Duke University Hospital

Community Health Needs Assessment and Implementation Plan

FY18 Progress Report

INTRODUCTION

In 1925, James B. Duke willed $4 Million to establish Duke University Hospital (DUH) and its medical and nursing schools. His goal: to improve health care in the Carolinas, then a poor rural region lacking in hospitals and health care providers. Duke Hospital has devoted itself to that goal ever since, making sure that people across the region are able to get the medical care they need regardless of their ability to pay. Duke is both the predominant health care provider in Durham and the county's largest employer. Part of a full-service tertiary and quaternary academic medical center, DUH is the largest hospital in Duke University Health System (DUHS). For the fiscal year ended June 30, 2018, DUHS provided $552 million in community benefit and community investment.

James P. Duke's vision laid the cornerstone for today's Duke Hospital and serves as a guide as DUH reinvests in supporting the greater community. DUH's commitment extends beyond the health care services provided in DUH facilities. DUH also benefits the community through highly regarded medical education programs and through the research conducted to discover new ways to treat illness and disease and to facilitate the translation of that research into population health improvement. Even beyond that, DUH reaches out and is an active partner with patients, neighborhoods, community organizations and governments in innovative efforts to improve to create innovative efforts to improve health and healthcare.

COMMUNITY HEALTH NEEDS ASSESSMENT

DUH collaborates with the Partnership for a Healthy Durham (the State Certified Healthy Carolinians Group) and the Durham County Health Department to conduct the Durham County Community Health Assessment and develops strategies to address identified needs. Faculty and staff of the Duke Division of Community Health and appointed members of the DUH Senior Leadership Team officially serve on Partnership for a Healthy Durham Committees.

The most recent assessment process conducted in calendar year 2014 compiled valid and reliable information about the health of Durham. It included 354 citizen surveys from randomly selected households and 8 community listening sessions with 205 community members. The Community Health Assessment Team – comprised of more than 89 members representing, Duke University Hospital and Duke Regional Hospital (formerly Durham Regional Hospital), universities, local government, schools, non-profit organizations and businesses – worked to direct the activities of the assessment and provide written content and expertise on issues of interest. The assessment identified six health priorities for 2015 – 2017:

1. Access to medical and dental care

2. Mental health and substance abuse
3. Obesity and chronic illness
4. HIV and sexually transmitted infections
5. Poverty
6. Education

The full Community Health Needs Assessment can be found on the DUHS website at:
http://corporate.dukemedicine.org/AboutUs/Community%20Health%20Needs%20Assessment
and on the Partnership for a Healthy Durham Website:
http://www.healthydurham.org/index.php?page=health_recent

All of the programs described in the following implementation plan are aligned with the six health priorities with many of the programs addressing combinations of the six health priorities. A brief excerpt from the Community Health Needs Assessment describing each priority is included in this implementation plan. DUH considers this document to be a "working plan" that will continue to evolve over this three year period in order to ensure the efficacy of strategies intended to meet expressed community health needs. This implementation plan does not contain descriptions of the community health improvement work carried out by other components of the larger Duke Health System or Duke University. This implementation plan only represents Duke Hospital's continually evolving activities and support to improve health with the Durham Community.

IMPLEMENTATION PLAN

Together, with its partners, DUH asks about and listens to concerns, explores barriers to care, analyzes healthcare utilization and costs, identifies partner needs and resources, plans/redesigns services, tracks outcomes, and shares accountability in order to develop effective programs to improve the health of the Durham community. As such this Implementation Plan includes new and long-standing programs.

1. Access to Medical and Dental Care Initiatives

Access to health care in a community refers to the ability of residents to find a consistent medical provider for their primary care needs, to find a specialty provider when needed and to be able to receive that care without encountering significant barriers. Although there are many medical providers, Durham County is particularly hampered by a lack of health insurance coverage (whether private or public, such as Medicaid) for many of its residents. In Durham County, 19% of adults less than 65 years are uninsured.

Project Access of Durham County (PADC) links eligible low-income, uninsured, Durham County residents to specialty medical care fully donated to the patients by the physicians, hospitals including DUH, labs, clinics and other providers participating in the PADC network. In FY15, PADC provided services to more than 1,000 patients.

Plans for FY16: Enroll and care manage at least 1,000 patients; Re-establish the Medical Director Committee to review and finalize outcome metrics; Continue care management assistance of medical respite program.

***Progress in FY16*:** PADC enrolled 1117 patients and expanded its Medical Respite program serving a dozen patients. In addition to exceeding those FY 16 goals, PADC improved operations by launching a digital enrollment system in the COACH web-based information and communication system.

Plans for FY17: Continue to function and serve its donated number of bundled services (2500/year). Make the necessary protocol and operational adjustments to the Medical Respite program to allow patients to stay more than 30 days while housing is being arranged.

Progress in FY17: PADC continued to meet service goals in FY17. Early evaluation results of the Medical Respite program demonstrated positive impacts for patients served including a: 37% reduction in inpatient admissions, 70% reduction in inpatient days, and 192% increase in outpatient visits. Benefits and services obtained for participants through the Medical Respite program included connections to primary care services, mental health and/or substance abuse services, and assistance in transitioning to stable housing.

Plans for FY18: Continue to work with PADC to provide low-income, uninsured Durham County residents to donated DUH specialty services and to assist in supporting the growth of medical respite.

Progress for FY18: PADC continued to meet service goals in FY18. In partnership with LATCH (described below), PADC provided Care Management services for 2,876 uninsured individuals.

