# 2017-2018
# Implementation Plan Update Report

This report serves as an implementation plan update report for the work undertaken by the Department of Community Health & Preventive Medicine (CHPM) at St. Luke's University Health Network (SLUHN) in conjunction with a variety of network and community partners.

## *HEALTH FOR ALL – Improving Access to Care – Reducing Health Disparities*

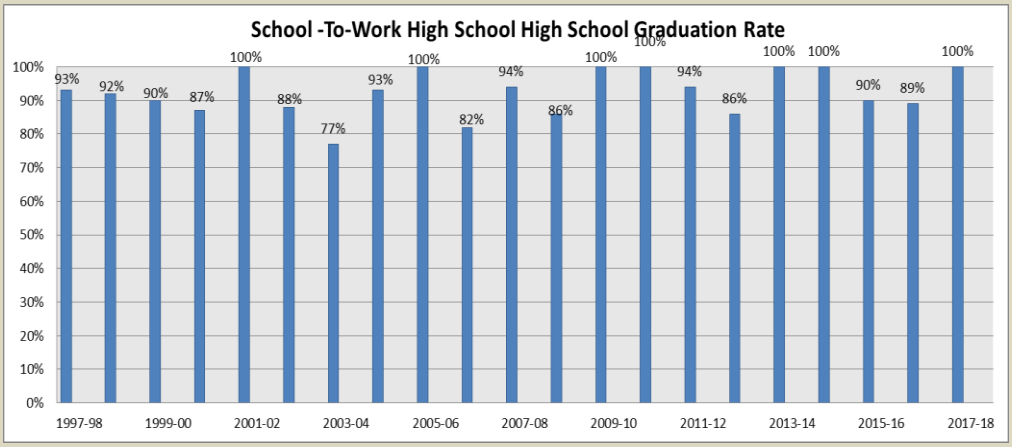
Our SLUHN 2016 CHNA clearly revealed that people in our more vulnerable populations find it difficult to access care, and therefore experience health disparities. This priority focuses on addressing the social determinants of health to promote health equity.


**Prevention and Wellness:**

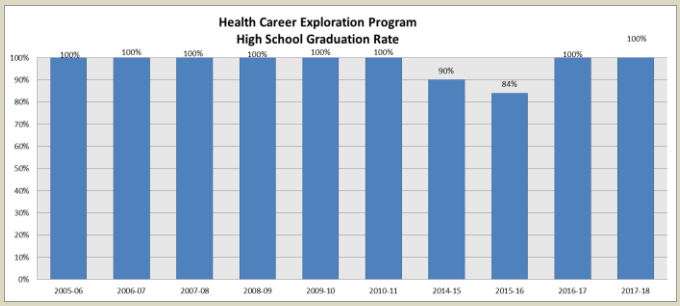
### Adolescent Career Mentoring Initiatives

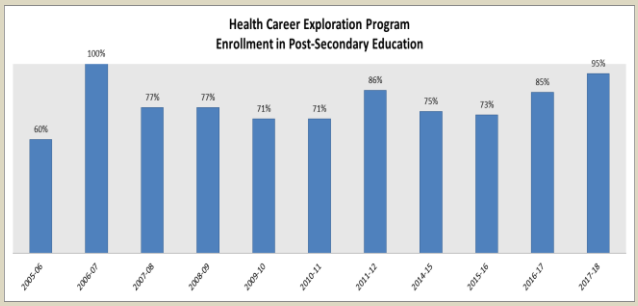
Since gainful employment is vital to success in adulthood and high school graduation is an important indicator for that, the Adolescent Career Mentoring Initiative provides career mentoring programming for in-school and out-of-school youth in Lehigh, Northampton, and Warren (NJ) Counties, through a combination of hospital rotations, professional development sessions, and/or work experience. Initiatives include the School-To-Work Program, Health Career Exploration Program, Next Step, and the CareerLinking Academy programs in Bangor, Bethlehem, Allentown, and Phillipsburg (NJ). The programs focus on increasing graduation rates in high risk populations, improving English language skills for English as a Second Language Learners, providing work experience for high school students in the healthcare field, while teaching job keeping and job seeking skills, and diversifying the healthcare workforce. Adolescent Career Mentoring Initiatives address our CHNA goals related to Improving Access to Care and Reducing Health Disparities, and Improving Child and Adolescent Health.

School-To-Work Program (STW) – In collaboration with the Bethlehem Area School District, the School-To-Work Program provides English as a Second Language students the opportunity to explore healthcare careers. Its intent is to engage at-risk students to remain in school by exposing them to health careers, to offer support and guidance as they work to achieve fluency in English, and to obtain valuable career and life skills. The St. Luke's School-To-Work Program completed twenty-one years since inception.

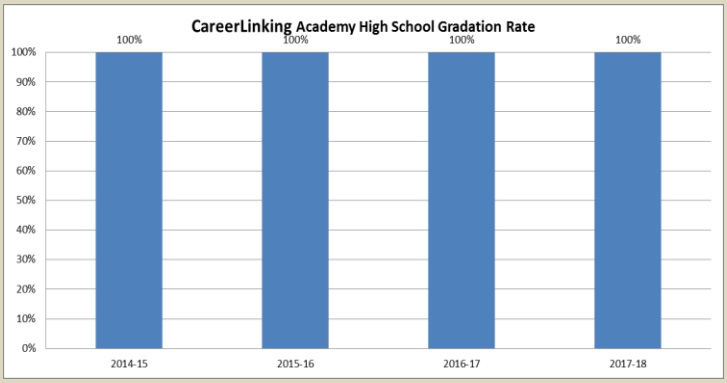


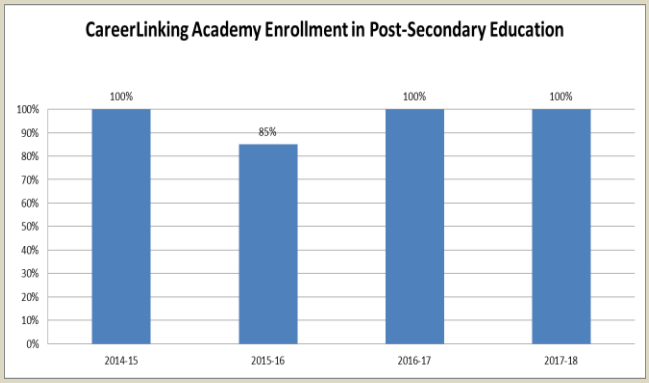
- Health Career Exploration Programs (HCEP) – In collaboration with the Bethlehem Area School District, Allentown School District and the Lehigh Valley Workforce Development Board Inc., the Health Career Exploration Program provides employability skills training and unsubsidized work experiences at St. Luke's Bethlehem, Allentown and Anderson Campuses for high school seniors during the summer and academic year. Over 10 participants have been hired by SLUHN within the last 3 years alone.




- CareerLinking Academy (CLA) – In collaboration with the Bethlehem Area School District, Allentown School District, Bangor Area School District and Phillipsburg School District, the CareerLinking Academy Program combines observational learning experiences and professional development sessions focusing on exposure to healthcare careers with job readiness skills training. This program serves approximately 40 students a year. Since St. Luke's CareerLinking Academy expanded to the Bangor in FY17, Phillipsburg School Districts, at the Warren campus community was added in FY18.




- Next Step Program (NSP) – In collaboration with Lehigh Valley Workforce Development Board, Inc., the Next Step Program provides employability skills training and subsidized work experience for out-of-school youth aged 17 to 25 years old at the Bethlehem & Allentown Campus, and St. Luke's Physician Group locations. This program placed students in entry-level positions available at St. Luke's University Health Network (SLUHN) for a total of 520 hours of work experience. In 2017, 87% of the youth participating in this program were gainfully employed, with 47% employed at SLUHN with a pay range of $12.00 to $25.00 per hour.

- Medical Career Pathways (MCP) – In collaboration with Palisades School District and Quakertown School District, St. Luke's Quakertown Campus provides high school students the opportunity to explore healthcare careers through clinical rotations and lectures. The program was designed to expose a dozen high school students from each district who are interested in the medical field to various aspects of the industry.

