Community Health Improvement Plan 2016-2018

Together! Healthy Linn

Linn County, Iowa

Updated May 5, 2017

Community Health Improvement Plan

2016-2018

Completed By:

Amy Lepowsky, PhD, MPH, CHES

Melissa Monroe, RN, MPH, CHES

Nicole Fields, MPH, CHES

Jacki Schares, B.S., CHES

Adrian Mackey, B.S.

Community Health Improvement Planning Team

Together! Healthy Linn Steering Committee			
Adrian Mackey LCPH	**Erin Foster** ASAC	**Kathy Johnson** Abbe	**Olivia Pond** AmeriCorp/LCPH
Amanda Whitlock Unity Point	**Eugenia Vavra** Heritage Area Agency	**Kelly Murphy** EIHC	**Pramod Dwivedi** LCPH
Amy Lepowsky LCPH	**Gary Streit** Shuttleworth & Ingersol	**Kent Jackson** Unity Point	**RaeAnn Barnhart** Four Oaks
Ana Clymer UWECI	**Gloria Witzberger** HACAP	**Kim Rimmer** CRCSD	**Roshaun Gnewuch** Mercy Medical
Ann Hearn LCCS	**Jacki Schares** LCPH	**Laura Semprini** Horizons	**Sarah Bliss** CVFF
Anne Russett City of Cedar Rapids	**James Hodina** LCPH	**Leslie Wright** UWECI	**Sharon Guthrie** Mt. Mercy University
Barb Gay ASAC	**Jane Drapeaux** HACAP	**Linda Langston** BOS/BOH	**Sheree Murphy** EIHC
Becky Nowacek IDPH	**Jennifer Hemmingsen** Gazette	**Lori Weih** Unity Point - St. Luke's Hospital & Jones Regional Medical Center	**Stephanie Lientz** LCP&D
Brandon Whyte CMPO	**Jill Gleason** Heritage Area Agency	**Mary Tarbox** Board of Health	**Stephanie Neff** Blue Zones Project/CRCSD
Chris Carman Linn County	**Joe Lock** EIHC	**Melissa Cullum** Mercy Medical	**Steve Hershner** City of Cedar Rapids
Cyndi Ziegler His Hands Free Medical Clinic	**John Brandt** LCCS	**Melissa Curry** EIHC	**Sister Susan O'Connor** Mercy Medical
Dan Strellner Abbe	**John Harris** Board of Supervisors	**Melissa Monroe** LCPH	**Tara Beck** Waypoint
Darrin Gage BOS	**Julie Stephens** LCPH	**Nancy Lee Ziese** Community	**Teri Keleher** Unity Point
Denise Bridges ASAC	**Justin Shields** City of Cedar Rapids	**Natalie Quinn** EIHC	**Tom Treharne** City of Marion
Elly Steffen	**Kaitlin Emrich** LCPH	**Nicole Fields** LCPH	**Tonya Goodburn** Planned Parenthood

Unity Point - Continuing Care Hospital

MAPP Core Team			
Adrian Mackey	**Jacki Schares**	**Katie Jones**	**Nicole Fields**
Amy Lepowsky	**Kaitlin Emrich**	**Melissa Monroe**	**Olivia Pond**

Strategic Issue Subcommittees

Social Determinants of Health

Amy Lepowsky LCPH	**Barb Gay** ASAC	**Jacki Schares** LCPH	**Brandon Whyte** CMPO
Adrian Mackey LCPH	**Ana Clymer** UWECI	**Melissa Monroe** LCPH	**Tonya Goodburn** Planned Parenthood
Chris Carman Linn County	**Stephanie Neff** CRCSD/Blue Zones	**Barbara Chadwick** LCPH	**Sarah Bliss** Cedar Valley Friends of the Family
Ann Hearn LCCS	**Kaitlin Emrich** LCPH	**Tom Treharne** City of Marion	**Elly Steffen** CCH - Unity Point Health
Melissa Cullum Mercy Medical	**Jane Drapeaux** HACAP	**RaeAnn Barnhart** Four Oaks	**Phoebe Trepp** Willis Dady Emergency Shelter
Ashley Zitzner UWECI	**Carrie Slagle** Waypoint	**J'nae Peterman** Waypoint	**Jennifer Barten** Cedar Rapids Grants & Programs
Melanie Riley ECICOG	**Sara Buck** Section 8 Housing	**Natalie Quinn** EIHC	
Renie Neuberger AHNI	**Ruby Perin** LCPH	**Danielle Rodriguez** PUSH-CR	
Paula Mitchell City of Cedar Rapids	**Heather Harney** HACAP	**Pramod Dwivedi** LCPH	

Behavioral Health

Nicole Fields LCPH	**Melissa Cullum** Mercy Medical	**Tonya Goodburn** Planned Parenthood	**Kaitlin Emrich** LCPH
Erin Foster ASAC	**Ana Clymer** UWECI	**Kent Jackson** Unity Point	
Ann Alliger Mercy Medical	**Kim Rimmer** CRCSD	**Leslie Wright** UWECI	

Health Promotion

Melissa Cullum Mercy Medical	**Ana Clymer** UWECI	**Jacki Schares** LCPH	**Tonya Goodburn** Planned Parenthood
Amy Lepowsky LCPH	**Kim Rimmer** CRCSD	**Melissa Monroe** LCPH	**Julie Stephens** LCPH
Adrian Mackey LCPH	**Melissa Walker** ASAC	**Cindy Fiester** LCPH	**Kaitlin Emrich** LCPH
Melissa Curry EIHC			