Local Access to Coordinated Healthcare (LATCH) was initiated in 2002 with Healthy Communities Access Program (HCAP) funding from the US Health Resources and Services Administration (HRSA) to Duke's Division of Community Health, Department of Community and Family Medicine. The founding and sustaining LATCH Partnership includes DUH (which now provides the majority of operating funds), Lincoln Community Health Center, the Durham County Departments of Health and Social Services, El Centro Hispano, and a number of CBOs. Through community-based, linguistically and culturally-relevant care management, LATCH aims to improve health knowledge and self-care, access to health care and health services utilization outcomes among Durham County's uninsured. Care Management services include: health services coordination and navigation (medical, social, behavioral); post-hospitalization follow-up; patient education; chronic disease management; psycho-social support; access to benefits (Medicaid/SSI/SSDI); bills assistance; interpretation/translation; and, transportation coordination. In partnership with other community stakeholders—health care and social service providers, local government and community-based organizations—LATCH monitors health care trends, identifies barriers facing uninsured patients, and, working as a consortium, addresses and eliminates barriers. In FY15 LATCH provided more than 6.000 care management service encounters with patients. Pre- and Post- analysis of patients served by LATCH shows a 17% decrease in hospitalizations.

Plans for FY16: Reach out and enroll new refugee/immigrant populations arriving in Durham from numerous areas of the world, including East Asia, Middle East, East Africa, and Burma; Continue engagement with El Centro Hispano and the Latino Roundtable; Continue enrolling uninsured in the Health Insurance Exchange promoting the United Way "special discount" for Durham residents; Continue enrolling uninsured and underinsured in LATCH Case Management services.

***Progress in FY16*:** LATCH worked with the growing refugee community and the local offices of national refugee resettlement programs. LATCH continued to perform awareness outreach in the community to

encourage residents to enroll in the Health Insurance Exchange; and began assisting mothers with children ages 0 -2 in enrolling in Medicaid due to lapses in the NC Fast eligibility system.

Plans for FY17: Continue providing Medicaid and Charity care assistance, translation and interpretation services, expand Medical Respite with a daily census minimum of a dozen patients; and continue case management of uninsured and underinsured patients who have an ED encounter.

Progress in FY17: LATCH continued to perform awareness outreach in the community to encourage residents to enroll in the Health Insurance Exchange. LATCH participated in the Rides to Wellness initiative to address transportation barriers. LATCH provided Disability, Medicaid and Charity care assistance, translation and interpretation services, and continued case management of uninsured and underinsured patients who have an ED encounter. LATCH increased its own community outreach efforts, enrolling uninsured individuals in need of assistance at various churches and community events.

Plans for FY18: Continue providing Disability, Medicaid and Charity care assistance, translation and interpretation services. Continue the conversation with Lincoln Community Health Center to integrate LATCH staff with Lincoln's providers and their care coordination and case management teams. Continue the Rides to Wellness project with trainings for case managers; and continue case management of uninsured and underinsured patients who have an ED encounter.

Progress for FY18: LATCH continued to perform awareness outreach in the community reaching 6,120 uninsured individuals to encourage residents to enroll in the health insurance exchange and offer other LATCH supportive services. LATCH (SOAR) completed 205 referrals.

The Complex Child Program (CCP) provides the coordination of medical and co-management of medical care for children with multiple medically complex issues that require the interaction with multiple specialists. On average these children work with 13 specialists. Before the Complex Child Program, care could seem fragmented as patients/families had no central "quarterback" helping to oversee the big picture.

Through the CCP parents now have direct phone access to a complex care service (CCS) provider or RN 24/7. The CCP team works with parents to create a comprehensive "complex care plan" that is placed in the Child's medical record and given to the parents. In addition, the CCP team coordinates inpatient intensive care transitions prior to discharge and conducts intensive outpatient "between-visit" contacts (phone, clinic visits, and in some cases, home visits). In FY15, CCP served 22 children and their families.

Plans for FY16: Development of a complex care clinic and enroll 50 new children in the service

Progress in FY16**:** CCP is now named the Duke Children's Complex Care Service (CCS) and in FY 16, CCS established a longitudinal clinical follow up continuum that consists of the Complex Care Clinic, inpatient rounds, and direct communication with PCP, specialist and patient's guardian. The CCS provides 24/7 availability. In FY16 Duke Hospital funded 1.0 MD FTE (divided amongst 3 MDs); 1.0 RN clinician and 1.0 Program Coordinator (in collaboration with Duke-NPCC). In FY 16, CCS expanded to a statewide representation (with significant reach toward Central and Eastern NC). CCS has experienced a reduction in ED visits and substantial hospital stay reduction. The patient experience included home visits, concurrent and palliative care and family care conferences.

Plans for FY17: Plans include new patient services, a mobile app for complex care plans, telehealth, and program expansion with a target of serving 100 patients in FY17.

Progress in FY17: The program continues to work on FY17 plans.

Plans for FY18: Continue to refine the CCS and expand the service as needed. Include new patient services, a mobile app for complex care plans, telehealth, and program expansion with a target of serving 100 patients in FY18.

Progress for FY18: CCS continued to build infrastructure and develop additional resources for the children, families, and providers served by the program. The team worked with the families of 65 children to develop the mobile care plan to better support them.

Duke- Durham Foster Care Clinic Program is a highly effective partnership between Duke and Durham County. In September of 2013 the Duke Child Abuse and Neglect Medical Evaluation Clinic (CANMEC) partnered with Durham County Department of Social Services (DSS) to formalize a Foster Care Clinic. This clinic provides the Initial Screening and Comprehensive Health Assessment according to the AAP standards for children in foster care in Durham. Children receive a comprehensive medical evaluation including complete physical exam, medical record review as well as screening for dental, developmental, mental health, and social concerns. Unmet medical needs are identified and the clinic identifies a medical home; arranges medical, mental health, and social referrals; provides follow up care until a medical home is established; and supports social workers with navigating the complex health system

Children in Durham County foster care who have completed a comprehensive assessment at the Duke Foster Care Clinic are current on immunizations, are enrolled in a medical home, are referred for mental health treatment if needed, and are having their ongoing medical, developmental and social needs addressed. The Duke-Durham Foster Care Clinic serves all children in the Foster Care system in Durham County. Unfortunately, the need for this clinic continues to grow each year.

Plans for FY16: Enable DSS Social Worker to be able to contact Foster Parent(s) regarding upcoming medical appointments, and follow up with Foster Parent(s) in the event of a cancelation and to reschedule child for primary care and specialty visits; Assist CANMEC and PCP exchange medical and psych-social patient information; Provide PCP with a tool box for assessing at risk kids.