## Literacy Initiatives

According to the Children's Defense Fund, a direct correlation exists between literacy at a young age and general health. Many studies confirm the link between poverty, academic performance, career success, lifestyle choices, and health status. Furthermore, students not reading at grade level by Grade 3 are more likely to, at best, live in poverty and at worst, become incarcerated. It also leads to poor health literacy; affecting people's ability to search for and use health information, adopt healthy behaviors and act on important public health matters. With that in mind, SLUHN has developed a multi-pronged approach to help meet the literacy needs of children, with a focus on children from birth through third grade. More than 10,000 books were received this year (book drive, individual contributions, colleges and universities, AAUW) and nearly 9,000 books were distributed through:

- **Maternal Child Health** - 205 books
- **Schools** (Reading Rocks at Union Terrace is not known) – 1,409 books
- **Little Free Libraries** – 1,907 books
- **Vans and Clinics** – 4,693 books
- **Community Programs/Events** – 538 books

Additionally, in FY18 the VNA - St. Luke's Maternal Child Health programs, through our preventive nurse-led Home Visitation Programs (Nurse Family Partnership (NFP) and Parent Advocate in the Home (PATH) offered parent education, and pre-literacy instructions. SLUHN supported Read Across America - Dr. Seuss Day and sent volunteer readers to seven school districts (Allentown, Bethlehem, Bangor, Panther Valley, Phillipsburg, Quakertown and Pocono Mountain) associated with seven hospital campuses, and we traveled to twenty-two different schools, providing Dr. Seuss books and bookmarks. SLUHN visited 142 K-5 grade classrooms, reading and engaging over 4,000 students through discussion and related activities. Little Free Libraries (LFL) are maintained at seven elementary schools as well as on the following campuses: Anderson (2); Bethlehem (2); Quakertown (1); Miners (1); Nesquehoning Rural Health Center (1). This year, two LFL's at Bethlehem were purchased and are maintained by the Student Government Association of St. Luke's School of Nursing and we are currently in the process of adding a LFL at the Monroe Campus.

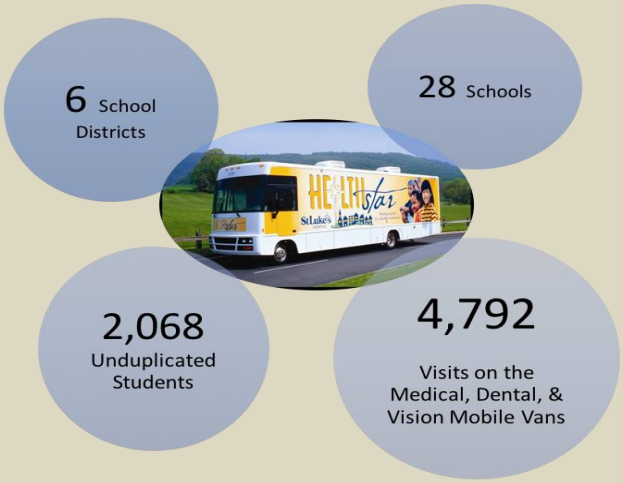
## Youth Succeeding in School Program

Our Youth Succeeding in School (YSS) program aims to reduce chronic absenteeism for at-risk students in grades K-4 at Donegan Elementary School through wraparound case management services. The Family Development Specialist (FDS) works with families of students who have or are at risk of having chronic absenteeism, to identify attendance barriers and work to address the barriers. During the 2017-18 academic year the FDS worked with 71 students' families. Of those 71 students, 62 (87%) improved their attendance.

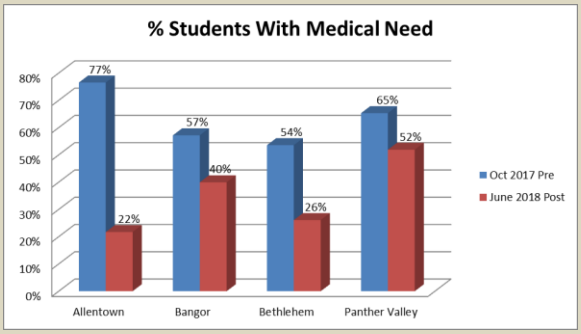

**Care Transformation:**

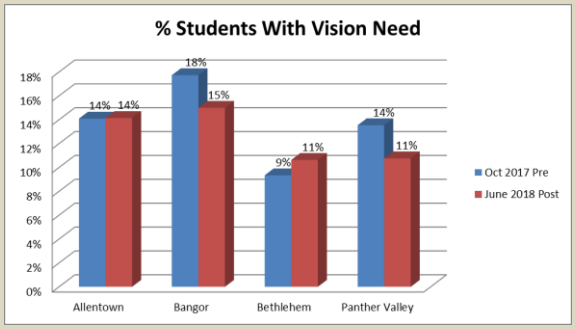
## Adopt a School Initiatives

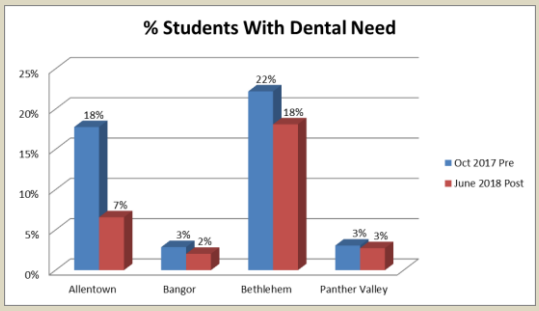
Our Mobile Health and Adopt a School Initiative is one of our primary community-based initiatives addressing issues related to this health priority. Since 1994 SLUHN has been providing medical, vision and dental care on our Mobile Vans. Our goal is to increase access to care for



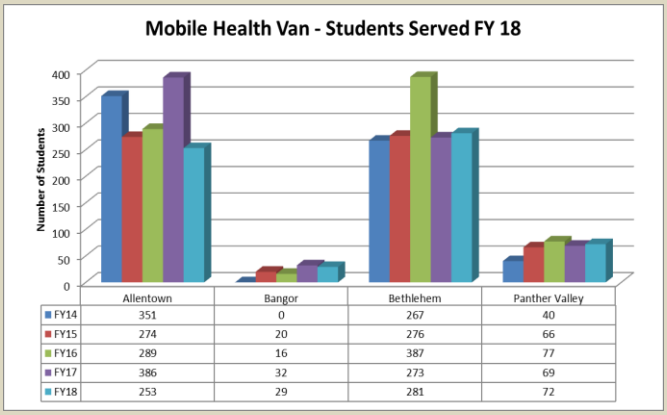
students who are uninsured, underinsured or who slip through the cracks in our health care system. Additionally, we have added integrated behavioral health services and nutrition counseling to our Mobile Health services. SLUHN is the lead and corporate partner to two United Way Community Schools. As lead partner, SLUHN employs two full-time Community School Coordinators who, with full agency support, work directly in the schools to enhance and coordinate social services and opportunities for students and families to learn and be successful. The charts below show the percentage of students who were identified as needing Medical, Vision and Dental care through failed screenings. Adopt a School continues to grow as the program expands into the Clear Run Campus of Pocono Mountain School District, through a grant secured by the United Way of Monroe County and the funds raised by the Monroe Campus Corks and Forks Fundraising Event.



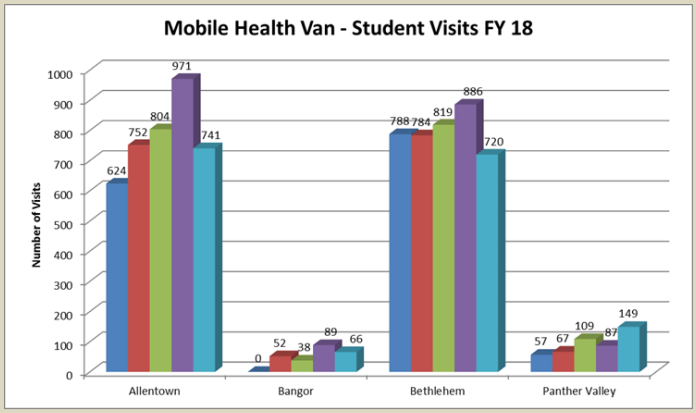




In October 2017, SLUHN partnered with Bangor, Allentown and Bethlehem school districts in a marathon screening event using the Penn State Pro Wellness model to perform state mandated health screenings at the start of the school year. Historically, these screenings may not be completed until January or February of the academic year, delaying access to care and contributing to poor academic performance.




| | Allentown | Bangor | Bethlehem | Panther Valley |
|---|---|---|---|---|
| FY14 | 351 | 0 | 267 | 40 |
| FY15 | 274 | 20 | 276 | 66 |
| FY16 | 289 | 16 | 387 | 77 |
| FY17 | 386 | 32 | 273 | 69 |
| FY18 | 253 | 29 | 281 | 72 |



Additionally, St. Luke's is committed to the oral health needs of the community by bringing together groups and resources to address dental challenges. The Dental Program has experienced growth in three major areas:

1. Blue Mountain Dental Van
2. Sacred Heart Dental Clinic
3. Expanded Residency Program with six Residents at the Bethlehem/Easton locations and three Residents at the Sacred Heart location.

