview Date: August 25,2015

Key Information

- All providers are salaried and must see 2.6 patient per hour
- Provider teams consist of MDs, NPs or PAs, LPN or MA, and an RN nurse leader/manager. There are residents from the near by hospital always on the team and the MD functions as a preceptors.
- Physicians also work in the hospital and follow any clinic patients admitted as well as providing after hours call coverage for the clinic.
- The hospital has not allowed NPs to be credentialed and thus they do not have hospital privileges.
- MAs are registered or certified and if not at time of employment are given six months to obtain. They receive a salary adjustment after obtaining.
- EHR is Epic the Excellian version that is leased through the local health system that includes the hospital. They were allowed to develop their own templates, which allowed them to design them in a way that captures the FQHC reporting requirements.
- They are in process of evaluating the use of scribes given need for more timely and consistent data entry by the providers.
- The MAs work under the scope of the physician, which allows for greater flexibility than using RNs or LPNs who are constrained by their scope of practice.
- They have contracted HR provided by a group out of the state and the interfaces are virtual. The RN managers have responsibility for the interface and the COO provides the administrative oversight.
- They have been able to set their Medicaid payment rate with the state and are a state designated/certified health home. This designation allows for some care management activities to be performed by state employed care coordinators. The state also provides a triage and referral line to the patients of the clinic.
- IT support for extrapolation of reports and data retrieval is contracted and there is a fulltime clinical information specialist who is responsible for the over-site and the QA program. This position also reports to the COO.
- Outreach is performed to nursing homes with physicians primarily doing those visits as well as involvement with Hospice.
- A satellite clinic exists that is manned 3 days a week in a shopping mall near the residence of clinic patients who may have more difficulty getting to the clinic. (There are plans to open a second site)
- They do group visits for OB with 10 participants in each group. They have found significant impact on birth weights since initiation of this offering. All providers are certified in a program called Centricity and follow the protocols of that program. There is global billing and often add on visit billing for problems or concerns identified during the group activity. This allows for immediacy of response.
- They offer mental health, dental, x-ray and lab services on site.
- They utilize available free interpreter services but do require all staff have some knowledge of Spanish.

- Success has been predicated on streamlined operations and rate setting negotiations with the state. They do see private individuals in a higher portion than many clinics given the clinic was a health system fee for service clinic prior to transitioning to a FQHC approximately 4 years ago. It is notable that as a FFS clinic they were losing over 1.5 million per year given their location and the numbers of underinsured or uninsured.
- Location is on a bus line and near other services such as groceries and general shopping. They have negotiated with a local company that has a mobile grocery in a bus those parks at the clinic several days a week.
- Board meetings are monthly and prescheduled and they have been challenged to retain the 51% patient participation however they have patients who have continued at the clinic from the FFS clinic who are affluent and educated who have continued to be on the Board.
- The COO indicates she and the other two administrators are required to wear many hats and that the goal is to have a LEAN organization. The other administrators are responsible for the ancillary services and business office functions.
- Billing is managed with the EHR function and electronic payment management thus requiring minimal internal staff.
- All added service have required a Change of Scope request which is labor intensive and requires approval by HRSA.
- Best advise: be prepared with all policies and procedures, a Board in place, staffing etc. prior to submission of any application. Anticipate a 60-day period for review and approval and a demand to be operational within 120 days of receiving approval.

APPENDIX 8
Example Financial Model for APN Practice

EXAMPLE FINANCIAL MODEL FOR APN PRACTICE
High Level Summary Notes to the Business Model

Introduction/Summary

The Business Model is a Nurse Practitioner centric business model. This means that all assumptions are expressed as a function of practicing Nurse Practitioner full time equivalents (NP FTEs) or are derived from an assumption that is expressed as a function of NP FTEs.

Revenue Assumptions:

The model assumes a panel size 2,000 patients per NP FTE. The model projects 4,496 annual visits per NP FTE, traditional fixed location visits split 90% direct and 10% Group visits, and an expected 10 patients per group visit. The average patient face time during a direct visit is 17.5 minutes with 5 minutes per visit of administrative time for the NP FTE. Group sessions are projected to be 1 hour with 10 minutes of administrative time for the NP FTE.

Services (Visits) are projected to encompass five different service lines including (1) Traditional Fixed Location, (2) Home Visits, (3) Nursing Home Visits, (4) Rehab Hospital Visits, and (5) Procedures. Visits for FQHC, Mobile Van, Clinical Lab/Path Visits, Inpatient Hospital Visits, Diagnostic Radiology visits and Other have not been assumed to remain conservative. 80% of the visits are assumed to be in the traditional fixed location with 20% spread across Home, Nursing Home, Rehab, and Procedures. Travel time has been assumed for services rendered outside of the traditional fixed location.