***Progress in FY16*:** The Durham Department of Social Services utilized Duke's clinical decision support and electronic alert system (COACH) to manage over 300 children's medical appointments. Through the use of COACHs' targeted messaging social service workers were able to receive advance notification of each child's medical appointment and assist the foster parent in getting to the appointment.

Plans for FY17: Establish a registry for ages 0 -2 to assist PCP and Foster parent in scheduling and attending well child visits and immunizations.

Progress in FY17: Continued to provide linkages for Durham County Department of Social Services to manage the health care services of children in the foster care system.

Plans for FY18: Continue the effective partnership with the Durham County Department of Social Services to serve children and families engaged in the foster care system.

Progress for FY18: Continued to provide linkages for Durham County Department of Social Services to manage healthcare services for children in the foster care system.

Southern High School Wellness Center provides comprehensive primary care and mental health services at Southern High School to students at the school and is open to all students and staff of Durham Public Schools. Operated by Duke's Division of Community Health on behalf of DUH, the Southern High School Wellness Center will celebrate its 20th anniversary in 2016. In FY15 the Southern High School Wellness Center had to scale back hours due to staffing issues, but still completed 188 patient visits.

Plans for FY16: Continue Primary care and mental health services; continue nutritional counseling; Enroll 520 new students. Add services for faculty and staff of the school and employees of Durham Public Schools.

Progress in FY16: The Southern High School Wellness Center celebrated its 20th anniversary in April of 2016. The Center continued to struggle with staffing issues in early FY16 but, continued to increase its enrollment and began outreach to serve school staff and employees of Durham Public Schools.

Plans for FY17: Secure full-time clinician and restore patient care schedule to five days a week. Roll out the SPARCS (Structured Psychotherapy for Adolescents Responding to Chronic Stress) Program to include additional groups and expand the program to serve Northern High School. Partner with the Durham County Department of Public Health to explore the feasibility of placing a Registered Dietician in the Clinic.

Progress in FY17: Expanded SPARCS program to Northern High school and developed plan to place a Durham County Department of Public Health Registered Dietician in the SHS Wellness Center to see clients. Key findings of the 2-year student satisfaction survey results show 62% of the respondents reported having no usual source of care outside of the SHS Wellness Center, 71% of the visits to the Center involved sick care or injury care, 14% said they would have not received care without the Center, 9% said they would have gone to the Emergency Department. The mean overall satisfaction with the Center was 4.9 out of a possible 5.

Plans for FY18: Continue to increase numbers of Durham Public Schools students, faculty and staff served by the SHS Wellness Center. Complete contract to secure the placement of a Durham County Department of Public Health Registered Dietician at the SHS Wellness Center.

Progress for FY18: Due to staffing issues, the hours of operation of the Southern High School Wellness Center were reduced and only 631 medical visits were completed. However, the center was able to add the services of a Registered Dietician from the Durham County Health Department and continues to offer SPARCS Group Therapy.

Durham Child Health Assessment and Prevention Program (CHAPP) was created to close gaps in access for children who have missed preventive visits. In addition, the program seeks to reconnect these children and their families to supportive medical homes.

Together, DUH through the Duke Division of Community Health, the Durham County Department of Public Health, and Durham Public Schools converted three DUH Elementary School Based Health Centers

and opened two additional ones utilizing Enhanced Role Registered Nurses (ERRNs) to deliver well-child care to children who are overdue for their well-child checkups. The five schools are in areas of the County that demonstrate significant gaps in pediatric care and the CHAPP clinics operate as satellites of the Durham County Department of Public Health. DUH continues to support mental health services at all five of the sites and provides medical back up.

Plans for FY16: FY16 will be the first full year of operation for CHAAP. It is anticipated that the program will reduce the cost of well-child visits while expanding access to physicians for complex acute and chronic needs by ensuring that both enhanced role nurses and primary care physicians are working at the top of their licenses. CHAPP evaluation metrics will include: number of well child care visits; number of children referred to a medical home; number of vaccinations administrated; number of dental, hearing, vision referrals; and financial inputs and outputs to determine fiscal efficacy, sustainability, and ideally, expansion opportunities.

***Progress in FY16*:** CHAAP was renamed Healthy Futures. In the fourth quarter of FY 16, Healthy Futures was fully staffed and operational. Three Enhanced Role Nurses staffed five Durham elementary school clinics and provided three hundred well child visits of which 50% of the children did not have a medical home prior to their Healthy Futures visit. Other notable results include:

- 57% of children received a vaccine during their visit and 90% of those vaccinations were a required vaccine to catch up to the age appropriate vaccine schedule
- 30% of clients said their main reason for contacting Healthy Futures was that they were unable to get an appointment with their pediatrician and 15% stated appointment wait time was too long
- Reason for referral: 33% Acute Concern, 29% Chronic Care, 14% Dental Concern, 10% Failed Vision Screen, 9% Behavioral Concern
- Reason for Chronic Care Referral: Obesity 20%, Blood Pressure 33%, Diabetes 7%, Asthma 7%

Plans for FY17: Continue outreach efforts to increase the number of children served.

Progress in FY17: Healthy Futures continued outreach efforts and provided well-child visits and connections to medical homes for children that did not have a consistent connection to a medical home.

Plans for FY18: Continue to assist in the evaluation of the Healthy Futures model.

Progress for FY18: The Durham County Department of Public Health decided to close the Healthy Futures clinics in the Spring of FY18 due to staffing and enrollment issues.

Just for Us (JFU) provides in-home care program for low-income, frail elderly and disabled. JFU was launched in 2002 as a collaboration of Duke, Lincoln Community Health Center, Durham Department of Social Services (DSS), the local area mental health entity, and the Durham Housing Authority. DUH provides the majority of ongoing support for the program. Through Just for Us, an interdisciplinary team of providers serves clients in their homes, providing medical care, management of chronic illnesses, and case management. Each participant receives a home visit every 5 weeks unless there is an acute episode or a hospital discharge, for which a visit is scheduled immediately. Visits include medication reconciliation, social issues, support services, chronic disease management, and post-hospital care. The health care team consists of a clinical provider (PA, NP or MD), occupational therapist, registered dietitian, social worker, phlebotomist, and community health worker. In FY15, Just for Us provided

transitioned to EPIC (electronic medical record system) and experienced the typical decrease in productivity associated with such transitions. In addition, Just for Us lost one of its team members causing a further reduction in the ability to provide services. In FY15 Just for Us completed 841 patient encounters.