The Bethlehem and Easton Dental Clinics provide comprehensive dental treatment to the adults and children of the Lehigh Valley and surrounding counties. The Fowler Clinic, located at 511 East 3rd Street Bethlehem treated 2,054 patients in FY18 through a total of 5,546 appointments for a total of production amount of $1,143,556.00. 22% of patients at the Fowler Clinic were uninsured. The Easton Dental Center provides adult dental services and has a focus on pediatric dentistry. It is located at 100 North 3rd Street in Easton, and treated 1,679 patients in FY18 through a total of 4,169 appointments for a total of production amount of $748,220.00. 7% of patients at the Easton Dental Center were uninsured.

St. Luke's Mobile Dental Program provided dental care to Bethlehem, Allentown, Bangor, Quakertown, and Phillipsburg School Districts for the 2017-2018 school year. St. Luke's Mobile Dental Program also provided dental care in partnership with Neighborhood Health Centers of the Lehigh Valley, Bethlehem Kids Care, and AmeriHealth Caritas. The Kids Care and AmeriHealth Caritas partnership was to establish a dental home for children who have not previously received dental care. Through a collaborative effort with Northampton Community College's School of Dental Hygiene, the Dental Sealant Program provides the dental van for placement of preventive dental sealants for Bethlehem Area School District students. In Bethlehem, 783 patients were treated through a total of 2,294 appointments in FY18. The van provided Dental Homes to 11 area schools. The total of production amounted to $399,310.00, with 34% of patients being uninsured. Similarly, in Allentown the van treated 790 patients through a total of 2,330 appointments in FY18. The van provided Dental Homes to 9 area schools & 2 community locations. The total production amounted to $468,486.00, with 51% of patients being uninsured.

Through CH&PM partnerships, The Pennsylvania Office of Rural Health Dental Delivery Systems Coordinator trained over 60 SLUHN employees in Healthy Teeth Healthy Children (HTHC), a program of the Pennsylvania Chapter of the American Academy of Pediatrics (PA AAP), which is a state-wide educational program focused on improving oral health care for children by providing education to primary care providers, facilitating medical-dental partnerships and enhancing oral health literacy for the community. Additional trainings for SLUHN dental residents and staff included PA Age One Connect the Dots.

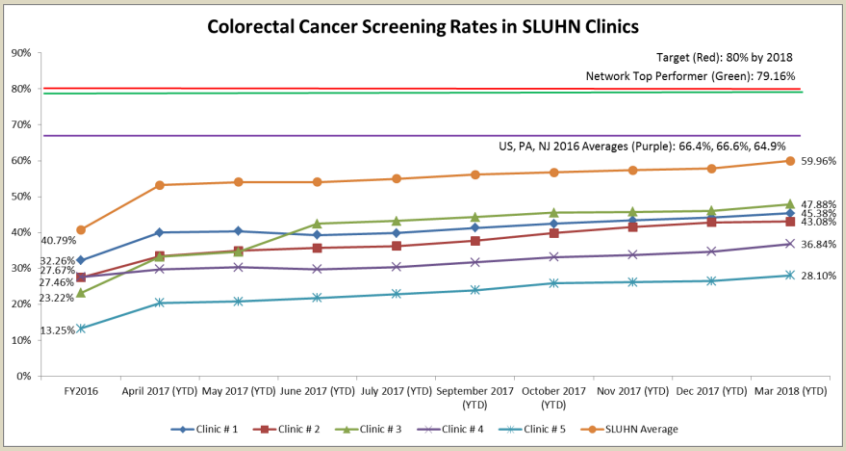
Portions of these projects were supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under the Rural Health Network Development Planning Grant Program (Grant number P10RH31086) for $99,237.00 and the Rural Health Care Services Outreach Grant Program (grant number D04RH28435) for $199,003 with approximately 50% percent financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

## Cancer Screening Initiatives

Continued efforts to develop a network wide process to create a Health Equity Fund to utilize funds granted by the Brem Foundation's B-Fund resulted in collaboration among multiple service lines to bundle and provide pro-bono (pathology) services for diagnostic breast screenings conducted for our uninsured and poorly insured patients. The B-Fund has served a total of 18 women for $2,199.52. SLUHN has also

partnered with the Brem Foundation to bring the Re-Bra Initiative to our service area. The Re-Bra initiative is a unique and easy way for women, especially breast surgery patients, to donate their pre-surgery bras to low-income women who may not be able to afford bras of their own. The bras are distributed in homeless shelters and soup kitchens with breast health information as well as a clinical connection to the Healthy Women Program run through the Health Bureaus for free breast and cervical cancer screenings. Volunteers will assist with pinning of educational materials to bras, helping to educate and empower women in the Lehigh Valley, and quarterly pick up at donation boxes.


Additionally, an ongoing multifaceted Colorectal Cancer Screening research project across four separate clinics continued through FY18 to ensure that screening and treatment rates increase among our vulnerable populations, where rates are typically lower and later stage cancers are more frequently diagnosed. This project is a result of collaboration among clinic staff, providers, service lines, medical students, residents, researchers and CHPM. The first phase of this project was the completion of surveys by providers, staff and patients to assess and inform of needs. The team has also been working on scholarship research and publications related to this project. As a result, the group continues to work on a multidisciplinary approach to improving quality metrics among some of our highest need populations.




## HIV Prevention and Treatment Initiatives

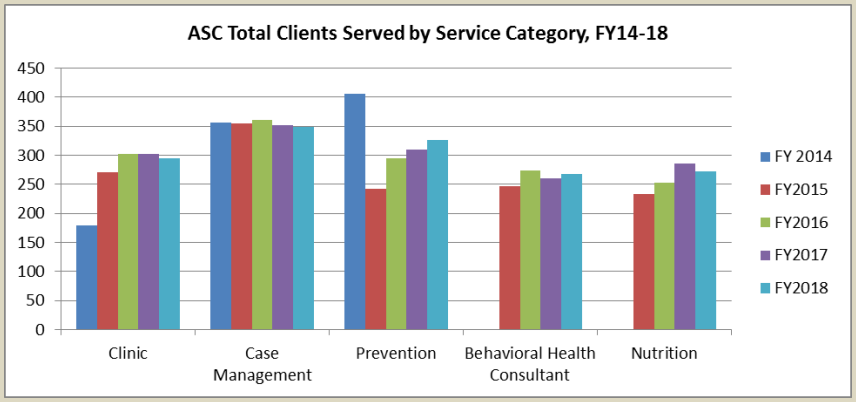
The National HIV/AIDS Strategy has four primary goals:

1) Reduce new HIV infections.
2) Increase access to care and improve health outcomes for people living with HIV.
3) Reduce HIV-related disparities and health inequities.
4) Achieve a more coordinated national response to the HIV epidemic.

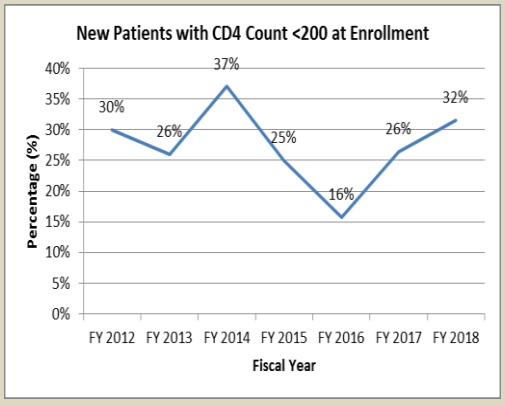
The new vision of the strategy states that the United States will become a place where new HIV infections are rare, and when they do occur, every person, regardless of age, gender, race/ethnicity, sexual orientation, gender identity, or socio-economic circumstance, will have unfettered access to high quality, life-extending care, free from stigma and discrimination. At St. Luke's AIDS Service Center (ASC), staff strives to meet

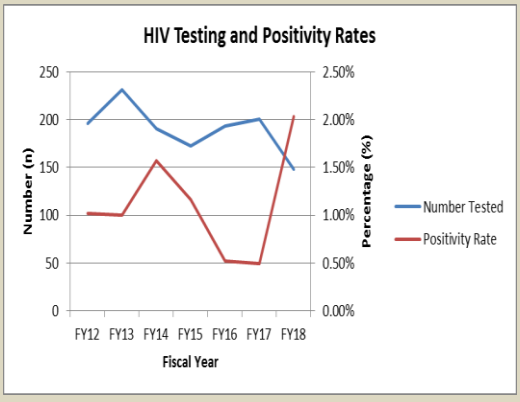
the national vision by providing rapid HIV testing and prevention services, comprehensive primary and specialty care, case management and social support services, housing case management services and integrated behavioral health services to HIV+ or high-risk individuals. This past year, services were funded by the U.S. Dept. of Health and Human Services through its Health Resources and Services Administration (HRSA) Ryan White grant program, AIDSNET, and the PA Dept. of Health.

