Nursing

The Tri-County Health Department (TCHD) Nursing Division provides a range of prevention, home-based, clinical, and community outreach/engagement programs. While many are directed at populations that are at risk for poor health outcomes due to poverty, age, poor access to health care, and behavioral health issues, taken together, our preventative and health promotion activities impact the health of the entire community. Health is not just the absence of disease but also a state of complete physical, mental and social well-being. Our programs work to improve health at the individual level, family, community and population levels.

Prevention Services

Pregnancy Related Depression

The Title V Maternal Child Health (MCH) Block Grant priority areas, Pregnancy-Related Depression and Substance Misuse Among Pregnant and Postpartum Women work to increase the number of women seeking treatment services for perinatal mental health disorders and to decrease the percent of women hospitalized for prescription drug overdose. These activities support TCHD’s Strategic Plan Goals 6 and 9. Key activities include data monitoring and engaging community stakeholders to increase awareness and leverage community-based strategies that impact pregnant and postpartum women and families. In 2017, staff collaborated with local agencies and the Colorado Department of Public Health and Environment (CDPHE) to trans-create the 2016 successful pregnancy-related depression and anxiety campaign for Spanish speaking women and families.

Reducing Health Disparities for African American Families

The Title V MCH Block Grant Infant Mortality Reduction Project seeks to improve birth outcomes and decrease health disparities in African American families. Staff engages in Collective Impact initiatives and local networks to build resources and support community education that strives to decrease the infant mortality rate among African Americans. This project supports Strategic Plan Goal 3 by increasing partnerships in the African American community and encouraging policies that encourage family friendly practices both within TCHD and in the local business community.

HCP – Care Coordination for Children and Youth

HCP, an MCH program for children and youth with special health care needs, provides Care Coordination for children with special needs – children who go to the doctor more than most children their age. Essentially, Nursing supports families by giving them the skills and resources to reach their goals, as they become strong advocates for their children. Public health professionals provide TCHD’s services and they work with children from birth to 21 years of age who live in Adams, Arapahoe and Douglas counties. Anyone can refer and there is no charge.

In 2017, HCP provided care coordination for 268 families of children and youth with special health care needs. HCP also provided information and/or resources to 160 family members or community members. At the end of the year, the team began a QI project that included process mapping in order to better define the program tasks and goals to present a clearer picture of HCP to community partners. During the last five years, from 2013 to 2017, referrals have more than doubled from 157 to 335 per year through outreach efforts. The percentage of clients enrolled from referrals has ranged from 38% to 57%. Information is provided to all families who are contacted, even if they decline ongoing care coordination.
Early Childhood Developmental Screening and Referral

This MCH program works with community partners to coordinate an efficient developmental monitoring, screening, referral, and evaluation system to ensure that children across our three counties are connected to the services they need. Staff work to connect children and families to additional services and resources, such as primary care/providers, mental health services, dental providers, parenting classes, and other family support services. Key activities include convening community stakeholder groups to work toward improving the early childhood system, and identifying and prioritizing community-level challenges to create actionable solutions to address barriers.

Medical Home

The MCH Medical Home Priority work focuses on identifying and implementing policy and systems change to improve children’s access to a medical home. This work has included convening/facilitating Team 4C (Colorado Care Coordination Collaborative) to maximize the effectiveness and efficiency of care coordination services provided by Colorado Access, our Regional Care Collaborative Organization (RCCO) and HCP for Children and Youth with Special Health Care Needs (CYSHCN), birth to age 21, enrolled in Medicaid.

Collaboration with Colorado Access by MCH staff is helping the agency support Strategic Plan Goal 7. MCH staff work with Colorado Access to provide access care coordination services for CYSHCN, and to identify and implement strategies to improve access. The medical home screening and referral work with Immunizations and Healthy Communities is also working to improve health access of children and their families by screening them in Immunization clinics and then connecting them to Healthy Communities to improve access.

The Community Health Team (CHT)

CHT provides education classes with trained professionals to help prevent diabetes, manage diabetes, and manage high blood pressure. Our goal is to reduce cardiovascular disease and related risk factors and supports the focus of Strategic Plan Goal 5. The CHT team consists of Registered Nurses, Registered Dietitians, Pharmacist and Behavioral Health professionals.

In 2017, the CHT received 294 referrals for diabetes education and 116 clients received education, with clients averaging a 5% weight loss and a 0.5% decrease in Hemoglobin A1c (average level of blood sugar over the past 2 to 3 months). The CHT received 187 referrals for blood pressure education and 73 clients participated in education, 32 of whom lowered their blood pressure and 38 of whom maintained their blood pressure consistently under 140/90.