Plans for FY16: Enroll 112 new patients; Expand geography of service to outside of the existing service sites buildings; Establish provider linkage and support to patients of the homeless shelter and the Duke CHF clinic.

***Progress in FY16*:** Continued Chronic Care and Transitional Care Home visits to disabled and low income patients; monthly enrollment averaged 275 patients and over 1200 encounters. Just for Us utilizes a co-management protocol with Durham primary care practices.

Plans for FY17: Expand this model by implementing a co-management protocol with Duke's Congestive Heart Failure clinic. Hire a full-time clinician and develop chronic care management and transitional care management protocols with the JFU Registered Nurse.

Progress in FY17: JFU experienced significant staffing shortfalls as recruiting and hiring a dedicated clinician took much longer than anticipated.

Plans for FY18: Fully staff JFU and resume efforts on growth strategies that were planned for FY17.

Progress for FY18: JFU experienced significant staffing shortfalls as recruiting and hiring a dedicated clinician took much longer than anticipated in FY17 and into FY18. During FY18, JFU was able to complete 460 visits with patients and continues to work on strategies to solidify staffing.

Neighborhood/Community Clinics: DUH in partnership with Lincoln Community Health Center collaboratively operates three community health clinics; the Lyon Park Community Clinic, the Walltown Neighborhood Clinic and the Holton Wellness Center. The clinics were designed to provide primary care, health education, and disease prevention to the underserved populations of Durham. The clinics provide medical care for persons with and without health insurance. Those without insurance are seen based on a sliding fee scale. No patient is denied care based on inability to pay for services. The Lyon Park Clinic was the first of the collaborative neighborhood clinics, opening its doors for patient care in April 2003. The Walltown Clinic opened in January 2005 and the Holton Clinic opened in August 2009. Each clinic received start-up funds through a Duke Endowment grant. Clinics generate revenue through a contract with Lincoln Community Health Center and receive significant support from DUH. The clinics operate as Family Medicine Practices and are 5 days a week. Staffing includes Physician Assistants, Nurse Practitioners and Family Physicians, who serve as supervising doctors. Each clinic is supported by nursing staff: Certified Nursing Assistants, Licensed Practical Nurses, or Certified Medical Assistants and a staff assistant. The staff assistant performs all administrative tasks for the clinic including answering incoming phone calls, registration, scheduling, etc. In FY2015, the community clinics transitioned to EPIC (electronic medical record system) and experienced the typical decrease in productivity associated with such transitions. In FY15, the clinics completed 11,000 patient visits.

Plans for FY16: Provide 15,000 patient encounters; Continue the Breast and Cervical Cancer Prevention Program for uninsured woman; Continue Health Department HIV/STD screening program; Continue evening clinic hours.

***Progress in FY16*:** The clinics experienced some staffing issues throughout FY16, but were able to provide primary care to 5,404 unique patients with 12,000 encounters. The community clinics continue to house a Durham Health Department HIV/STD screening program. In addition, a pediatric/adolescent clinic was launched at Holton and Lyon Park two days a week. The clinics transitioned the Breast and Cervical Cancer Control Program to Lincoln Community Health Center to streamline the service for patients.

Plans for FY17: Expand adolescent clinic and mental health services by providing 16,000 primary care visits; continue HIV/STD screening program and launch on-demand tele-Behavioral Health consult service with Lincoln Community Health Center.

Progress in FY17: The clinics continued to experience staffing shortfalls throughout FY17, but were able to conduct 12,078 primary care visits. The staffing shortfalls hampered planned efforts to expand clinic offerings.

Plans for FY18: Secure additional staffing for clinics and resume efforts to expand adolescent and mental health services. Return to full volume with increased staffing.

Progress for FY18: The clinics continued to experience staffing shortfalls throughout FY18, but were able to conduct 10,992 primary care visits. The staffing shortfalls hampered planned efforts to expand clinic offerings.

2. Mental Health and Substance Abuse Initiatives

An estimated 17,000 residents of Durham County need mental health treatment and 19,000 need substance use treatment.[i] Alcohol is the primary substance abused by Durham County residents seeking crisis detoxification services and by adolescents in Durham's middle and high schools.[ii] Respondents in the *Community Health Opinion Survey* identified addiction to alcohol, drugs or prescription pills as the number one community health problem. DUH has partnered with and supports a number of collaborative initiatives to improve access to mental health services and reduce substance abuse.

Project Lazarus, in conjunction with Community Care of North Carolina (CCNC) and DUH, seeks to reduce opioid-related overdoses; optimize treatment of chronic pain; and manage substance abuse issues related to opioids. The core components of the Project Lazarus model are: 1) Public Awareness, 2) Coalition Action, and 3) Data & Evaluation. Strategies of the model include: Community Education; Provider Education; Hospital ED Policies; Diversion Control; Pain Patient Support; Harm Reduction; Addiction Treatment. DUH is a key partner in supporting the following activities:

- *Community Coalitions:* Durham Crisis Collaborative; Partnership for a Healthy Durham Substance Use/ and Mental Health Committee and Durham Together for Resilient Youth.
- *Naloxone Outreach:* Pharmacies (Duke South, Clinic Pharmacy, Main Street, Gurley's, Josef's, & Duke Cancer Specialty); Durham County Department of Public Health; Durham Mobile Crisis Unit.

- *Provider Education:* Provider Toolkits and CME Education; Use of Pain Agreements; Use of Controlled Substance Reporting System (CSRS); Chronic Pain Provider Consultation Calls.

- *Diversion Control:* Permanent Drop Boxes in 5 of 6 counties (Durham, Franklin, Person, Granville, & Vance).