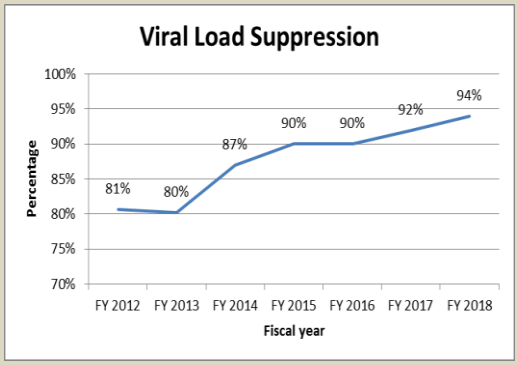
In FY18, ASC changed its name to HOPE, which stands for Health, Outreach, Prevention, and Education. The new name, HOPE Center, indicates a focus on patient's co-morbidities as HIV outcomes have sustained and furthermore addresses the stigma associated with HIV/AIDS. HOPE provided comprehensive clinical care and case management services to a total of 396 unduplicated patients. The Ryan White Part C grant funding was extended until March 2021 to support our clinics in Bethlehem and Easton. Moreover, health economic benefits of moving patients from unsuppressed to suppressed viral loads in the past year indicate total medical costs averted due to HOPE care was $219,936. 104 HIV+ patients were seen at our new Easton Clinic at the end of FY18. 38 new patients enrolled in our comprehensive HIV clinical services – 14 in Easton and 24 in Bethlehem.

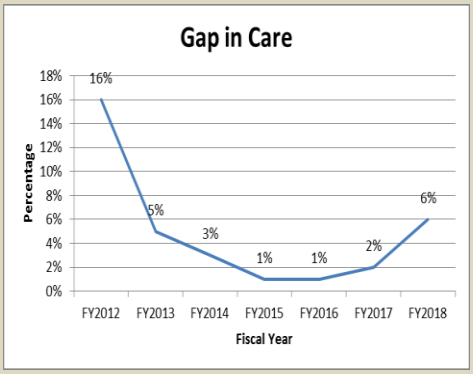



Overall, 94% of our patients have a suppressed viral load, and only 6% of patients were viewed as out of care (no visit in the past 6 months) as of the end of FY18. Additionally, 89% of our patients were considered to be retained and appropriately receiving HIV and primary care services at least every 6 months over the previous two years. Tobacco cessation counseling was at 86.8%, which has increase over the past three years from 77.3% in FY15. Success continued for the ARTAS program (a program to reconnect people living with HIV/AIDS to clinical care) with 86% of patients linked during FY18 being retained in their medical care. Considering all 4 quarters of the fiscal year, Partnership for Health completed 99% of eligible prevention sessions during HIV appointments.







**Research & Partnerships:**
We continue to address the needs determined through our CHNA through collaborative partnerships at the local, regional, state and national levels.

In FY18 SLUHN developed a network-wide process for accessing the Health Equity Fund comprised of money secured through grants totaling approximately $55,000. This fund allows the network to address the social determinants of health among our vulnerable populations to facilitate access to care and reduce health disparities. A continued partnership with the HCM foundation allows our patients access to additional funds.

Parish nursing programs have been supported in our Allentown community since our recent merger with Sacred Heart Hospital. It is a specialty practice of a registered nurse and a professional model of health ministry. Parish nurses provide holistic nursing care to faith community members while facilitating wellness and the promotion of a healing community. The program serves 4 urban Allentown congregations, 2 soup kitchens, and 3 outreach sites. Parish Nursing has been unfolding in the US since 1980, has been in the community since 2003 and is now international.

The Health Education and Advocacy Resources at Temple/St Luke's (HEARTS) Clinic is a student-run free clinic (SRFC) that functions through a partnership between St. Luke's University Health Network, Lewis Katz School of Medicine at Temple University, and various community partners. Operating as a health and wellness clinic, HEARTS Clinic provides free physicals, immunizations, preventive screenings, health education, and care coordination to vulnerable populations in Bethlehem, Pennsylvania. The clinic serves patients regardless of ability to pay. The benefit is two-fold, uncovering and addressing health disparities in the community our network serves while also educating future health care professionals about social determinants of health. During FY18, a total of 25 unduplicated patients were served through HEARTS clinic, on 8 clinic days.

The Resource Education and Advocacy in Community Health (REACH) Program launched in FY18, with the mission to provide primary and preventive care to the homeless and impoverished populations of the Lehigh Valley while educating students and future physicians about the unique problems of individuals experiencing homelessness. An integrated, team-based approach will help break the cycle of poverty and embolden current efforts to improve access to care and mental/behavioral health while reducing health disparities through direct street and shelter-based outreach, fostering relationships and trust.

When reviewing aggregate data for the Lehigh Valley, the majority of people who comprise our vulnerable populations identify as Hispanic. Therefore, it is important to ensure that community organizations like the Hispanic Center of the Lehigh Valley (HCLV), who provide resources and support to the Hispanic community, are vibrant and successful. In the fall of 2016, there was a management change at HCLV and to provide support and infrastructure, SLUHN and CHPM developed a more intentional collaborative partnership. We conducted an operational assessment at HCLV, which helped us identify areas such as data systems, personnel issues, policies and procedures that we were able to assist with. Additionally, St. Luke's assisted with a capital campaign for the revitalization of HCLV. We continue to be a resource and support to the community agency to ensure success.

In our rural region, CH&PM partners with our Rural Health Centers and the newly approved and accredited, by the Accreditation Council for Graduate Medical Education (ACGME), first Rural Training Track residency program in PA and the first residency program in Schuylkill or Carbon County. This track offers alignment and experiences in Community Medicine with our programs and programs.

Pennsylvania Department of Health, Public Health 3.0 (PH 3.0) is a regional effort to strategize and create programming and alignment in key health priority areas in northcentral region of PA. St. Luke's Miners Campus has been a partner in the hub since the initiative's inception and recently hosted a PH 3.0 meeting in April, 2018 with over 40 community members in attendance.

St. Luke's Miners Campus was the recipient two US Health and Human Services, Health Resource and Service Administration (HRSA), Federal Office of Rural Health Policy grants allowing us to further partner in outreach and planning to identify and address rural health needs such as improving access to care, including oral health, and improving physical, mental and behavioral health in both Carbon and Schuylkill Counties.

## *FIT FOR LIFE – Promoting Healthy Lifestyles, Reducing Chronic Disease*

Reducing obesity through diet and exercise is the cornerstone of this health priority. Research shows that people with lower BMI's are at lower risk for a variety of chronic diseases. This is especially pertinent when addressing the growing diabetes epidemic. Obesity is determined by BMI, which is an indirect measure of an individual's body fat. Based on standardized BMI calculations, 71% of the 2016 CHNA survey respondents fell into the "overweight or obese" category. As BMI of respondents increases, so does the prevalence of chronic disease. 40.2% of respondents with a healthy BMI reported having chronic diseases, while 75.5% of morbidly obese respondents reported having a chronic disease. An inversely proportional relationship is observed when consumption of fruits and vegetables is compared to the presence of chronic disease. As the consumption of fruits and vegetables increases, the presence of chronic diseases decreases. 65.4% of respondents who reported having zero servings of fruits and vegetables had a chronic disease, whereas only 40% of those reporting more than 7 servings of fruits and vegetables had a chronic disease.


**Prevention and Wellness:**

## Nutrition Initiatives

St. Luke's is working with the community to teach and develop the skills to make healthy behavior changes that will lead to improved diet and nutritional well-being. Through hands-on educational approaches, community participants learn to grow and prepare nutrient-dense foods, make nutritionally sound food choices and learn how to shop for nutritious foods on a budget. Kellyn served a total of 9 school districts, 37 schools, and facilitated the development of 25 school gardens. 13 of those schools (5 of the districts) and 13 of the school gardens were part of the St. Luke's Adopt a School model. In total Kellyn made 772 classroom visits.