Table of Contents

Introduction

Good health is vital to individual happiness and well-being; the absence of good health leads to increased disease, death, and disability. In order to promote the health and well-being of the community, it is essential to actively engage in ongoing community health improvement planning and assessment. A community health improvement plan is a long-term systematic effort to address priority public health issues within a community. In January 2015, the Together! Healthy Linn steering committee was formed to create a community health improvement plan that targets the priority health concerns for those who live, work, worship, or attend school in Linn County. This committee is composed of various organizations and groups who serve the Linn County area. Development of the community health improvement plan was informed by a comprehensive community health assessment conducted between March and August of 2015. This document outlines Linn County's Community Health Improvement Plan developed between October and December of 2015, which includes the goals, objectives, and strategies associated with the priority strategic issues selected.

Methodology

In January 2015, the Together! Healthy Linn steering committee convened to begin planning the development of the 2016-2018 Community Health Improvement Plan. To guide the development of the community health improvement plan, the steering committee relied on the Mobilizing for Action through Planning and Partnerships (MAPP) framework, a community-wide strategic planning process that emphasizes community ownership of a joint community health improvement plan across organizations in Linn County. The framework encompasses six phases, including:

1. Creation of the steering committee
2. Development of a community vision
3. Conducting a community health assessment
4. Identifying strategic issues
5. Development of the Community Health Improvement Plan
6. Implementation of the strategies and tactics to address the strategic issues identified

At the initial steering committee meeting in January, the Together! Healthy Linn steering committee defined the community vision that would guide the development of the community health assessment and community health improvement plan. The committee envisioned a community where "The local public health system is accessible, affordable, collaborative, holistic, inclusive, and works to achieve a culture of health through collective impact. The community is active, empowered, diverse, knowledgeable, and lives in an environment that is sustainable, and supports an optimal quality of life for all." Following the initial meeting, subcommittees were formed to plan and guide the 2015 community health assessment, which was comprised of four unique assessments that gained qualitative and quantitative data on the

needs, assets, and health status of the community. Data obtained from the community health assessments were analyzed and synthesized into four community health assessment reports. Using the information from the assessments, the Together! Healthy Linn steering committee began to identify the pressing health issues that need to be targeted over the next 3 years in order to improve the overall health of Linn County residents. Both the assessment and prioritization of the overarching issues were guided by the larger Together! Healthy Linn steering committee as well as four subcommittees associated with each of the assessments.

Prioritization occurred across two steering committee meetings held in the month of October. During the initial meeting, members identified the common themes and data points that arose from each of the four assessments. Members documented these themes and data points on colored Post-it notes that corresponded to the assessment that the data point was associated. The Post-it notes were placed on the wall in a centralized location in the meeting room. Once all points were stuck to the wall, the group was instructed to arrange the data points into common themes. Overall, the committee identified twenty-two individual themes during the initial meeting. Prior to the second meeting, the core MAPP team input the data points for each of the themes into separate strategic web diagrams to assist with the development of strategic questions in the next stage of prioritization. In addition, the core MAPP team worked to further combine like themes into similar overarching groupings as well as to develop proposed strategic questions in preparation for the second steering committee meeting in October. The core MAPP team strategically reduced the twenty-two theme categories into ten priority areas:

- Chronic Disease
- Collaboration
- Prevention through education
- Crime and Violence
- Quality of Life
- Access to Care
- Vulnerable Populations
- Substance Abuse
- Child/Adolescent Wellbeing
- Mental Health

At the beginning of the second October steering committee meeting, the group were asked to examine the ten strategic web diagrams provided and consider if any of the themes should be combined. After much discussion, the committee reduced the ten strategic categories into five renamed Behavioral Health, Social Determinants of Health, Quality of Life, Health Promotion, and Collaboration. After having renamed the categories, the committee also reevaluated the related strategic questions associated with each of the categories. The committee members were then provided three stickers each with a different value to aid in prioritization of the three strategic areas that the community will seek to address in the community health improvement plan. The three strategic issues of focus for the 2016-2018 community health improvement plan include Social Determinants of Health, Behavioral Health, and Health Promotion.

Following the October meeting, the core MAPP team used the data from the community health assessments to devise proposed goals for each of the strategic priority issues. The steering committee was then able to vote on the three goals associated with the three priority strategic issues that the community will seek to address between 2016 and 2018. Upon selection of the goals, committee members had the opportunity to join strategic issue subcommittees who were responsible for developing the objectives and strategies associated with each of the strategic priority issues. The subcommittees were convened in November to begin development of the objectives and strategies. Selected objectives and strategies align with Healthy People 2020 and best practice approaches. Moving forward, the subcommittees will continue to meet regularly to work toward addressing the goals and objectives outlined in the community health improvement plan.

Development of Objectives

The objectives associated with each of the goals were developed based on multiple criteria. First, the objective must relate to the goal and be supported by relevant data obtained through the community health assessment. Secondly, the objective must be structured using the SMART criteria (Specific, Measurable, Achievable, Realistic, and Time-bound). In the interest of developing objectives that are both achievable and realistic, the Together! Healthy Linn steering committee selected reasonable percentages of improvement based on current data trends for each of the proposed condition areas as well as an estimation of the impact the local public health system may have in the 3 years allotted. For the objectives where a significant upward trend is noted, the most realistic strategy to reduce the upward trend is to first achieve stabilization.