- *Chronic Pain Patient Support:* Chronic Pain Self-Management Workshops; Chronic Pain Management Resources; Key community presentations.

FY15 accomplishments include:

- **62** naloxone kits provided to pharmacies
- **7** clinics with providers prescribing naloxone
- **35** providers received CME training for Project Lazarus
- **6** monthly chronic pain telephone consultations for primary care providers held reaching **20** providers
- **20** patients received Chronic Disease Self-Management education (Stanford Model)
- **120** pharmacies received announcement for CME training opportunities
  ~50 providers received information on chronic pain resources and telephone consultation at NPCC bi-annual meeting session
- **180** provider educational handouts disseminated
- **70** referrals for chronic pain resources
- **60** patient reminder calls for DUH -DOC Pain Classes
- **5** patients to complete 8 week DUH - DOC Pain Class

Plans for FY16: Launch an integrated care assessment and screening program for Medicaid and uninsured adult patients in a Durham high volume adult clinic that screens for depression, anxiety, substance abuse and chronic trauma; Continue Project Lazarus and distribution of naloxone kits through PCPs, pharmacies, community partners and community Mental Health/substance Abuse providers; Continue Provider Education, Diversion Control, Community Coalitions and Chronic Pain Support.

***Progress in FY16*:**

- **Naloxone**
  Naloxone distribution efforts continue within the community and local pharmacies. In June 2016, the State Health Director signed a statewide standing order for naloxone dispensing. NC DHHS has set up a website where pharmacist and the public can access more information about the standing order. The website is www.naloxonesaves.org. Pharmacies can go to the website and sign on to dispense under statewide standing order. The Duke- NPCC Chronic Pain Coordinator worked with NPCC's Pharmacy Program Specialist to reach out to local pharmacies in the network. Approximately ninety five (95) pharmacies received the fax that included a copy of the standing order, a one-pager explaining the standing order for Medicaid Pharmacist and providers, and the chronic pain coordinator's contact information. Out of the 95 pharmacies **78** were listed in Durham. Duke- NPCC in partnership with the Substance Use/ Mental Health Subcommittee of the Partnership for a Healthy Durham will conduct outreach to the 78 pharmacies to assist them with registering on www.naloxonesaves.org.

- **Substance Use and Mental Health Committee (SUMH) of the Partnership for a Healthy Durham**
  In addition to working on Naloxone outreach to pharmacies, SUMH is also working on a provider resource manual to be in line with the Network of Care website resources as well as a user-friendly hard copy version to disseminate throughout the DUHS.

- **Project Lazarus** (PL) Kits continue to be disseminated in the community at local pharmacies. **To date approximately 60 kits provided to pharmacies upon request.** Numbers may vary going forward as a result of the statewide Naloxone standing order in place and local pharmacies dispensing FDA approved Nasal Narcan 4mg Intranasal spray.

- **Chronic Pain Self-Management (CPSMP) Workshops**
  The CPSMP Workshops continue to take place at Lincoln Community Health Center and continue to be successful. Nine **six week workshops were held in FY16, with approximately 130 people reached in the workshops.** In addition to the workshops, a CPSMP Leader Training was conducted October 2016. As a result of the training, six newly trained leaders will implement workshops under the Duke Northern Piedmont Community Care License. The Duke-NPCC Chronic Pain Coordinator will oversee the CPSMP leaders efforts and provide support and instruction on Stanford's Model for CPSMP.

- **Community Care of North Carolina Chronic Pain Initiative Task Force**
  Through the work of the CCNC Chronic Pain Initiative (CPI) Task Force (Duke), the Community Care of North Carolina Provider toolkit has been updated with more resources and tools. In addition, the Task Force is working on the development of a CME on Safe Opioid Prescribing for or providers to educate the on the latest guidelines from the NC Medical Board and the Centers for Disease Control and Preventions relating to opioid safety and chronic pain management.

- **Chronic Pain Telephone Consultations with Pain Specialist**
  Pain consults are continuing with outreach and awareness efforts to inform providers of this resource. To date there have been approximately 15 of 17 phone consults with 32 providers participating on the calls. PCPs, NPs, and Behavioral Health providers participate.

Plans for FY17:

In collaboration with the Partnership of a Healthy Durham's Substance Use and Mental Health Committee pharmacy outreach will be implemented in the community to increase awareness of the statewide Naloxone standing order as well as assistance with registering at www.naloxonesaves.org to participate under the standing order and for those who register will be offered signage to put up in their pharmacy to show that naloxone is available in that particular pharmacy. Work with the CPI Task will result in more resources being made available in the Provider Toolkit and a CME for providers to learn more about safe opioid prescribing. The Provider Toolkit will be made available online.

Chronic Pain Consult Calls will continue with expanded outreach to engage Behavioral Health providers who are treating chronic pain patients.

Progress in FY17: Coordinated and co-hosted a symposium for more than 150 providers on safe opioid prescribing with the North Carolina Medical Board and the Governor's Institute on Substance Abuse. Collaborated on the creation of the ***Mental Health and Substance Use Treatment Resources in Durham and Surrounding Counties Guide.*** Six hundred and fifty copies of the guide were provided to medical practices, hospital departments and community-based organizations. A web-based version of the guide will be made available in late FY18. Conducted five 6-week Chronic Pain Self-Management Courses (Stanford Model) at Lincoln Community Health Center. Continued Chronic Pain Consult Calls.

Plans for FY18: Continue activities (those conducted in FY16 and FY17 and others) that support the North Carolina Opioid Action Plan to reduce opioid addiction and overdose deaths.

Progress for FY18: Assisted in the organization and implementation of a Durham County Leadership Forum On Substance Abuse for more than 200 providers and community partners. As a result, the Durham County Commissioners developed a county-wide task force, and Duke provides leadership on a number of the task force committees including the Mental Health Treatment Committee. Six-week Chronic Pain Self-Management Courses (Stanford model) at Lincoln Community Health Center and monthly chronic pain calls for providers continued in FY18.