- Allentown School District – Union Terrace, McKinley, Cleveland
- Bethlehem Area School District – Fountain Hill, Donegan, Marvine, William Penn
- Bangor Area School District – Washington, Five Points, DeFranco
- Panther Valley School District – Panther Valley Elementary and Panther Valley Intermediate
- Phillipsburg Area School District – Phillipsburg Elementary

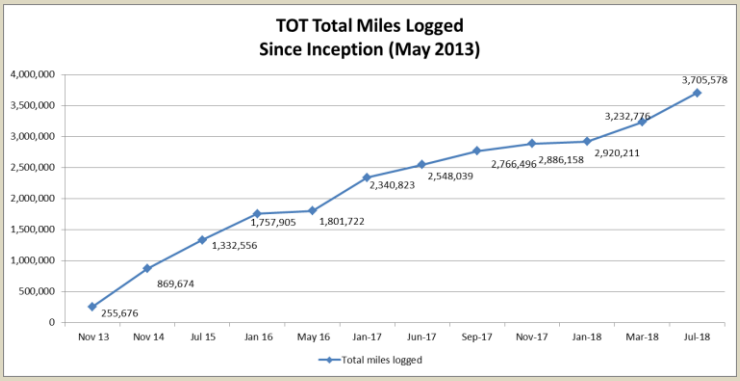
The Kellyn Foundation's Mobile Market continues to provide produce for sale across locations in Northampton County, all of which are in areas with little or no access to fresh produce.

## Physical Activity Initiatives

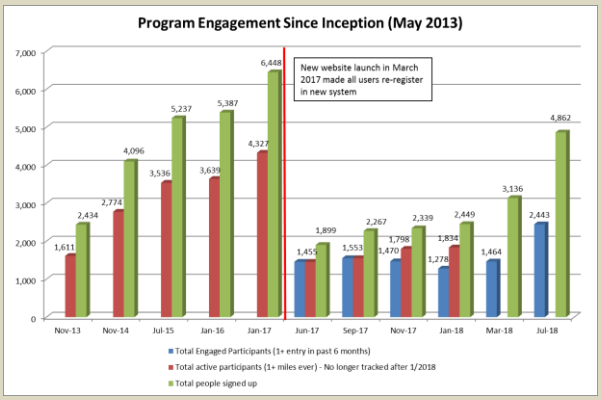
People who are physically active generally live longer and have a lower risk for heart disease, stroke, type 2 diabetes, depression, some cancers, and obesity. St. Luke's works with partners to create safe places for physical activity enhance physical education and physical activity in schools and communities. We also encourage our patients to become more physically active through programs such as Get Your Tail on the Trail, Walk with a Doc, and Bike Bethlehem.

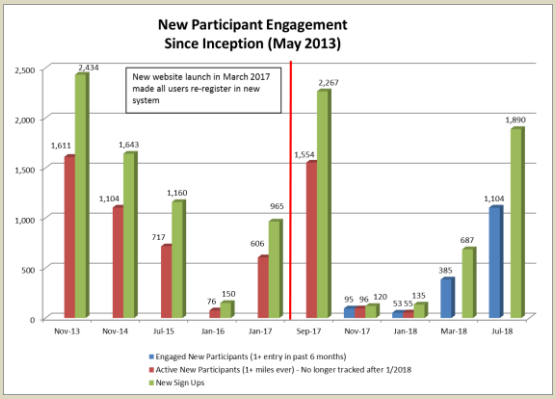
The Walk with a Doc program continues to grow with 580 unique walkers across the network (ranges from 20 at Warren to 299 at Miners). 925 total walks were taken (ranges from 78 at Warren to 335 at Miners) with an average of 25 walkers per event (ranges from 7.1 at Warren to 55.8 at Miners). Additionally, 43 unique providers have participated in the Walk with a Doc program (ranges from 5 at Warren & Miners to 22 at Lehigh Valley).

Tail on the Trail continued to grow and build infrastructure, with a total 4,862 enrolled users. 2,443 of the enrolled participants were engaged users (50% of enrolled). Additionally, 835 users completed the 30/30 winter mini challenge and 779 users completed the Move More in April challenge. The 165 challenge is currently underway until November 2018



**(939,082 miles logged on new website since Mar 2017)**




## Center for Integrated Health

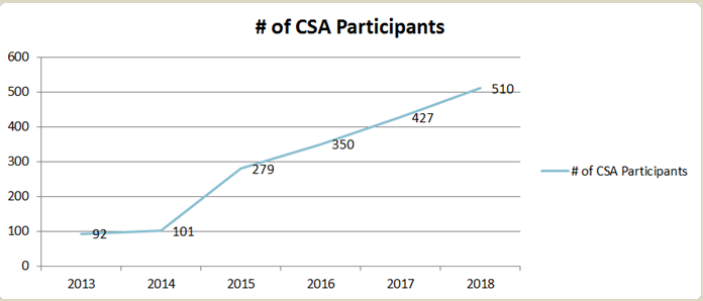
In January, 2018 we opened up a center for integrated health called the HOPE Easton Wellness Center to bring a set of healthy living programs and services to our HOPE clinic patients, with the aim of reducing chronic disease and improving several biometric health indicators. Individual services include medical-based health coaching, personal fitness assessments, and personal fitness training. Group programs include yoga, strength training, and cooking classes. In just the six months since opening, 63 individuals have visited a combined 256 times for facility tours, individual services, and group programs. Even more exciting is the fact that some of the most frequent participants are starting to show improvements in their blood sugar and blood pressure levels, and report increased energy and flexibility. We expect quantifiable improvements on these measures as participation increases over time. Future plans include adding a "farm to fork" element to the cooking program incorporating volunteering and access to fresh, local produce, increasing the number of yoga and cooking classes, and adding financial and spiritual wellness programs.

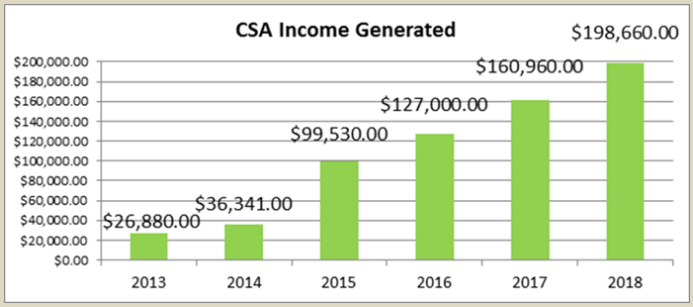
## Employee Wellness Initiatives

In order to assess and address the health needs of SLUHN employees and spouses, SLUHN has an established employee wellness initiative called *Caring Starts with You* (CSWY) that serves employees and their spouses. Research shows that regularly eating a well-balanced diet and maintaining a healthy weight can help reduce risk for many health conditions, including high blood pressure, high cholesterol, high triglycerides, diabetes and certain cancers. According to the CDC, 76% of the US population did not meet fruit intake recommendations, and 87% did not meet vegetable intake recommendations. The CDC also states that "substantial new efforts are needed to build consumer demand for fruits and vegetables through competitive pricing, placement, and promotion in child care, schools, grocery stores, communities, and worksites."

Increasing employee access to locally-grown produce through the expansion of the Community Supported Agriculture (CSA) program was a continued area of focus for SLUHN CSWY in 2017/2018. The program was offered network-wide for the fourth year, and currently serves 15 locations, including new distribution sites at Quakertown Bone and Joint, Upper Perkiomen Outpatient Center, West End, Hillcrest Plaza, Anderson Campus, and St. Luke's North/Commerce Way. The ability to provide weekly shares of produce is possible through sustained partnerships with local farmers throughout the Network's region. At St. Luke's Center, we also offered community shares to employees of other companies in the building. The program has grown from one farmer delivering weekly to three locations (during and prior to 2014) to nine farmers

delivering weekly to 15 locations throughout the network. CSA membership growth has increased year over year since 2013. This year, locally-grown produce was provided to 510 people at 15 network locations in Pennsylvania and NJ. Over $198,000 was generated and returned into the pockets of 9 local farmers. We used interns at a distribution sites to aid with staffing. In FY18, 351 shares were donated to local soup kitchens and food pantries.





**Care Transformation:**
Behavioral Health, Diabetes Self-Management and Treatment (DSMT) program and Diabetes Prevention Program (DPP) tied to our clinics and employee health continue to grow. As we build our community-facing programs we look to expand our team-based approach of care coordination within SLUHN's many clinics. We currently have at least a part-time outpatient Social Work Case Manager in each of our clinics. Our future goals seek to develop a more team-based approach with RN Care Coordinators, Social Work Case Managers, and Primary Care Physicians working as a team to assess patients holistically and help reduce barriers to adherence to treatment plans; self-management; reduction in emergency room visits; and access and follow-through with preventative care. Mental Health is at the top of the list for social work referrals. Understanding and continuing to track our trends will help give us some clear direction on how to improve our services.