The Diabetes Prevention Program received 224 referrals and engaged with 109 clients to provide diabetes prevention education in a yearlong series of classes to promote weight loss and physical activity. Eighty-six of the CHT clients received Medication Therapy Management services to assist with medication adherence, blood pressure and blood sugar control along with identifying any medication discrepancies. Collaborating Behavioral Health Professionals were able to offer services to 55 CHT clients in 2017, providing short-term solution-based therapy along with referrals to long-term therapy as indicated.
Nurse Home Visiting Programs

Nurse-Family Partnership

Nurse-Family Partnership empowers first-time moms to transform their lives and create better futures for themselves and their babies. Over more than three decades, research consistently has proven that the Nurse-Family Partnership succeeds at its most important goals: keeping children healthy and safe, and improving the lives of moms and babies.

Nurse-Family Partnership works by having specially trained nurses regularly visit young, first time moms-to-be, starting early in the pregnancy, and continuing through the child’s second birthday.

The expectant mothers benefit by getting the care and support they need to have a healthy pregnancy. At the same time, new mothers develop a close relationship with a nurse who becomes a trusted resource they can rely on for advice on everything from safely caring for their child to taking steps to provide a stable, secure future for them both. Through the partnership, the nurse provides new mothers with the confidence and the tools they need not only to assure a healthy start for their babies, but also to envision a life of stability and opportunities for success for both mother and child.

In 2017, TCHD NFP:
- Received 3,320 referrals
- Completed 7,994 home visits
- Served 791 clients.
- Helped 187 clients who graduated from the program
- Funded caseload= 548

Quality Improvement Efforts:

Several projects were conducted to address improving referral systems, client retention, subsequent pregnancies, caseload building and nurse retention.

Child Fatality Review Team

Beginning in early 2015 TCHD was required to establish local multi-disciplinary Child Fatality Review Teams (CFRT) as part of the Child Fatality Prevention Act (Article 20.5 of Title 25, Colorado Revised Statutes, CFRTs are responsible for collecting data and conducting individual, case related reviews of deaths that occur in children under the age of 18. Review teams bring together human services, local law enforcement, hospitals, coroner’s offices, school districts, district attorney offices, and public health agencies to understand how and why the death has occurred in order to identify risk factors and prevention opportunities in a systematic way. Data concerning individual cases and prevention recommendations are entered into the National Center for Child Death Review Case Reporting System to help translate review findings into policy and prevention initiatives at the national level.

In 2017, TCHD reviewed 75 child deaths during Adams, Arapahoe and Douglas County CFRT meetings. The leading causes of death in TCHD counties reflect state data and include unintentional injury, undetermined causes such as sleep related deaths, homicide and suicide. Local teams continue to provide insight and expertise that drive prevention policy to reduce child deaths in Colorado.
**Clinical Services**

**Immunization Program**

TCHD’s Immunizations Program provides vaccines to protect against life-threatening and debilitating diseases to clients of all ages. Services are available in the Aurora, Castle Rock, Englewood, Lone Tree, and Westminster offices, as well as various community locations. A Saturday clinic is available each month to help increase access to immunization services for clients who cannot leave work during weekday hours. Staff have set aside specific times each week to offer a Refugee clinic in the Aurora East office, to accommodate refugees who are applying for green cards and require immunization services.

TCHD’s Immunization program staff also identify and contact families of children 0-36 months of age who are not fully immunized using phone calls and post cards. TCHD encourages families to see their healthcare provider or come to TCHD for needed immunizations. For uninsured or underinsured children and adults, TCHD charges a fee of $21 per immunization that is waived for families who are unable to pay; partial fees are accepted and TCHD can now bill most major Colorado insurance companies for immunizations.

Currently the Immunization (IZ) program is supporting Strategic Plan Goal #1 by using wireless computers, printers, and internet to connect with Colorado Immunization Information System (CIIS) and TCHD’s Electronic Health Record (EHR) system while offering immunization clinics in the community. This allows staff to offer the full range of TCHD’s immunization services, no matter where the location is (in a school, in a shopping mall, in a parking lot as part of a health fair etc.).

The IZ program is also working towards Strategic Plan Goal #7 by offering more off-site clinics in the community where patients and their families are likely to frequent. Examples are schools, shopping malls, parking lots, and health fairs. By offering more off-site clinics, TCHD is removing transportation and access to care barriers by bringing needed services to the community rather than completely relying on the community to come to a TCHD office.