In addition, Duke worked with Alliance Behavioral Health, the Durham Crisis Collaborative, and the Duke-Margolis Center to host a full-day symposium with a keynote from the NC Attorney General on fostering collaboration in response to the opioid epidemic. More than 100 healthcare professionals took part in the symposium.

HomeBASE: is an integrated model of primary care and mental health delivered by a dually- trained PA and supported by in the DUH Outpatient Clinic (DOC). The goals of the program are to improve care and outcomes for DOC patients with co-morbid mental health conditions; encourage and enable patients to seek services at the DOC first and not the ED; reinvent a Care Team Model at DOC to increase patient-provider continuity, provider accountability for patient outcomes, use of best practice; and improve transitions of care from hospital and ED settings to clinic and home, particularly for high utilizer (HU) patients. During its last two pilot years, HomeBASE served 44 patients decreasing their Emergency Department use by 53% and their hospitalizations by 36%.

Plans for FY16: Continue enrollment of high risk patients with a goal of 100 care plans.

Progress in FY16**:** In FY 16 HomeBASE continued serving an extremely medically complex panel of Duke Medical Outpatient Clinic (DOC) patients serving over 150 with intensive complex care management. In the second half of FY 16 an Integrated Care Screening and brief counseling program was launched with 2 FTE Licensed Clinical Social Workers funded by Duke-NPCC. Every patient who screens positive on PHQ 9 (Depression screen) will now receive anxiety, substance abuse and trauma screens and counseling.

Plans for FY17: Plans for FY 17 are to continue HomeBASE, the DOC clinic wide behavioral health screening and add Peer to Peer Support to the Integrated Behavioral Health team.

Progress in FY17: In addition to continuing support for the HomeBASE program, DUH is now supporting an expansion (HomeBASE Plus) of clinic-based care management and increased walk-in capacity to provide on-site acute illness and other care for high-need patients with chronic illnesses who experience frequent exacerbations so that the clinic can serve as a capable and appropriate alternative to the ED for some of the most common presenting complaints.

Plans for FY18: Continue to support HomeBASE and HomeBASE Plus.

Progress for FY18: DUH continued to support HomeBASE and HomeBASE Plus.

DUHS Safe Opioid Task Force was created **t**o improve the safety of pain management by encouraging clinical practice standardization, where clinically appropriate, when opioid therapy is designated for treatment. The Opioid Safety Task Force provides recommendations for the initiation and management of opioid therapy across Duke University Health System (DUHS) to improve personal and community safety and reduce harm associated with the high risk treatments while engaging patients in their own care. DUH along with Duke Regional and Duke Raleigh Hospitals serves as a pivotal player in all aspects of the work of the Task Force. Over the last two years, all three hospitals engaged in the standardization of NC Medical Board Guidelines; helped to develop 12 smartphrases developed in EPIC; created 12 patient education videos ; and provided 35 advanced practitioners education on pain management & safe opioid prescribing.

Plans for FY16: Conduct provider education with every primary care, specialty care and hospital service unit adopting and practicing the policy; Operationalize system to track and monitor providers adherence to policy; Continue monthly provider learning collaborative with pain clinic.

Progress in FY16**:** The Opioid Task Force is continuing to update the intake and chronic pain follow up forms in Maestro and the Task Force liaisons are continuing outreach to clinics.

Plans for FY17: Develop an opioid note and Smartset as an additional option to existing flowsheets and as a method to eliminate duplicate documentation. Plan and pilot improvements to NCCSRS. Continue to provide outreach and offer technical assistance to clinics.

Progress in FY17: Worked with the NC Prescription Drug Monitoring Program leadership to integrate the substance abuse reporting system into Duke's EHR. Created and distributed routine electronic communications from hospital leadership, as well as an opioid safety newsletter that covers a range of topics from regulatory issues to how-to guides for interpreting a urine drug screen and locating patient education resources.

Plans for FY18: Continue to implement strategies to support providers in pain management and safe opioid prescribing. Continue to support the implementation of the NC Opioid Action Plan.

Progress for FY18: Continued to work with the NC Prescription Drug Monitoring Program leadership to integrate the substance abuse reporting system into Duke's Electronic Health; the creation and distribution of communications from hospital leadership; and the opioid safety newsletter. In addition, the task force assisted with assembling and disseminating 400 Naloxone kits for the North Carolina Harm Reduction Coalition.

3. Obesity and Chronic Illness Initiatives

Four of the 10 leading causes of death in North Carolina are related to obesity: heart disease, type 2 diabetes, stroke and some kinds of cancer. Overweight and obesity were the second leading causes of preventable death in North Carolina in 2010.[iii] Obesity rates continue to rise across all ages, genders and racial/ethnic groups in Durham County. The most recent combined obesity and overweight rates are: adults, 65%;[iv] Durham Public School high school students, 32%,[v] and entering kindergarteners, 19%.[vi] Diabetes is the 7th leading cause of death in Durham County and 8% of adults have diabetes.

Bull City Fit is a community-based wellness program and is part of the larger Duke Children's Healthy Lifestyles program. The Healthy Lifestyles program seeks to address weight-related health problems for children by offering caring providers, family-centered treatment programs, highly trained educators and researchers, and strong community partnerships. Bull City Fit helps in this effort by offering free evening and weekend activity sessions for the larger community. These sessions cover various themes that encourage and promote active living, such as fitness games, sport lessons, exercise routines, swimming, cooking, and gardening. Each activity is facilitated with the support of energetic staff and volunteers to create a positive and fun environment for all.

Bull City Fit empowers the whole family to increase knowledge and practice of physical activity and healthy eating; address current weight-related illness and prevent chronic disease through increased activity levels; improve quality of life by promoting healthy behaviors; increase confidence, support positive change, and build a lifelong commitment to a healthy lifestyle.

Partners include: Durham Parks and Recreation; Durham City Government; Durham County Department of Public Health; East Durham Children's Initiative; Lincoln Community Health Center; Community Nutrition Partnership; Veggie Van; Blue Pointe Yoga; Durham Public Schools; Partnership for a Healthy Durham; Duke Service Learning; Duke Family Medicine; Duke Children's Hospital and the UNC School of Social Work

DUH also supports initiatives through the Neighborhood Clinics, School-Based Health Centers, Just for Us and the Duke Outpatient Clinic (all described earlier in this document) that target chronic illness.