## Diabetes Prevention Initiatives

The St. Luke's Miners Diabetes Education Center expanded the Diabetes Self-Management Training (DSMT) to South Bethlehem this past year. The expansion was due in part to St. Luke's receiving a PA Department of Health (PA DOH) Diabetes Outreach Grant. The purpose of the grant is to develop an alternative health care delivery model focusing on the social determinants of health to improve diabetic outcomes of patients attending the St. Luke's Southside Medical Center (SSMC). The PA DOH grant allowed for a team-based approach for diabetes care to include a patient navigator, integrated behavioral health specialist, nutrition/diabetes educator and a community care coordinator.
In FY18, we had 30 participants from St. Luke's Miners with 13 completing the program. We also had 35 participants in Bethlehem, with 26 completing the program. The adjacent data is for the all participants who completed the program only, and for whom pre and post records were available.

| | Pre | Post | Change |
|---|---|---|---|
| BMI (38 records) | 35.05 | 34.22 | 0.83 |
| | | | |
| A1C Level (33 records) | 9.23 | 8.25 | 0.98 |


**Research & Partnerships:**
Our partnership with the Kellyn Foundation exposed medical students, residents and undergraduate students to the importance of consuming healthy, nutritious food and a plant-based diet for warding off chronic disease.

Additionally, we expanded our role with Lehigh Valley Food Policy Council by chairing the Community Farms and Gardens work group as well as the Consumer Education work group, with both work group chairs taking on active roles on the Council's steering committee. We also partnered with Buy Fresh Buy Local (BFBL) to extend and expand the grant-funded "double SNAP" (Supplemental Nutrition Assistance Program), where consumers can obtain larger quantities of local produce at no additional cost.

In partnership with the City of Bethlehem and the Bethlehem Public Library, SLUHN launched a free bike share program with two locations including the Bethlehem Public Library in North Bethlehem and Cutter's Bike Shop in South Bethlehem. Approximately 200 Bike Bethlehem bikes were used in this past year as part of the free bike share program.

We continue to address the needs determined through our CHNA through collaborative partnerships at the local, regional, state and national levels.

## *Improving Mental/Behavioral Health*

Our 2016 CHNA revealed that we have a shortage of mental health providers across our network campus communities with our rural areas most affected. Additionally, we learned from our 2016 CHNA survey that approximately one third of our population experiences one or more poor mental health days when asked about the last 30 days. Our goal is to improve the mental/behavioral health for residents in the Lehigh Valley through prevention and access to appropriate, quality mental/behavioral health services while building infrastructure across our St. Luke's University Heath Network (SLUHN) communities through the Department of Community Health & Preventive Medicine (CHPM).


**Prevention and Wellness:**
Public health research has effectively indicated that changing the environment for communities can create effective behavior change. We have built infrastructure to support this as we continue to collaborate to include anti-bullying, mindfulness and yoga practices for staff and students into the behavioral health component of our Adopt a School Model at Bethlehem, Allentown, Bangor and Panther Valley School Districts. Additionally, Bethlehem and Allentown School Districts are embarking on trauma informed care models with community partners such as SLUHN and the United Way.

Additionally, across SLUHN, Employee Wellness launched SilverCould which is an online behavioral health program for employees and their spouses, providing supported cognitive behavioral therapy content relating to anxiety, depression and stress. In FY '18, 1032 SilverCloud licenses were activated. So far in FY '19, an additional 962 SilverCloud licenses were used, exceeding our 2 year pilot target of 2,000 licenses just 2 months into year 2.

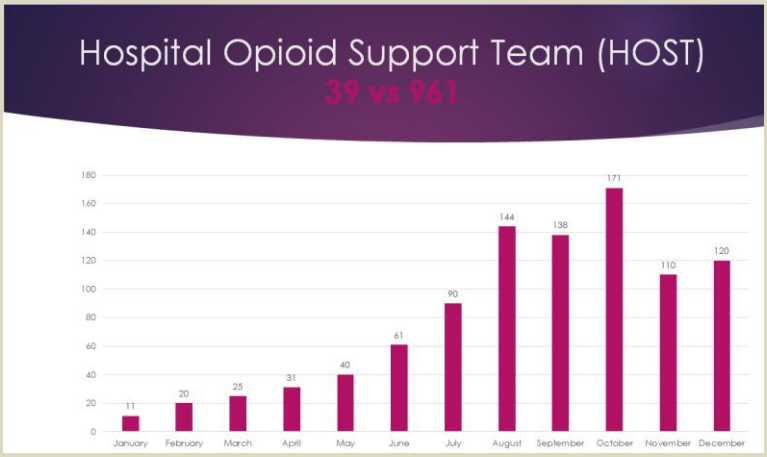

**Care Transformation:**
SLUHN is committed to identifying new models of care to more effectively address mental health, including routine screening of all patients for behavioral health issues through PHQ-2/9, using Integrated Behavioral Health models, and through collaboration with other community agencies. In order to enhance the nature and scope of mental health interventions to fill gaps, improve effectiveness, reduce stigma, and identify and address problems early behavioral health services are being offered on the mobile vans. Each student seen on the Mobile Health Van is screened for behavioral health issues and services are provided by a licensed clinical social worker (LCSW), in partnership with Pinebrook Family Answers and United Way of the Greater Lehigh Valley. This service is offered in four different school districts (Allentown, Bethlehem, Bangor and Panther Valley). These programs are offered in conjunction with the schools and guidance counselors who are an integral part of care delivery.

Additionally, efforts have begun across SLUHN to increase the proportion of primary care facilities that provide mental health treatment through a collaborative care model or medical home/case management model. We have also increased depression screenings by primary care providers for adolescents and adults and are working towards building capacity for community-wide approaches to addressing mental health needs in the local communities served by SLUHN through a psychiatric residency program. We are also working towards the incorporation and support of mental health counseling services within the HeartsLink

clinic for providing free care for uninsured and poorly insured individuals. We also continue to work towards promoting access to care for mental health services for the geriatric population.


**Research & Partnerships:**
Collaborations with area universities to build a strong provider base continue to grow and develop with Lehigh University, DeSales University and the Lewis Katz School of Medicine at Temple University.

CHPM and Behavioral Health at SLUHN have been actively involved in county and health bureau task forces to combat the opioid epidemics currently being faced by our communities. There are opioid task forces in communities serving Bethlehem, Allentown, Anderson, Quakertown, Miners, Monroe, Warren, and Quakertown campuses. The intent is to build better collaboration between systems, particularly the county and the hospital, to ensure people seeking care are referred to and connected to recovery services and integrate the warm hand off process, that has proven success in Lehigh county.




According to Lehigh County Drug and Alcohol, the rate of drug-related overdose deaths in Pennsylvania increased from 26.7 per 100,000 in 2015 to 36.5 per 100,000 in 2016, far exceeding the national average (16.3 per 100,000). In 2016, the overdose death rates in Lehigh County (for Lehigh residents dying in Lehigh) was 33 per 100,000. However, when non-county residents who died in Lehigh are factored in, Lehigh's death rate far exceeds State averages. From December 1 to 31, 2017 –Drug of Choice as per claims data indicated 9,525 opioid claims versus 596 alcohol claims. In 2017 there were 197 drug related deaths in Lehigh County. Through a partnership process development, Lehigh County was able to engage patients using opioids in a warm hand off process (HOST) that increased referrals from 39 to 961.

Work is also under way to develop Trauma Sensitive Programs**.** This United Way led effort would allow partnerships with community organizations to implement trauma sensitive programs in partner schools and provide training for SLUHN department and service line staff to provide trauma sensitive care to patients. Mindfulness initiatives are being strategically built within the Adopt a School model to address resiliency within the community schools using the Trauma Informed Care Model.

## *HEALTHY KIDS, BRIGHT FUTURES – Improving Child/Adolescent Health*

Improving Child and Adolescent health was identified as one of the five health priorities in our 2016 CHNA. In examining some of the youth health needs in our community more specifically, the ACS (2009-13) we found that in the SLUHN service area, 38.22% of children under the age of 18 were living in households with incomes that are at or below 200% of the Federal Poverty Level. This was lower than the national percentage (43.81%) and the Pennsylvania percentage (38.97%). Lack of insurance is related to the issue of poverty, since many of those in poverty are unemployed or do not have enough money to pay out of pocket for healthcare services. According to the Small Area Health Insurance Estimates (2012), 5.71% of children under the age of 19 were not covered by medical insurance. This uninsured rate was worse than the

percentages seen in New Jersey (5.38%) and Pennsylvania (5.31%), but was better than the national percentage of uninsured children (7.54%). It is important that we support children and adolescents in our communities, as they are the hope for generations to come.