**Table 1. Total Number of Immunizations Given in Immunization Clinics to Children and Adults, TCHD, 2013-2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Immunizations</td>
<td>28,769</td>
<td>25,166</td>
<td>25,279</td>
<td>22,381</td>
<td>23,080</td>
</tr>
</tbody>
</table>

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**Nurse Support Program**

The Nurse Support Programs at TCHD, in partnership with Adams and Arapahoe County Human Services, offer nursing services, support, and care coordination to encourage healthy social, physical, and emotional development for high-risk families and adults. Staff provides comprehensive assessments of individuals and families and identifies strengths, and offers education and community resources to families at risk for, or are experiencing traumatic events.

In 2017, the Nurse Support Programs received 2,233 referrals and completed 2,095 home visits across the two counties. The Nurse Support Programs utilize the Omaha System of Documentation to demonstrate positive impact. The Omaha System is a key to practice, documentation and information management, which allows nurses to create care plans and measure client progress through their documentation. Data collected in 2017 demonstrated that Nurse Support interventions produced measurable client progress in many problem categories including mental health, substance use and caretaking/parenting.
Call Center Program

The TCHD Call Center is staffed by the TCHD Immunization Program clerical support staff, but covers several programs in the Nursing Division. The call center allows clients to call one phone number and either wait in a short call queue or leave a message, and receive information or make an appointment for Immunizations, Family Planning, and Medicaid programs at all TCHD locations. The call center staff are highly trained in program specific guidelines and procedures when answering client questions or determining program eligibility and provide referral options for services TCHD does offer.

AT&T Language Line Services are used to communicate with clients who are non-English or non-Spanish speaking, primarily Vietnamese, Russian and Arabic languages. The call center received 23,086 calls in 2017. The Call Center program supports Strategic Plan Goal #7 by informing clients who call for one service that they may qualify for other services. The Call Center staff are very knowledgeable about changes in other programs and are the front-line in offering all services to the community.

Child Care Center Audit Program

The Child Care Center (CCC) Immunization Audit Program is an interdisciplinary program with Nursing and Environmental Health (EH). EH Inspections focus on proper sanitation, hand washing, and safe food preparation, while nurses assess the CCC’s ability to track immunization records, report immunization information and rates to CDPHE, and help provide technical assistance with accessing the Colorado Immunization Information System (CIIS).

As part of Strategic Plan Goal #3, during the past year, TCHD has helped CCC’s transition to reporting their own immunization data directly to CDPHE, to provide more timely and efficient means of communicating their immunization rates. TCHD has also transitioned to a model that provides technical assistance to the CCC’s when reporting this information, allowing our nurses to focus on educating CCC’s on state statutes that require this information reporting, and to focus on the CCC’s that need extra assistance with managing, accessing, and reporting their data.
Quality Improvement Efforts:

The transition of work in moving away from individual record assessment at CCC’s and toward more programmatic efficiency, has allowed staff to stop billing CCC for nursing immunization audits, which were very time-consuming, and move towards technical assistance and CCC staff education, improving program efficiency and effectiveness.

Table 2. Number of Centers, Children Assessed, and Centers Requiring Repeat Visits, TCHD, 2013-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Centers Assessed</th>
<th>Immunization Records Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>179</td>
<td>12,372</td>
</tr>
<tr>
<td>2014</td>
<td>185</td>
<td>13,692</td>
</tr>
<tr>
<td>2015</td>
<td>204</td>
<td>14,996</td>
</tr>
<tr>
<td>2016</td>
<td>188</td>
<td>7,634</td>
</tr>
<tr>
<td>2017</td>
<td>206</td>
<td>3,488</td>
</tr>
</tbody>
</table>

Sexual Health/Family Planning Program

One of the greatest public health contributions toward building and maintaining a healthy community is the provision of adequate sexual health/family planning/contraceptive services.

The TCHD Sexual Health/Family Planning Program assists individuals and couples with preconception, birth planning and spacing, and help avert unintended pregnancies thus contributing to positive birth outcomes and improved health for women and infants. This program also provides cervical cancer screenings, STI screenings and treatments and helps to educate thousands of young adults about sexual health each year.

This Program serves primarily underserved communities (95% of clients have incomes at or below 250% of the federal poverty level) and helps work toward the achievement of health equity, elimination of disparities, and improvement of health outcomes.