Definitions

Vulnerable populations: Groups of persons whose range of options is severely limited or who are at an increased risk for coercion in their decision making due to their financial, social, or demographic characteristics. For the purposes of this report, vulnerable populations refer to low-income, homeless, child/adolescent, older adult, rural, and minority populations.

Community Partners: An arrangement in which agencies and/or individuals work together to advance mutual interests. For the purpose of this report, community partners refer to the agencies and individuals who may impact the health of community members. Agency sectors may include elected officials, corrections, transit, fire, mental health, public health agency, law enforcement, home health, community centers, community health clinics, drug treatment programs, emergency medical system, schools, hospitals, non-profit organizations, laboratories, doctors, employers, civic groups, and neighborhood associations.

Child and Youth-Based Organizations: Organizations who provide programs and onsite services to children 0 to 17 years in order to support the healthy development of the child into adulthood.

These organizations may include early childhood education sites, afterschool programs, and sites such as the YMCA who provide a variety of youth focused programming.

Hard to House Populations: Groups of individuals who experience difficulties in obtaining affordable housing, both as a renter or homeowner. These individuals include those with prior criminal convictions, poor credit history, past evictions, and registered sex offenders.

Social Determinants of Health

The social factors and physical environment in which one is born, lives, works, plays, and ages may pose a significant impact on individual quality of life and health. This concept is known as social determinants of health, which encapsulates five main determinants that contribute to overall health. As illustrated in the model below, these five categories include:

- Neighborhood and Built Environment
- Health and Health Care
- Social and Community Context
- Education
- Economic Stability

Together, these five determinants reflect a number of key issues that may adversely impact the health of individuals in a variety of indirect and direct ways. The neighborhood and built environment determinant reflects on the physical aspects of the environment that a person is exposed to, including access to healthy foods, transportation, safe walking environments (lighting, clean, sidewalks, etc.), safe neighborhoods and housing, handicap accessible accommodations, and the natural environment (plants, weather, or climate change). One example of the **neighborhood and built environment** determinant is an increased level of neighborhood crime, which may deter an individual from exercising where they live, lead to heightened levels of stress and illness, and increase the likelihood for perpetration of youth involvement in gangs.

Health and healthcare refers to a person's ability to access health services financially, physically, and in a timely manner as well as possessing the capacity to understand and process basic health information and services needed to make health decisions (**health literacy**). Without access to health services an individual is less likely to seek preventive and medical care when needed leading to worsening health conditions. The third determinant, **Social and Community**

Context, reflects how connected an individual feels or is to the community and those around them. In addition, this may encompass feelings of discrimination, racism, and equity in the community as well as reflect the community context in which one is immersed such as community and family norms (domestic violence/substance use and abuse) or incarceration/institutionalization. Finally, both the **education** and **economic stability** determinants are similar in that a higher level of education and economic attainment are typically associated with a higher level of health and well-being and vice versa. However, the education determinant may also include language barriers and access to early childhood education that may support healthy development. **Economic stability** may speak to a person's ability to access basic needs and obtain gainful employment. Individuals with financial barriers may experience difficulty obtaining and maintaining safe and affordable housing, and accessing nutritious foods, health services, and reliable transportation.

Social Determinants of Health as a Strategic Issue

Multiple factors related to social determinants of health were identified in Linn County's 2015 community health assessment. Throughout the assessments, public transportation was noted as being associated with a lack of connectivity between cities, inaccessibility of bus stops, an inability among low-income individuals to afford services, and a need for buses to expand hours and days of operation to accommodate users who are dependent on public transit as the primary mode of transportation. The issue of limited hours and days of operation were disproportionally noted among low-income and homeless populations as a barrier to access employment and health services. Similarly, the need for additional safe and affordable housing options was specific to the low-income and homeless populations; with the need for additional transitional housing and shelters being a concern related to the homeless, and the significant barriers experienced in obtaining and maintaining affordable housing voiced by both low-income and homeless populations. Another factor related to economic stability is the lack of affordable healthy food options available to the community, particularly highlighting the number of children and adults in Linn County who are considered food insecure. In addition to a lack of access, a lack of understanding or time to prepare healthy meals was also repeated throughout the community health assessment suggesting a need for education to be coupled with increased access to healthy foods.

Regarding access to health services, the Affordable Care Act has led to an increase in the number of individuals insured; however, both the unknown consequences of Medicaid Modernization in Iowa and shortage of primary care providers, psychiatrists, and healthcare staff in Linn County poses a particular concern regarding the ability of residents to access and afford needed health services. Even when individuals are able to access services they may not be able to do so in the timeframe in which services are needed due to long wait times to see a provider. With an increasingly diverse population in Linn County there is an increased need to identify the unique needs of the population served by the local public health system in Linn County particularly related to low-income, adolescent, older adult, minority, and rural populations.

Based on the data obtained through the assessment, the Together! Healthy Linn Steering Committee selected three goals that fall under the overarching strategic question **"How does the local public health system ensure access to population-based and personal healthcare to address the unique needs experienced by the vulnerable populations in Linn County?"** The three goal areas selected include:

1. Safe and Affordable Housing
2. Access to Care and Community Resources
3. Adverse Childhood Experiences (ACEs)

Social Determinants of Health

Safe and Affordable Housing

The ability to obtain safe and affordable housing has a significant impact on the physical and mental health of individuals and families. High quality housing eliminates exposure to both physical and environmental hazards such as unsafe structures, infestation of pests, and the presence of harmful toxins. In contrast, poor quality and inadequate housing contributes to the onset of health problems such as infectious and chronic diseases, injuries, and poor childhood development. Likewise, an inability to access affordable housing poses a significant financial burden on families as they are often unable to afford basic resources such as healthcare, healthy foods, and transportation. Financial burden tends to result in excess stress and a feeling of insecurity, which contributes to poor mental health as well as increased illness.