SLUHN is committed to the goal of improving the health and well-being of women, infants, children and families. These goals are accomplished through network-wide programming such a Adopt A School and Adolescent Career Mentoring, as well as CHPM Maternal Child Health (MCH) Initiatives which consists of collaborative SLUHN and community organizational partnerships, and our three home visitation programs implemented through the Visiting Nurse Association of St. Luke's: the Nurse-Family Partnership (NFP), Parent Advocate in the Home (PATH) and the Visiting Nurse Advocate for the County (VNAC). Each of these programs has a slightly different focus with the goal being to create positive environments in which children can grow in safe, healthy, and nurturing homes. Together, the MCH programs address priority areas such as: pregnancy outcomes including low birth weight, preterm birth, improving breastfeeding rates, and the prevention of child abuse. Additionally, MCH serves as a community care coordination effort that works towards connecting children to medical homes, improving immunization rates, and keeping children on track physically and developmentally. These efforts help with preventing illness and disease and assist in reducing the already overwhelming costs of health care.

The MCH Initiatives continue to demonstrate positive outcomes. Through our three home visitation programs we have served 533 unduplicated families in FY18. The NFP, PATH, and VNAC programs serve families residing in Lehigh and Northampton counties. However, because NFP is a national program with sites across Pennsylvania the Miners campus has formed a partnership with the Schuylkill county NFP, while Warren campus is served by the New Jersey program in Sussex, Warren, and Hunterdon Counties. With the new St. Luke's Monroe campus, we have been linking families with the NFP of Monroe and Pike Counties. As a Network, we continue to examine our MCH programs and our partnerships with other community agencies to ensure we are addressing our population needs and align with the ever-changing face of health care.


**Prevention and Wellness:**
Although the primary purpose of our network-wide Adopt a School and Adolescent Career mentoring initiatives is to improve access to care and reduce disparities for the promotion of health equity, they also address this CHNA health priority to improve Child and Adolescent health.

## Maternal and Child Health Initiatives

Additionally, three specific MCH initiatives to improve child and adolescent health are:

***Nurse-Family Partnership*** (NFP) is an evidence-based nurse (RN) lead home visitation program for first-time low income mothers less than 28 weeks gestation.

During FY18, the VNA of St. Luke's NFP program served 385 total clients with a graduation rate of 44% at 24 months. Our NFP nurses conducted over 5,000 visits this year to support families to meet the NFP program goals. During FY2017-18 100% of the children served through NFP were fully immunized at 2 years of age, and 90% were

meeting appropriate developmental milestones. In our Mothers 77% who did not have a diploma on entry into the program completed High School or obtained a GED, and 62% of our Mothers were working upon graduation from the program.

***Parent Advocate in the Home*** (PATH) is a St. Luke's-developed evidence-leaning community health home visitation and care coordination program focused on children ages 0-3. The PATH program works with at-risk low income families in need of parenting education and support. FY18 the PATH program served 60 families with two nurses (LPN's) and conducted over 1,440 visits this year. At discharge 100% of children were connected to insurance and a medical home. At 2 years of age 99.6% of children served were fully immunized and were up to date with well child checks.

***Visiting Nurse Advocate for the County*** (VNAC) is an intensive intervention program that works with our County Children and Youth agencies to prevent future instances of abuse and to work with families to improve parenting skills, strengthen family bonds, and promote a safe healthy environment for the child. Our VNAC Nurses served 88 unduplicated clients this year between Lehigh and Northampton County. Of those discharged from the program we were able to improve the safety of the living environment in 93% of the families, improve the positive interaction between parent and child in 86% of families, increase parental knowledge of caregiving in 89% of families, and improve parent's follow-through and accountability with child(rens) medical issues in 88% of families.

**Breastfeeding and Baby & Me Program:** The MCH staff is working with our network to increase breastfeeding rates. MCH has representation on the Keystone 10 team (A PA Department of Health led initiative to implement evidence based practices, improve breastfeeding initiation and duration, and improve the health of mothers and babies). This team is currently working with the Bethlehem Health Bureau to develop a free home visitation breastfeeding program for mothers delivering at St. Luke's Bethlehem Campus. The MCH program has also been involved in the Baby and Me program developed by SLUHN. This program is committed to delivering personalized care that will help families to have quality birth experiences, support breastfeeding, and to recognize and deliver care that is tailored to the patient and not a "one size fits all" approach for maximized success.


**Care Transformation:**
St. Luke's Community Health programs, specifically in Maternal Child Health, have been implementing care coordination efforts for many years through our community facing home visitation programs. These programs incorporate assessments on social determinants of health, connecting patients to community resources, providing education, supporting self-management, evaluating patient's readiness for change, and coordinating with patients and providers to ensure follow-up and adherence in receiving preventative care. CHPM has been conducting supportive care coordination in various areas through Healthy Living Initiatives, Adopt-A-School (Mobile Health programs), HIV Clinic (Case Management programs), and through programs such as Integrative behavioral health models.

Vaccines are among the most cost-effective clinical preventive services we have. Yet 300 children in the United States die each year from vaccine-preventable diseases. Healthy People 2020 aims to have 80% of children up to date on vaccines. With the help of our nurses, our families enrolled in one of our home visitation programs are exceeding those goals. Our MCH home visitation programs assist in care coordination efforts by educating families on the importance of vaccines, linking them with providers and insurance, and holding them accountable with follow-up care.

The Mobile Health and Adopt a School Initiative is one of our primary community based initiatives addressing issues related to our CHNA goals of Improving Access to Care and Reducing Health Disparities; and Improving Child and Adolescent Health. Since 1994 St. Luke's University Health Network (SLUHN) has been providing medical, vision and dental care on our Mobile Vans. Our goal is to increase access to care for students who are uninsured, underinsured or who slip through the cracks in our health care system. Additionally, we have added integrated behavioral health services and nutrition counseling to our Mobile Health services. In FY18 we partnered with six school districts (Allentown, Bangor, Bethlehem, Panther Valley, Phillipsburg, and Quakertown) and brought services to 28 schools.


**Research & Partnerships:**

As we look to the next fiscal year, our goal is for all of the Maternal Child Health Programs to more fully integrate our care coordination efforts with SLUHN, community clinics and community organizations. Healthcare reform requires us to do a better job serving high risk populations who are more vulnerable to lapses in care and access to preventative interventions. Working more closely with our local clinics will help us to ensure we are meeting our population health goals for prevention and early detection. Additional focus will be directed to funding opportunities as they are extremely competitive and with the increasing incidence of chronic disease and obesity it becomes even more of a challenge to ensure that babies are being born healthy and on time. Through the use of evidenced-based screening tools; helping families get connected to medical homes, preventative medical and dental care; and educating them on parenting and positive discipline, and strengthening our family's protective factors we hope to improve the overall health and development of the children we serve. Intervening early and helping families get on the right track from birth will help us to creating lasting and sustainable positive health outcomes throughout the lifespan. With healthcare challenges going beyond just medical adherence we need to look more closely into the social determinants impacting these already at-risk families with maintain health and wellness. Our vision is a future where all children are healthy, families thrive, communities prosper, and the cycle of poverty is broken.

## *Improving Elder Health*

The 2016 CHNA cited America's Health Rankings, where we learned that Pennsylvania and New Jersey rank 25$^{th}$ and 26$^{th}$ respectively nationwide for elder health, placing them squarely in the middle of all of the states within the U.S. When looking at CHNA survey data, an alarming 83% of survey respondents who were 65 or older reported having a chronic disease compared to 53% of respondents who were less than 65 years of age. High BP (60%), Arthritis (40%), High Cholesterol (35%), and Diabetes (23%) were the top 4 chronic diseases reported among survey respondents age 65 or older. Additionally, 40% of survey respondents who were 65 or older reported having an annual income of less than $25,000. According to

America's Health Rankings, challenges faced by those who are 65 plus include the high prevalence of obesity, the lack of physical activity, and a low prevalence of high quality nursing homes nationally.