- In 2017, 11,012 client visits were completed within six clinics
- Analyses were conducted to assess remaining “hot spots” in teen pregnancy despite overall dramatic reductions in our three counties and to determine how best to reach sexually active teens in need of effective contraception
- To enhance education and build awareness of services, TCHD nurses provided sexual health presentations in local high schools that reached over 2,269 students and also developed communication campaign materials in collaboration with an educational partner, BeforePlay
- In 2017, 768 Long-acting reversible contraceptives were placed for clients, an 11% increase from 2016

Quality Improvement Efforts:

In 2017 the program increased Chlamydia/Gonorrhea screening rates for clients 24 and younger from 68% (2016) to 78%. 
HIV/STI Prevention Program

HIV/STI Prevention Program provides HIV/STI testing services in several TCHD locations. In 2017, the program served 819 clients including HIV testing (545 screened), Hepatitis C testing (68 screened), and Chlamydia and Gonorrhea testing (747 screened) at our five clinic locations and outreach events. The PrEP screening and referral service was adopted to increase HIV prophylaxis treatment awareness and utilization among high-risk individuals. The HIV Linkage to Care Program received 118 referrals and opened 25 cases.

A related program, the Aurora Syringe Access Program celebrated its one-year anniversary in October 2017, and during 2017, served 220 unique participants, distributed 37,967 sterile syringes, collected 31,773 used syringes, and provided 136 Naloxone kits for overdose prevention. Notably, almost 20% of clients receiving Naloxone reported using it to reverse an overdose, likely preventing a fatality, and the 80% syringe collection rate is among the highest of all Syringe Access Programs.

TCHD also expanded harm reduction outreach activities including overdose prevention education this year outside of Aurora in Southwest Adams County, Commerce City, and Englewood.

Senior Dental Program

The Arapahoe County Senior Dental Program provides low-cost dental care for Arapahoe County residents who are 55 and older, who qualify financially and do not have insurance coverage for dental care. Since Medicare has no dental benefit this important prevention program fills an important gap in the health care system.

Preventative dental care plays a significant role in the prevention of chronic diseases such as heart disease. The program’s primary goal is to maintain/improve quality of life including the ability to eat by providing pain relief, infection prevention and treatment. The program provides low-cost dental care, including routine care, hygiene and some restorative treatment, exams, x-rays, fillings, extractions, root canals, crowns and bridges, dentures, routine cleaning and periodontal treatment.

In 2017, the Arapahoe Senior Dental Program provided dental services for 334 seniors with 1,672 visits to the clinic.
The Core Nursing Program at TCHD is characterized by variety and flexibility, with six nurses engaged in a broad range of public health activities. Under the umbrella of the Immunization program, Core nurses supported Child Care Center immunization audits, Vaccines for Children (VFC) audits, regular walk-in and appointment clinics, refugee clinics, special offsite clinics and monthly Shots for Tots and Teens clinics.

Core nurses also carried out the Latent Tuberculosis Infection (LTBI) Case Management Program, coordinated the Reach Out and Read early literacy program, and served as the clinical scholars for nursing students from Regis University, University of Colorado, and University of Northern Colorado. At the close of 2017, Core nurses wrapped up their third year of participation in the Pertussis Post-Exposure Prophylaxis (PEP) study, in partnership with CDPHE and the CDC.

Core nurses also:
- Taught classes on birth control and sexually transmitted infections (STIs) in middle and high schools
- Participated in public health-related community organizations in Douglas County
- Rewrote TB testing policies, procedures and forms, in collaboration with Dr. Bernadette Albanese
- Participated in the Denver Metro Alliance for Human Papilloma Virus (HPV) Prevention, offering training to pediatric practices to help increase HPV vaccination rates.
- Provided temporary staffing assistance for Aurora Syringe Access Service (ASAS).

Quality Improvement Efforts:

A project initiated in 2017 focused on strengthening the Core Nursing Team by targeting areas for growth revealed by the Team Emotional and Social Intelligence Survey (TESI 2.0).
Community Outreach and Engagement

Healthy Communities Program

Access to comprehensive, quality health care services is important for the achievement of health equity and for increasing the opportunity for a healthy life for all residents. Improved access is dependent on a number of important factors including adequate insurance coverage and availability of health services. The Nursing Division’s Healthy Communities Program works to improve access for children and pregnant women enrolled in Health First Colorado, Colorado’s Medicaid Program, and Child Health Plan Plus (CHP+) by:

- Providing outreach to non-enrolled individuals and community-based organizations to bring awareness of Health First Colorado, CHP+ and the Healthy Communities program.
- Providing application assistance to non-enrolled individuals to obtain coverage into Health First Colorado and CHP+ as a Certified Application Assistance Site and a Presumptive Eligibility Site.
- Providing outreach and administrative case management to members newly enrolled into Health First Colorado and CHP+.
- Directing members to primary and specialty medical providers.
- Directing members to community-based organizations and agencies for non-medical services.