Payor Mix (Pct of Patient Panel) is assumed to be 45% Medicare and Medicare Advantage, 15% Medicaid (Traditional and Managed), 30% commercial plans, 5% Self Pay, and 5% Charity Care. Visit Volume is intensified for Medicare and Medicaid and Reimbursement Intensity is adjusted across payers. Provisions are included for Value Based Incentive Compensation due to advanced managed care contracts. Overall reimbursement is expected to approximate traditional Medicare FFS reimbursement with a blended net payment per visit in the $139 / visit range (typical visits will include between 2-3 reimbursable CPT Codes). However Commercial compensation is expected to exceed Medicare to offset lines such as Charity Care that yield less than Medicare. It should be noted that NJ Commercial Payers have traditionally compensated Primary Care at 60%-70% of Medicare and therefore a strong managed care contracting group is imperative.

NP FTEs were projected to receive 10 vacation days, 10 holidays, and 10 Personal/Sick Days and be paid on a salary basis. The model assumes a NP FTE seeing patients 1,570 hours per year, working 1,840 hours per year, with 240 hours of benefit time for a total of 2,080 hours per year.

One of the most pivotal assumptions in the model is the Visit/Provider Intensity factor to accommodate the non-productive time of new NP FTEs (either due to growth or turnover). The model assumes 80% efficiency in year one, 85% in year two, and 90% efficiency in

years three to five. There is a myriad of factors that lead to revenue generating providers not achieving 100% efficiency. These factors include:
diminished patient visit demand while building the practice,

- managed care credentialing,
- inefficient scheduling,
- overuse of travel time,
- inefficiencies in EMRs, and
- other inefficiencies leading to increased administrative time.

HCTN Balance Sheet

	Year 1	Year 2	Year 3	Year 4	Year 5
Assets					
Cash, Investments, and Cash Equivalents	$ 277,600	$ 201,415	$ 226,621	$ 392,804	$ 512,363
Accounts Receivables	$ 143,513	$ 228,723	$ 415,162	$ 415,162	$ 553,549
Subtotal	$ 421,112	$ 430,138	$ 641,783	$ 807,965	$ 1,065,912
Fixed Assets					
Buildings	$ -	$ -	$ -	$ -	$ -
Furniture and Fixed Assets	$ -	$ -	$ -	$ -	$ -
Other Fixed Assets	$ -	$ -	$ -	$ -	$ -
Total Fixed Assets	$ -	$ -	$ -	$ -	$ -
Total Assets	**$ 421,112**	**$ 430,138**	**$ 641,783**	**$ 807,965**	**$ 1,065,912**
Liabilities					
Accounts Payable	$ 42,432	$ 63,647	$ 109,110	$ 109,110	$ 145,479
Short and Long Term Debt	$ -	$ -	$ -	$ -	$ -
Total Liabilities	**$ 42,432**	**$ 63,647**	**$ 109,110**	**$ 109,110**	**$ 145,479**
Seed Capital	$ 500,000	$ 500,000	$ 500,000	$ 500,000	$ 500,000
Net Assets or Equity	**$ 378,681**	**$ 366,491**	**$ 532,673**	**$ 698,856**	**$ 920,433**
Days Cash On Hand	54.3	39.4	25.8	44.8	43.8
Debt to Asset Ratio	0.10	0.15	0.17	0.14	0.14
Return on Equity	-32%	-3%	31%	24%	24%

Appendix 9

Letter of Support from Trenton Health Team

June 20, 2016

Phyllis Arn Zimmer, MN, FNP, FAANP, FAAN
President
Nurse Practitioner Healthcare Foundation
2647 – 134th Avenue NE
Bellevue, WA 98005-1813

Dear Phyllis,

On behalf of the Trenton Health Team, I am pleased to provide this letter of support for your proposed development of Nurse Practitioner-led health care services in Trenton. Through our unified community health needs assessment process, which was updated through a survey and series of community forums in 2015, we affirmed the need for increased access to primary care. We also recognize the strength of the new Nurse Practitioner-led model as a viable one that could benefit our community in tangible ways.

We envision building on the successful implementation of a similar approach through St. Francis Medical Center's outpatient clinic, which deploys Nurse Practitioners to good effect. We also have identified areas of the city that are currently underserved, most notably the South Ward, and particularly its Spanish-speaking population. Among the other needs that could be well addressed through this model are patient engagement and behavioral health integration.

We would be happy to help in developing collaborative efforts, identifying and convening key partners, and working together to meet the community's need. We look forward to continued discussions with you towards a goal of improved primary care access within the Trenton community.

Sincerely,

Gregory D. Paulson
Executive Director

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