Plans for FY16: Continue to collaborate and look for opportunities to expand the programs.

Progress in FY16**:** Identified increasing rates of Non Alcoholic Fatty Liver Disease due primarily to an increase in– obesity, sugary diet, sedentary lifestyle.

Plans for FY17: Organize and launch a Durham-Wide education campaign to inform community of NAFL disease and its long term health repercussions. Continue to expand the Bull City Fit Program.

Progress in FY17: Bull City Fit continued to grow as an integrated model of child obesity treatment, leveraging the strengths of Duke's high-quality health care and Durham's extensive parks system and recreation centers. Key support for the program is provided by the Duke Endowment, the Durham Department of Parks and Recreation, the Department of Pediatrics, the Duke Clinical Research Institute, and the Duke Center for Childhood Obesity Research.

Preliminary evaluation data has shown high levels of engagement with racially-diverse and low-income families, and a recently published prospective trial has demonstrated improvements in child physical activity, fitness, and quality of life. Bull City Fit has two ongoing studies funded by the Duke Endowment and American Heart Association to test implementation and outcomes effectiveness.

Plans for FY18: Continue to grow the Bull City Fit Program and continue to test implementation and outcomes effectiveness.

Progress for FY18: Bull City Fit continued to grow as an integrated model of child obesity treatment, leveraging the strengths of Duke's high-quality health care and Durham's extensive parks and recreation centers. In 2018, Bull City Fit began planning for expansion to additional sites in Durham and anticipates launching the additional opportunities in 2019.

4. HIV and Sexually Transmitted Infections

Sexually transmitted infections may lead to premature death and disability and can result in significant health care costs. Chlamydia, gonorrhea, and syphilis are the three most common STIs in North Carolina and Durham County. Although HIV is not as common, Durham ranks fourth highest in North Carolina, with an average rate of HIV disease (29.9 per 100,000) well above the state rate (16.4 per 100,000).

While DUH through the programs described in this document supports mechanisms to address HIV and Sexually Transmitted Infections, it does not include specific strategies in this plan to address the rate of HIV and sexually transmitted infections, because considerable work is already being done through organizations within the community. Through the Partnership for a Healthy Durham, the HIV/STI Advisory Council brings together community members and agencies to focus on strategies to prevent the spread of syphilis and HIV/AIDS. In addition, Lincoln Community Health Center operates an Early Intervention Clinic for patients with HIV/AIDS at the Durham County Health Department.

Plans for FY16: DUH will continue to partner with the many organizations working on addressing HIV and Sexually Transmitted Infections. DUH will also be key partner in the soon to launch Durham Knows public health campaign designed to increase routine HIV testing; increase early diagnosis of HIV-infected persons and enhance linkages to care for individuals who are HIV positive.

***Progress in FY16*:** DUH continued to work with the many organizations working on addressing HIV and Sexually Transmitted Infections and introduced HIV screening into the Community Clinics as noted earlier in this document.

Plans for FY17: Continue HIV screening in the Community Clinics and continue to support the efforts of the Durham Knows campaign.

Progress in FY17: DUH, through the Duke Division of Community Health, continued to support the Community Clinics and the efforts of the Durham Knows campaign.

Plans for FY18: Continue the support provided in FY17.

Progress for FY18: DUH, through the Duke Division of Community Health, continued to support the Community Clinics and the efforts of the Durham Knows campaign.

5. Poverty

People with higher incomes, more years of education, and a healthy and safe environment to live in have better health outcomes and generally have longer life expectancies. In Durham County, 16.6% of individuals live in poverty. Female single-parent families are disproportionately at risk for poverty than married couple families (41.5% to 8.7%) and 40.6% of female single-parent families with related children under 18 years are living in poverty.[vii] Nearly one-half of Durham's renters are paying 30% or more of their income for housing.

Durham's Bull City Connector Is a fare-free Connector Bus Service that continuously loops through stops from Downtown Durham all the way to the Duke Hospital, Duke Clinics, and Duke Eye Center campuses. On average, Bull City Connector buses accumulate 1,500 riders every weekday and complete their loops in 17 minute intervals. Safe and effective transportation is a key correlate in health and economic well-being. The Bull City Connector has proven to be an asset for Duke employees, students, and patients.

Plans for FY16: Continue to support the Bull City Connector and help to increase ridership.

SSI/SSDI Outreach, Access and Recovery (SOAR): helps patients who are chronically homeless, or at risk of homelessness access health insurance, a stable income, and medical care by assisting these individuals in applying for Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI). The homeless population and those reentering the community from an institution face numerous challenges in accessing services. Approval on initial SSI and SSDI applications for these at-risk populations, who have no one to assist, is about 10-15 percent. For those with mental illness, substance abuse issues, and/or co-cognitive impairment, the application process is even more difficult. Even with assistance, the application process can take up to six months. Through SOAR, these individuals with complex needs are provided case management for home, hospital, and clinic visits; provided with a step by step explanation and completion of all applications for federal disability benefits; receive expedited applications for monthly income and Medicaid/Medicare; and linked to community resources. DUH currently funds two SOAR Case Managers who have successfully helped more than 100 patients in the last 3 years.

Plans for FY16: Continue and expand the SOAR Program

Progress in FY16**:** 152 individuals were enrolled in SSI/SSDI Outreach, Access and Recovery SOAR. LATCH Rural Health was added as a grant funded program which expanded the Durham SOAR program and assisted in completing SOAR applications for residents in Tier-1 counties surrounding Durham.

Plans for FY17: Continue SOAR Program

Progress in FY17: 264 individuals were enrolled in the SOAR program and screened for eligibility. The team maintained a waitlist list averaging around 60 individuals who would most likely meet federal disability criteria and thus eligible for DUH SOAR services. The two person team averaged 5 applications

per month and maintained a 90% approval rate for the year which exceeds the statewide SOAR approval rate of 79%.