From 2007-2011, **10% of Linn County households had severe housing problems** defined as one or more of the following: overcrowding, high housing costs, and no kitchen or plumbing facilities. With an increased number of families needing housing, it is important to address barriers that decrease the availability of safe and affordable homes.

Living in a distressed environment exacerbates the effects of family poverty on educational achievement, economic prospects and other indicators of health. These neighborhoods often lack support, services and opportunities to reach their full potential. By assisting in improving housing standards and availability, vulnerable populations are given an opportunity to improve their quality of life and access a greater number of support services.

Benefits of Safe & Affordable Housing:

- Stable housing connects people to services & resources
- Opportunities to reach potential
- Provide sustainability for families

Challenges of Safe and Affordable Housing:

- Current cost to rent
- Lack available options
- Housing not located on public transportation route
- Isolating residents from resources and networks
- Stigma associated with crime and poor housing conditions

Social Determinants of Health

Goal#1	**Increase access to properly maintained and affordable housing.**	
Objective 1-1	By June 1, 2017 a plan will be implemented to address the barriers that hard to house populations and those living under 30% of the area median income (AMI) face in relation to obtaining affordable housing.	
	Strategy 1-1.1	Collect existing data on barriers to accessing affordable housing among the targeted population across Linn County
	Strategy 1-1.2	Assess the barriers that landlords face that influence their willingness to rent to individuals in the defined population across Linn County
	Strategy 1-1.3	Engage city staff in conversation regarding limitations and opportunities to support affordable housing in their jurisdiction
	Str1ategy 1-1.4	Conduct a targeted assessment of the barriers experienced by the defined population related to accessing affordable housing.
	Strategy 1-1.5	Analyze primary and secondary data and synthesize into a report
	Strategy 1-1.6	Use data to inform the development of a multi-level plan to address identified barriers to accessing housing among the target population
	Strategy 1-1.7	Implement the multi-level plan
Objective 1-2	Between January 1, 2018 and January 1, 2019, 50% of individuals and families who enter into lease agreements associated with the affordable housing stock (section 8 vouchers, transitional housing) will have received tenant education on tenant rights, proper housing maintenance (cleaning), and building a positive rental resume.	
	Strategy 1-2.1	Identify and assess tenant education currently being conducted in the community (who is providing, curriculum, frequency, clientele, circumstance training is provided, culturally competent/tailored).
	Strategy 1-2.2	Investigate best practice tenet education curriculum and strategies to engage clientele
	Strategy 1-2.3	Investigate opportunities for additional trainings to occur (location, time)
	Strategy 1-2.4	Identify and assess demographics and language needs of current tenants to inform need for tailored education
	Strategy 1-2.5	Strategically expand upon current tenant education using multiple approaches
	Strategy 1-2.6	Partner with affordable housing lead agencies to investigate a referral process for providing tenant education and connecting clients with other needed support resources.

Objective 1-3	By January 1, 2019 50% of participants from social service agencies who complete basic housing hazards training will demonstrate increased knowledge of potential in-home hazards. The training will result in an increased capacity of agencies providing in-home services to provide resources to partners and clients in order to mitigate general unsafe home conditions.	
	Strategy 1-3.1	Identify a list of social service and health care agencies that provide in-home services in Linn County.
	Strategy 1-3.2	Develop a resource sheet that identifies unsafe conditions and provides contact information for service agencies.
	Strategy 1-3.3	Identify core curriculum of basic housing hazards.
	Strategy 1-3.4	Develop a training process
	Strategy 1-3.5	Develop an evaluation tool for the general hazard training.
	Strategy 1-3.6	Engage social service agencies and gain buy in from agency leaders.
	Strategy 1-3.7	Provide training to social service agencies
	Strategy 1-3.8	Track program effectiveness

Access to Care and Community Resources

Access to care is an important social determinant of health and a growing concern for many low-income residents. An inability to access health services when needed has serious implications on overall personal health. Timely use of personal health services allows for early detection and prevention of disease and disability. There are multiple factors that may contribute to one's ability to access health services. Access to health insurance is a necessary factor in order to reduce costs of needed services and promote preventative measures. In addition to health insurance, an individual may also experience difficulty accessing services due to an inability to access reliable and affordable transportation, ability to afford copays or medical bills, cost of prescriptions, possible restrictions to service imposed by insurance/medical providers, and the ability to obtain timely appointments with providers. Likewise, the distance between where one lives and the location where services are provided impedes the ability of individuals to gain access to services when needed. These factors also make it difficult for individuals to manage complicated chronic disease issues and obtain timely support to reduce the severity of disease.

One important function of the local health system is to ensure that all people have appropriate access to care and services regarding their health. Availability and transportation to health care systems, off site services, and an adequate amount of providers that develop relationships with patients can help address the barriers many people face when seeking assistance. In addition, the local public health system may assist in breaking down access barriers through community and provider education particularly in the midst of the unknown implications of Medicaid Modernization.