Our overarching goal is to improve the health and well-being of senior residents in our Network service area. We are approaching this goal by building capacity for community-wide approaches to addressing elder health needs in local communities served by SLUHN, which also includes supporting the United Way of the Greater Lehigh Valley's Alliance on Aging to collaborate with local agencies to promote the health and well-being of older adults. Additionally, we are working towards identifying existing Fall Prevention Initiatives and collaborating with other agencies to develop a community-wide comprehensive plan, as well as working with local agencies to develop networks for health and social service needs. Our approach will also focus on adopting strategies in support of the CDC's strategic plan to promote and preserve the health of older adults while addressing loneliness. We have started to do this by exploring opportunities for patient navigator models to be incorporated into community and health care settings to promote elder health, specifically with a focus on:

- Promotion of healthy lifestyle behaviors such as tobacco cessation and getting regular physical activity.
- Increased use of clinical preventive services.
- Addressing cognitive impairment.
- Addressing issues related to mental health.
- Providing education on planning for serious illness.

Additionally, from a population health perspective, there is momentum to explore the Age Friendly Community Model as developed by the World Health Organization (WHO) and adopted by American Association of Retired Persons (AARP).


**Prevention and Wellness:**

St. Luke's Quakertown, Monroe and Anderson Campuses continue to offer adults 65 and over a daily dinner meal.. Meals are prepared fresh daily and provide diners with healthy food choices at a special price. Each dinner meal includes an entrée, salad, side, vegetable, dessert and 12 oz. drink. Older Adult Meal participants are invited to eat, gather with friends and neighbors, link into Wi-Fi and enjoy meeting new people. Throughout the month, St. Luke's has guest speakers during the dinner hour. Participants are encouraged to bring friends and family to join in on the fun. This initiative is geared toward increasing social connectedness and decreasing levels of social isolation. Social connectedness is an important factor when addressing loneliness and has been shown to have many positive health benefits. This program was developed to improve social connectedness among elders in our communities.

In 2016, approximately 82% of admissions into the Emergency Department at SLUHN for people 65 years or older were related to falls with an average Length of Stay of 4.4 days. CHPM partnered with the Trauma Department to grow the Matter of Balance program with Lehigh University student volunteers and the Bethlehem Health Bureau to further the reach. A Matter of Balance (MOB) is an evidence-based, national injury prevention program aimed at reducing falls and the fear of falling in the geriatric population. The course was developed by the MaineHealth's Partnership for Healthy Aging and now has been implemented by St. Luke's University Health Network. It is an 8-week course – 2-hour class sessions held once a week for

8 weeks. The course focuses on low impact exercising/stretching and discussions related to the fear of falling and how to implement fall-reducing behaviors. Between 7/1/17 and 6/30/18, 15 classes have been held in Lehigh, Northampton and Carbon counties for a total of 194 participants. The average class size is 12 participants, and the average age of participants is 78 years. Participants report on average a 27% increase in self-efficacy and an 11% increase in exercise, while showing a 7% decrease in the concern of falling interfering with social activities. Additionally MOB was also conducted in the Miners campus service area and Quakertown campus service area. Both campuses average about 3-4 classes per year with approximately 10 participants in each class.

Fit for Life: People who are physically active generally live longer and have a lower risk for heart disease, stroke, type 2 diabetes, depression, some cancers, and obesity. It is important for seniors to maintain a physically active lifestyle as they age, and there are many programs that encourage activity. St. Luke's works with partners to create safe places for physical activity, enhance physical education, and physical activity in schools and communities to encourage our patients to become more physically active through programs such as Get Your Tail on the Trail, Walk with a Doc, and Bike Bethlehem. We have two programs that address the need for increased physical activity in our communities:

- Tail on the Trail – Since 2013, SLUHN and the Delaware & Lehigh National Heritage Corridor (D&L) have been encouraging community members to get out and get active walking, biking or running on local trails. Through a six month, 165 mile challenge and a winter 30 miles in 30 days challenge, participants log miles to earn incentives for being physically active through the Get Your Tail on the Trail (TOT) nationally recognized program. In 2017, we launched a new Get Your Tail on the Trail website that includes lifestyle factor tracking such as fruit and vegetable consumption so that we can begin gathering health outcome data.
- Walk with a Doc - St. Luke's University Health Network enrolled in the national Walk with a Doc program, a free walking program where you can join the network's physicians on a walk at locations around the region. Walk with a Doc is a great opportunity to interact with healthcare professionals while getting those crucial steps in. Walk with a Doc was started in Columbus, OH in 2005 by Dr. David Sabgir. The Pennsylvania Walk with a Doc program finished its another year with numerous monthly program walks and numerous special walks associated with events and by doctor request.


**Care Transformation:**

SLUHN has the following programs to support the goals set forth in the implementation plan to address growing demands for services in the elderly population in our campus communities.

The Nurses Improving Care for Health System Elders (NICHE) program: All St. Luke's hospitals, with the exception of those joining network in FY2018, are NICHE designated. Implementing the following programs to grow our NICHE program network-wide:

- Establish and maintain a core group of Senior Care Resource (SCR) RNS and Patient Care Assistants on every adult inpatient unit - over 100 SCRs enrolled and passionate about improving care for older adult patients
- Initiate a Senior Care volunteer program at each campus to provide frail hospitalized older adults with substantial socialization and individualized activities to reduce prevalence of loneliness, boredom, delirium, etc.

Established a Senior ER at St. Luke's University Hospital with primary goal of meeting the unique needs of older adults and reducing hospital admissions when needs can be met through comprehensive assessment, planning and support to provide a safe discharge to home from the emergency department.

Related network performance improvement teams, (not all inclusive):

- Early mobilization and decreasing deconditioning
- Reducing falls and falls with harm
- Reducing pressure injuries
- Prevention, early detection and treatment of delirium
- Improving medication reconciliation process
- Improving transitions of care
- Senior surgical services program to prevent complications in older adults - expanding program
- Pain management in older adults promoting alternative therapies to opioids and judicious use when necessary

Nursing research study in progress: Does listening to familiar music decrease agitated behaviors in hospitalized patients with dementia?

Center for Positive Aging: works to develop a positive environment for aging in our community for elders and their caregivers through programs, classes and tools designed by geriatric specialists. The Center for Positive Aging offers a number of assessments in addition to the caregiver support groups.

- The Senior Assessment – which can help diagnose and address problems so seniors and their caregivers can enjoy a longer and higher quality life. The senior assessment will assist the healthcare team identify the patient's physical, social and cognitive needs.
- Mindstreams - seniors may also opt to have a Mindstreams Cognitive Health Assessment, which is an advanced scientific computerized evaluation. Mindstreams tests evaluate memory, executive function, attention, information processing, visual spatial, motor skills, and verbal function. Results of the test enable physicians to assess cognitive deficits earlier in the disease state, before it has progressed too far, and begin an appropriate course of treatment. A full report is sent to the senior's family physician.

The St. Luke's Miners Diabetes Education Center expanded the Diabetes Self-Management Training (DSMT) from the Miners service area to include South Bethlehem's Hispanic Center of the Lehigh Valley (HCLV). Classes were offered in both English and Spanish. The expansion was due in part to St. Luke's receiving a PA Department of Health (PA DOH) Diabetes Outreach Grant. The purpose of the grant is to develop an alternative health care delivery model focusing on the social determinants of health to improve diabetic outcomes of patients attending the St. Luke's Southside Medical Center (SSMC). The PA DOH grant allowed for a team-based approach for diabetes care to include a patient navigator, an integrated behavioral health specialist, nutrition/diabetes educator and a community care coordinator. Additionally, cooking and exercise classes were offered to diabetic patients living in South Bethlehem in partnership with the HCLV and Northampton Community College. Furthermore, a partnership with the St. Luke's Physician Group facilitated diabetes screening/outreach events in South Bethlehem. This program is described in greater detail in the Fit For Life (Promoting Healthy Behaviors – Preventing Chronic Disease) implementation plan update.

The St. Luke's HOPE Center staff strives to meet the national vision by providing rapid HIV testing and prevention services, comprehensive primary and specialty care, case management and social support services, housing case management services and integrated behavioral health services to HIV+ or high-risk

individuals. This past year, services were funded by the U.S. Dept. of Health and Human Services through its Health Resources and Services Administration (HRSA) Ryan White grant program, AIDSNET, and the PA Dept. of Health.


**Research & Partnerships:**
Looking forward, the department of Community Health & Preventive Medicine received a grant from the United Way to understand issues around age-friendly communities as proposed by AARP and WHO using the 8 domains of livability. The data from these focus groups will allow us to better understand the needs of our seniors and develop systems/programs that take these needs into consideration.

We continue to work with the United Way, Alliance on Aging and Community based organizations such as the Hispanic Center of the Lehigh Valley to build collaborative partnerships to reach goals set forth for Elder Health within our communities.