The total interactions performed by Healthy Communities Program Staff in 2017 was 62,501, and the total number of Presumptive Eligibility applications for Medicaid and CHP+ in 2017 was 1,897.

The Healthy Communities Program directly aligns with the TCHD Strategic Plan Goal 7 to increase interactions with the health care delivery system. One example from 2017 includes the partnership work with Colorado Access, the Regional Care Collaborative Organization serving Adams, Arapahoe and Douglas Counties. The partnership work included formalizing an Interagency Coordination Plan, including implementation of quarterly meetings and formation of six workgroups, which each began meeting regularly in 2017.

Quality Improvement Efforts:

The Healthy Communities Program also participated in several QI initiatives in 2017. Healthy Communities partnered with the MCH Medical Home Priority Area and Immunizations to identify clients receiving immunizations, and who reported not having a medical home for further follow up by Healthy Communities to assist in linking these clients to a regular source of primary care in the community.
The Regional Health Connector Program

A new workforce, Regional Health Connectors (RHC), was introduced in Colorado in 2016 with TCHD staffing this new workforce in 2017. TCHD’s RHC team includes one RHC for each county. RHCs improve health in Adams, Arapahoe and Douglas Counties by connecting the systems that keep our communities healthy — including primary care, public health, social services and other community resources.

RHCs do this by:
- connecting primary care providers and clinics with behavioral health and human services
- developing and implementing three unique projects to advance community health
- partnering with clinical Quality Improvement (QI) Teams to help medical practices prepare for new models of care and reach their clinic goals and
- recommending reliable resources to improve health outcomes

To date, the RHC team has interacted with 45 practices, including embedded clinical QI teams, with added interactions planned in 2018. In addition, the three unique projects each RHC implements depends on successful collaboration and partnership with multiple healthcare delivery and community-based partners. The scope of work of the RHC Program and an essential function includes quality improvement activities. For example, a RHC will partner with a clinical QI team working within a practice that wants to improve behavioral health referrals. The RHC will support this QI initiative by both connecting the practice with referrals to behavioral health providers but also recommend additional trusted and reliable behavioral health supports within the community.

The RHC Program supports the TCHD Strategic Plan Goal 7 by interacting directly with primary care providers and with clinical Quality Improvement teams.

Cross-Divisional Workgroups

Health Equity

The efforts of the Health Equity Workgroup support TCHD’s efforts to integrate health equity as a priority in all external interactions and all internal policies, procedures, programming and decision making. The workgroup collaborated with the Metro Denver Partnership for Health regional Health Equity workgroup to sponsor a summit in September. It also conducted a strategic planning process in 2017 that will provide direction for health equity work across the agency. Areas selected as priorities for workgroup focus include: establishing a solid foundation, launching agency efforts, building staff capacity, and monitoring progress. Membership continues to grow and is open to all staff.

Refugee and Immigrant

The Refugee and Immigrant Work Group has developed comprehensive priorities with consensus across divisions and focuses on translation of client facing materials and community engagement in the coming year. The group also created channels to share information about recent changes in U.S. immigration policy that affects clients and other community members and posted information on TCHD’s website.
**Division Revenue**

$18,040,182

- **General Funds**
  - $5,619,882 (31.1%)
- **Federal Pass Through Funds**
  - $3,147,801 (17.4%)
- **Arapahoe County Funds**
  - $1,525,029 (8.5%)
- **In-Kind Revenue**
  - $1,094,861 (6.1%)
- **Medicaid Funds**
  - $522,550 (2.9%)
- **Fees**
  - $447,985 (2.5%)
- **Grants**
  - $86,757 (0.5%)
- **Adams County Funds**
  - $288,874 (1.6%)

**Division Expenses**

$18,040,182

- **Salary & Benefits**
  - $11,376,256 (63.1%)
- **Indirect**
  - $2,729,138 (15.1%)
- **Operating Expenses**
  - $1,770,137 (9.8%)
- **Contract Services**
  - $1,045,553 (5.8%)
- **Capital Equipment**
  - $24,237 (0.1%)
- **In-Kind Expenses**
  - $1,094,861 (6.1%)
- **In-Kind Expenses**
  - $1,094,861 (6.1%)