Benefits to Accessing Healthcare

- Meet necessary health needs
- Timely care services
- Preventive services treat needs before they become more severe
- More providers decreases wait time and missed appointments

Barriers to Accessing Healthcare

- Unmet health needs
- Delaying appropriate care
- Inability to receive preventive services
- Lack of insurance coverage
- High cost and low availability
- Limited available providers

Social Determinants of Health

Goal#2	**Increase access to care and community resources for vulnerable populations**	
Objective 2-1	By January 1, 2019 a plan will be implemented to address the gaps in transportation services and the barriers to transportation experienced by community members.	
	Strategy 2-1.1	Convene county-wide transportation experts into a conversation in order to align transportation plans and outline gaps to services specific to vulnerable populations
	Strategy 2-1.2	Provide community education on available transportation resources
	Strategy 2-1.3	Provide education to community members and businesses on multi-modal transportation benefits and opportunities
	Strategy 2-1.4	Work with cities to address physical transportation service gaps in their jurisdictions
Objective 2-2	By January 1, 2019 increase the number of practicing healthcare providers who accept Medicaid by 5%.	
	Strategy 2-2.1	Investigate opportunities to recruit and retain healthcare providers during early education and undergraduate programs
	Strategy 2-2.2	Develop a plan to recruit and maintain primary care and healthcare staff
	Strategy 2-2.3	Implement individual organization recruitment plan
Objective 2-3	Increase the number of social and health outreach services available to vulnerable populations by 10% prior to January of 2019.	
	Strategy 2-3.1	Assess the service needs and barriers of vulnerable populations in Linn County
	Strategy 2-3.2	Identify services currently available to vulnerable populations across Linn County
	Strategy 2-3.3	Identify locations where off-site services may be provided to address access barriers
	Strategy 2-3.4	Engage partners who may provide social and health services
	Strategy 2-3.5	Develop marketing strategy to inform the community about available clinics
	Strategy 2-3.6	Use available off-site locations to hold satellite clinics and social services

Social Determinants of Health

Objective 2-4	By January 1, 2019 the utilization of primary and specialized care services among Medicaid patients will be increased by 10%.	
	Strategy 2-4.1	Investigate the impact of Medicaid modernization on access to primary and specialized care
	Strategy 2-4.2	Educate the community on the impacts of Medicaid modernization on access to primary and specialized care
	Strategy 2-4.3	Develop a process for efficiently connecting vulnerable populations to needed services
	Strategy 2-4.4	Assess reasons for missed medical appointments
	Strategy 2-4.5	Create resources to support health care providers eliminating barriers to care.
Objective 2-5	By January 31, 2018 a population health management system will be in place to connect vulnerable populations with needed resource and support services.	
	Strategy 2-5.1	Investigate the impact of Medicaid modernization on access to primary and specialized care.
	Strategy 2-5.2	Identify and assess existing referral systems in Linn County (community resource sheets, hospitals, clinics, non-profits)
	Strategy 2-5.3	Identify gaps and opportunities for improvement with current referral process
	Strategy 2-5.4	Assess needs and barriers to well-being among vulnerable populations in targeted locations throughout Linn County
	Strategy 2-5.5	Select a referral system to support community referrals
	Strategy 2-5.6	Use assessment data to develop a responsive referral system
	Strategy 2-5.7	Establish contracts between referral partners and the care coordination system host site
	Strategy 2-5.8	Develop and disseminate client signed consent agreement to all referral partners
	Strategy 2-5.9	Implement the developed care coordination system
	Strategy 2-5.10	Evaluate the effectiveness of the care coordination system in connecting client to needed resources

Adverse Childhood Experiences (ACEs)

Potentially traumatic events can have lasting effects on individual health and well-being, particularly when experienced at a young age. These experiences can range from physical, emotional, or sexual abuse to parental divorce or incarceration of a parent or guardian. Other negative exposures that impact individual health may include exposure to violence (within the home or neighborhood), financial instability, household substance abuse, and mental illness. Together these negative experiences and stressors are referred to as adverse childhood experiences. If not addressed, these experiences may shape how children think, react, and transform into adulthood. According to the Centers for Disease Control and Prevention (2014), exposure to any of these adverse childhood experiences may result in multiple health and social issues at a later age, with an increased number of negative experiences increasing the severity and likelihood of poor health. Among the health issues identified is an increased likelihood for:

- Substance Abuse
- Chronic Obstructive Pulmonary Disease (COPD)
- Depression
- Unsafe sexual encounters (STIs, multiple partners, unintended pregnancy)
- Intimate partner violence
- Heart and liver disease
- Poor quality of life

Reducing the Number of Children Impacted by ACEs

Linn County, like other areas across the nation are impacted by risk factors associated with ACEs including child abuse, community and domestic violence, mental health and substance abuse issues, and financial instability. As such, the local public health system must work together to support the healthy development of Linn County children in order to impact the health and well-being of future generations. Partners may do so through the support of the resources that are available to recognize children at risk and assist in the prevention of continued exposure to adverse experiences as children grow. Collaborating with schools districts and youth-based organizations in the county can increase awareness and provide additional services to meet the needs of children exposed to these adverse experiences.