Plans for FY18: Continue SOAR Program. Seek additional funding opportunities in order to meet demand for those deemed eligible for DUH SOAR services.

Progress for FY18: 205 individuals were enrolled in the SOAR program and screened for eligibility. The SOAR team maintained a 90% approval rate for the year which exceeds the statewide SOAR approval rate of 79%.

Benefits Enrollment Counseling (BEC). In FY 16 the Division of Community Health launched the Benefits Enrollment Counseling Program (BEC) with grant funding through the National Council on Aging to help seniors and those with disabilities and a limited income, find and enroll in all the benefits programs for which they are eligible. The goal of the service is to enable older adults to enjoy life and live independently in their homes and communities for as long as possible. For those with limited income and resources, additional support can be critical in maintaining their health and avoiding costly hospitalizations. The benefits provide clients served with access to healthy food, needed medical care and prescriptions, as well as other supportive services. The benefits also provide a community economic stimulus, as benefits are spent locally in pharmacies, grocery stores, utility companies, and health care providers. To increase the reach of the program beyond grant funding, BEC staff train volunteers (from partner community based organizations and Duke) to assist clients in Durham, Granville and Person Counties.

Progress in FY17: BEC screened 1,340 individuals. 1,199 of those individuals were eligible to receive assistance from BEC to find and apply to supportive benefits programs. BEC assisted these individuals in completing 4,773 benefit applications.

Plans for FY18: Continue to expand the BEC program by recruiting, training, and placing BEC volunteers in additional community sites.

Progress for FY18: BEC screened 888 individuals, 720 were eligible to receive assistance from BEC to find and apply for supportive benefits programs. BEC assisted these individuals in completing 3,642 benefit applications. The value of the benefits for the qualifying individuals is estimated to total $8,620,362.

Durham Medical Respite Program is pilot program for homeless patients that emanated out of the work of PADC (noted earlier in this plan) in 2014. The Medical Respite Pilot Program operates 24/7 and provides participants with clean and safe housing which will meet the standards that hospitals use when planning for discharge to home. Depending on participant needs and demographics, potential sites include transitional housing (Just a Clean House), motels, or Healing with CAARE, Inc. per diem housing. Room and board is funded by Durham County Department of Public Health through a contract with Project Access of Durham County (PADC), along with private donations. As the program becomes fully operational, each program participant will work with a transitional nurse care manager (provided by

Duke's Division of Community Health) to maximize their health and connect with appropriate community resources and services.

Plans for FY16: Achieve full operational status for the program and continue to collaborate on potential expansion opportunities***.***

Progress in FY16**:** The program received a grant from the Hillman Foundation to cover the cost of an RN care manager and Community Health Workers. The program served 29 patients in FY16. Prior to Medical respite 10 lived in shelters and 13 were unsheltered and post-Medical respite 9 received transitional housing. Seventy Five percent of referrals originated from Duke Hospital, Duke Regional Hospital and Duke Outpatient Clinic.

Plans for FY17: Continue the program and expand referral sources.

Progress in FY17: Early evaluation results of the Medical Respite program demonstrated positive impacts for patients served including a: 37% reduction in inpatient admissions, 70% reduction in inpatient days, and 192% increase in outpatient visits. Benefits and services obtained for participants through the Medical Respite program included connections to primary care services, mental health and/or substance abuse services, and assistance in transitioning to stable housing.

Plans for FY18: Continue to assist in the growth of the program.

Progress for FY18: The Medical Respite program continued.

6. Education

Quality child care and early education predict a child's future success and the academic success of young adults is strongly linked with their health throughout their lifetime. The importance of a high school diploma and higher education cannot be overstated. College graduates age 25 and over earn nearly twice as much as workers who only have a high school diploma. The unemployment rate for workers who dropped out of high school is nearly four times the rate for college graduates.[viii] In Durham County, the four-year high school graduation rate is 79.6% compared to North Carolina's rate of 82.5%. The overall 4-year cohort graduation rate has increased by nearly 10% since 2010-11, but there is still a disparity in the percentages of White versus minority students who are graduating from high school. For example, 84.7% of Whites graduated in 2011-2012 compared to 74.7% of Blacks and 73% of Hispanic students

Learning Together provides training and opportunities for Duke students (learners) to participate in health-related community service activities. Service opportunities may include providing health education to elementary school children, helping frail seniors complete the application process for Food Stamps, and conducting workshops to teach patients how to effectively communicate with their doctor. Through Learning Together, learners work with a variety of populations, experience the interdisciplinary nature of community work, and develop competence for working with diverse communities and cultures. Learners who participate gain skills they can use to work effectively with any community. In

FY15 Learning Together trained 126 Duke learners who in turn volunteered for community services activities which provided assistance for 300 adults and 1,125 children.

Plans for FY16: Continue to operate the Learning Together Program with a special focus on partnering with Durham Public Schools and other education and health and human services entities***.***

Progress in FY16**:** The Learning Together Program trained 92 Duke learners who in turn volunteered for community services activities which provided assistance for 350 adults and 1200 children.

Plans for FY17: Continue the successful service-leaning partnerships with Durham Public Schools and other education and health and human service entities.

Progress in FY17: The Learning Together Program prepared and/or trained 158 Duke learners who in turn volunteered for community service activities, providing health education for 400 adults and 1200 children. Additionally, Learning Together staff conducted 10 vocational/personal growth sessions for Duke interns and facilitated a total of 43 psychoeducational groups (Self-esteem, Stress Management, and Communicating with Confidence) for approximately 381 underserved elementary and middle school children throughout the Durham community.

Plans for FY18: Continue the successful service-leaning partnerships with Durham Public Schools and other education and health and human service entities.

Progress for FY18: The Learning Together Program prepared and/or trained 275 Duke learners who in turn volunteered for community service activities, providing health education for 400 adults and 1200 children. Additionally, Learning Together staff conducted 10 vocational/personal growth sessions for Duke interns and facilitated a total of 52 psychoeducational groups (Self-esteem, Stress Management, and Communicating with Confidence) for approximately 242 underserved elementary and middle school children throughout the Durham community.