Social Determinants of Health

Goal #3	**Decrease the number of children who are negatively impacted by risk factors associated with Adverse Childhood Experiences (ACEs)**	
Objective 3-1	By January 1, 2019, 30% of child and youth-based organizations, school buildings, and primary healthcare providers in Linn County will have implemented a comprehensive program to prevent and mitigate the impact of ACEs.	
	Strategy 3-1.1	Identify the number of child and youth-based organizations, school buildings, and primary healthcare providers in Linn County.
	Strategy 3-1.2	Assess current trauma informed care practices, support services, and curriculum within schools
	Strategy 3-1.3	Assess current trauma informed care practices, support services, and curriculum within child and youth-based organizations
	Strategy 3-1.4	Assess current trauma informed care practices and support services within healthcare providers.
	Strategy 3-1.5	Promote, pilot, and implement school-based, evidence-based curriculum
	Strategy 3-1.6	Promote, pilot, and implement evidence-based curriculum in community youth-based organizations and early childhood centers
	Strategy 3-1.7	Educate child and youth-based organizations and providers about trauma informed care
	Strategy 3-1.8	Promote culturally responsive and inclusive positive parenting education and support programs
	Strategy 3-1.9	Promote the adoption of the Centers for Disease Control and Prevention “Essentials for Childhood Framework” county-wide
	Strategy 3-1.10	Investigate and assess policies that may positively impact child and family well-being and resiliency
Objective 3-2	By January 1, 2019, there will be a 50% increase of knowledge by primary care providers and behavioral health care providers in regards to ACE’s and the effective strategies that support improving adult health management.	
	Strategy 3-2.1	Mitigate the consequences of ACEs in families with parent support interventions aimed at improving the parent child relationship and building resilience among at-risk children
	Strategy 3-2.2	Train organizations that provide services to adult populations about trauma informed care.

	Strategy 3-2.3	Promote culturally responsive and inclusive positive education and support programs
	Strategy 3-2.4	Investigate and assess policies that may positively impact child and family well-being and resiliency

Behavioral Health

Mental health and drug and alcohol use are often co-occurring issues, with individuals experiencing poor mental health being more likely to use alcohol or drugs than those who are unaffected by a mental health issue (Center for Behavioral Health Statistics and Quality, 2015).

As mental health issues have historically carried a stigmatized reputation and typically encompass a wide-variety of contributing factors and risk behaviors, the more holistic term behavioral health is preferred. The term behavioral health encompasses the relationship between individual behavior, environmental and social risk factors, and their impact on health and well-being associated with mental illness and substance abuse issues. In the behavioral health sector, efforts are typically geared towards promoting well-being through the intervention and prevention of mental illness as well as substance abuse and other addictions.

Behavioral health issues pose a major challenge to the health of individuals, families, and communities. In 2014, there were an estimated 15.7 million adults and 2.8 million youth in the United States who experienced a major depressive episode within the previous 12 months (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015). An additional, 22.5 million individuals 12 years of age or older reported needing treatment for alcohol or illicit drug use during the same time period (SAMHSA, 2015). Issues related to behavioral health may be addressed through prevention, intervention, and treatment of mental health and substance use problems.

According to SAMHSA (2015), prevention of mental health and substance use disorders is critical to ensure the optimal behavioral and physical health for all. Risk behaviors and symptoms leading to the development of behavioral disorders often appear 2-4 years prior to onset. As such, communities and families have the opportunity to potentially prevent or mitigate the development of behavioral health issues through early intervention that targets risk behaviors and symptoms. Even intervention following the first episode of serious mental illness improves the chances of positive outcomes for the individual and their families.

An investment of $1 in prevention programs yields a $2-$10 savings in health, criminal and juvenile justice, educational, and lost productivity costs

Behavioral Health as a Strategic Issue

Both drug and alcohol use and mental health concerns were heavily emphasized throughout the 2015 community health assessment; however, the concerns were identified regarding multiple aspects of both ranging from service issues to increased rates of illness to social considerations. With increasing numbers of additional illicit drug options available, there is a concern that there is a lack of community understanding regarding these substances and potentially the impact the substance may have on Linn County. Compounding the issue of a poor understanding of illicit drugs is the poor regulation of these and other types of substances. This is particularly evident in the increased rates of deaths in Linn County resulting from accidental poisonings (12.1 deaths per 100,000 population). In addition to an increase in accidental poisonings, there was also an increase in the level of binge drinking among adults and illicit drug use among adolescents. Related to the social environment, community members were particularly vocal about the desire to move away from an apparent culture of alcoholism in the community to provide more family friendly restaurants and recreation options. Likewise, community members highlighted a need for the community and families to model healthy behaviors for children to help support positive development. As previously indicated, substance use and abuse may also become a larger issue when paired with mental health issues.

The mental health system has gone through a lot of changes in past couple of years that have posed some serious unintended consequences for the growing number of adolescents and adults who experience mental health issues. Loss of funding for mental health has restricted the number of programs available for those in need particularly for low-income, homeless, and at-risk youth. This burden is only compounded by the recent closure of the state mental health institutes, which has led to lack of available beds for more severe mental health cases. In general, a disparity was highlighted between the number of people suffering from mental health conditions and the number of available mental health providers, particularly psychiatrists. A lack of providers along with lack of timely appointments to see the available providers, poses a significant concern when dealing with conditions in need of immediate assistance. Among the populations most impacted by mental health conditions are low-income, homeless, and a growing number of adolescents of both sexes. However, the manifestation of mental health issues differs between sexes with males being more likely to commit suicide and females, most commonly mothers, being more likely to report experiencing poor mental health.

Based on the data obtained through the assessment, the Together! Healthy Linn Steering Committee selected three goals that fall under the overarching strategic question **“How does the local public health system increase the access and utilization of behavioral health services to improve the overall health and well-being of the community?”** The three goal areas selected include:

1. Mental Health Services
2. Suicide
3. Substance Abuse

Behavioral Health

Mental Health Services

Mental health is a multi-faceted concept that includes emotional, psychological, and social well-being. It impacts individuals throughout the lifespan beginning from childhood to death. Mental health can have profound effects on how we think, feel, and act along with how we interact with others. Over the course of their lives, many people experience mental health problems, which may affect their thinking, mood, and behavior. Many facets can contribute to mental health problems including biology, life experiences, and a family history of mental illness.

Due to the stigma associated with mental health conditions they are often under reported, making it difficult to accurately measure the number of individuals who are truly affected by mental health issues. According to the U.S. Department of Health and Human Services (2015), one in every five adults in the United States experienced a mental health issue in 2014.

In Linn County, 29% of adult residents reported having experienced one or more days of poor mental health in 2013. Among the adults who reported poor mental health, 16% report between one and five days and 10.1% report between 11 and 30 days of poor mental health in the past 30 days. Among female respondents, mothers are at an increased risk for experiencing poor mental health with 47.4% of mothers experiencing poor mental health for 11 or more days per month. The increasing issue of mental health in Linn County is compounded by a lack of mental health providers, an inability to obtain a timely appointment with a provider, and the cost of obtaining services.

The rate of mental health providers in Linn County is 386:1

Behavioral Health Community Resources

- Community health centers
- Hospitals and clinics
- Local government assistance programs
- Law enforcement
- Local school districts, teachers, school nurses

Behavioral Health

Goal #1	**Increase access to mental health services**	
Objective 1-1	By January 1, 2019, increase the percentage of healthcare prescribers who provide mental health services in Linn County by 10%.	
	Strategy 1-1.1	Identify the current number of psychiatric healthcare prescribers who provide mental health services to their patients and those who accept Medicaid
	Strategy 1-1.2	Provide clear information to helping professionals about all regional mental health access points
	Strategy 1-1.3	Assess barriers and concerns primary care prescribers face related to providing mental health services
	Strategy 1-1.4	Implement a recruitment strategy to increase the number of mental health prescribers who are available in Linn County and those who provide Medicaid
	Strategy 1-1.5	Implement mental health advocacy efforts at the local and state levels
Objective 1-2	By January 1, 2019 there will be an increase in the number of available resources linking individuals to mental health services	
	Strategy 1-2.1	Research and quantify current mental health referral processes
	Strategy 1-2.2	Research best practice methods for implementing mental health services including crisis situations
	Strategy 1-2.3	Develop and implement a procedure to increase crisis mental health service opportunities
	Strategy 1-2.4	Educate the community about available mental health resources
	Strategy 1-2.5	Continue the use of mental health screenings within primary care offices
	Strategy 1-2.6	Provide community members access to mental health services through the use of telehealth services
Objective 1-3	By January 1, 2019, there will be a 2% reduction in adults who report poor mental health	
	Strategy 1-3.1	Develop and implement a mental health awareness campaign that addresses stigma related to mental health issues
	Strategy 1-3.2	Promote prevention and stigma reducing services through social services, youth & adolescent organizations, faith based organizations, and providers serving at-risk populations

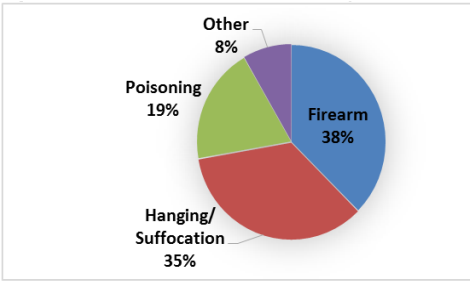
Behavioral Health

Suicide

According to the CDC (2015), in 2013 suicide was the 10th leading cause of death in the U.S. Suicide occurs as a result of a person voluntarily taking their own life. In 2013, approximately 41,149 individuals committed suicide in the U.S. An additional 1.3 million adults made an attempt to take their own life. As such, the breadth of the issue of suicide is much larger than just the individuals who successfully commit suicide. It is estimated that for every one suicide death, there are twelve attempted suicides.

In 2011 there were 27 suicides in Linn County for an age-adjusted suicide rate of 11.0 per 100,000 population. The suicide rate has fluctuated from year to year, but the three year average from 2009 to 2011 was 9.5 suicides per 100,000 population. The rate of suicide in Linn County has been increasing, but is still slightly below the rate for Iowa and the United States. According to the Iowa Youth Survey, 13% of Linn County students have thought seriously about committing suicide with 3% having attempted suicide in the past year.

Between 2011 and 2012, the majority of suicides completed in Linn County were by firearm (38%) or hanging/suffocation (35%). Of the suicide deaths, a majority were among males as compared to females (83% male compared to 17% female), which is common. According to the American Foundation for Suicide Prevention (2015), males are more likely than females to die by suicide; however females attempt suicide 3 times as often as males.



Source: Iowa Department of Public Health Vital Statistics

Suicide Protective Factors

- Effective clinical care for mental, physical, and substance abuse disorders
- Easy access to a variety of clinical interventions and support for help seeking
- Family and community support (connectedness)
- Support from ongoing medical and mental health care relationships
- Skills in problem solving, conflict resolution, and nonviolent ways of handling disputes
- Cultural and religious beliefs that discourage suicide and support instincts for self-preservation

Suicide Risk Factors

- Family history of suicide
- Family history of child maltreatment
- Previous suicide attempt(s)
- History of mental disorders, particularly clinical depression
- History of alcohol and substance abuse
- Feelings of hopelessness
- Impulsive or aggressive tendencies
- Local epidemics of suicide
- Isolation, a feeling of being cut off from other people
- Barriers to accessing mental health treatment
- Loss (relational, social, work, or financial)
- Physical illness
- Easy access to lethal methods
- Unwillingness to seek help because of the stigma attached to mental health and substance abuse disorders or to suicidal thoughts

Behavioral Health

Goal #2	**Decrease the rate of suicide in Linn County**	
Objective 2-1	By January 1, 2019 adult suicide rates will be decreased by 10%	
	Strategy 2-1.1	Identify existing services in Linn County related to suicide prevention.
	Strategy 2-1.2	Increase early intervention services related to suicide prevention.
	Strategy 2-1.3	Promote and expand upon existing suicide prevention efforts and programs.
	Strategy 2-1.4	Partner with firearm dealers, Linn County Sheriff's office, and gun owner groups to incorporate suicide awareness as a basic part of firearm safety and responsible firearm ownership.
Objective 2-2	By January 1, 2019 increase community awareness and response to risk factors related to serious mental illness through education provided to 25% of middle and high schools, colleges/universities, local government, and healthcare providers in Linn County.	
	Strategy 2-2.1	Assess current suicide prevention practices conducted within the community.
	Strategy 2-2.2	Assess the current suicide prevention practices implemented within Linn County school systems
	Strategy 2-2.3	Standardize the implementation of evidence-based suicide prevention curriculum across one Linn County school district.
	Strategy 2-2.4	Educate and train teachers, youth-based staff, and healthcare providers on identifying warning signs and behaviors related to serious mental health illness and referring patients to needed services.
	Strategy 2-2.5	Educate parents on identifying warning signs and behaviors related to serious mental health illness and the resources available in the community.
	Strategy 2-2.6	Promote positive adult to child relationships to increase social connectedness.

Behavioral Health

Substance Abuse

Substance misuse refers to the use of drugs or alcohol for purposes it is not intended. For instance, an individual may neglect to follow the medical instructions for use of medications prescribed to them or they may elect to take a drug or medication that has not been prescribed to them. Often times, drugs are misused in order to get larger or faster therapeutic response. Alternately, substance abuse refers to the harmful or hazardous use of alcohol and/or drugs. Drug and alcohol abuse is usually associated with the user seeking euphoria or relaxation from the substance. Continued abuse of these substances may lead to dependence resulting in an inability to control use, cognitive and physical impairment, and increased tolerance to the substance.

In Linn County, the percentage of youth who report using alcohol, tobacco, and illicit drugs is slightly less than the averages for the state. According to the Iowa Youth Survey, 11% of students in Linn County use illicit drugs, 8% use alcohol, and 4% use tobacco. Of the students surveyed, 9% also report having ever used marijuana with 5% of all students reporting to having done so within the past 30 days.

Binge drinking is also an issue for both adults and youths in Linn County. Among adults, 18% report having engaged in binge drinking within the past 30 days. Twelve percent of 11 graders in Linn County report binge drinking within the past 30 days.

Binge drinking is commonly defined as five or more drinks of alcohol on the same occasion for men and four or more for women.

Misuse	Abuse
• Taking a dose at the wrong time. • Forgetting to take a dose. • Stopping medication too soon. • Accepting prescription medication from a friend. • Taking drugs for reasons other than what they were prescribed for.	• Using substance for relaxation or the euphoric feeling it causes. • Using medication without a prescription. • Repetedly exceeding recommended doses. • Chronic or repeted abuse. • Developed tolerance.

Behavioral Health

Goal #3	**Decrease the rate of substance abuse among adults and adolescents**	
Objective 3-1	By January 1, 2019, the rate of binge and underage drinking will be reduced by 2%.	
	Strategy 3-1.1	Increase substance abuse outreach and education to homeless population providers.
	Strategy 3-1.2	Establish a system to connect homeless and vulnerable populations with mental health and substance abuse support services.
	Strategy 3-1.3	Identify the source adolescents use to obtain alcohol
	Strategy 3-1.4	Use adolescent alcohol access data to support the utilization of a comprehensive evidence-based alcohol prevention program.
	Strategy 3-1.5	Provide evidence based prevention programming to youth to increase critical life skills needed to abstain from alcohol.
	Strategy 3-1.6	Investigate and assess policies that encourage a reduction in adolescent access to alcohol and binge drinking behaviors.
	Strategy 3-1.7	Promote the adoption of relevant policies.
Objective 3-2	By January 1, 2019 the rate of marijuana use among adolescents will be reduced by 2%.	
	Strategy 3-2.1	Increase outreach and education among adolescents to increase perception of harm regarding marijuana use.
	Strategy 3-2.2	Increase outreach and education through environmental practices that prohibit accessibility to marijuana paraphernalia and marketing.
	Strategy 3-2.3	Increase outreach and education on identification and referral to treatment for adolescents.

Behavioral Health

Objective 3-3	By January 1, 2019 the rate of prescription drug abuse and misuse will be maintained.	
	Strategy 3-3.1	Engage and partner with local law enforcement agencies, pharmacies, and physicians.
	Strategy 3-3.2	Utilize opportunities to prevent misuse/abuse at the point of prescription.
	Strategy 3-3.3	Increase outreach and education to increase perception of harm of prescription medication use among younger adolescents.
	Strategy 3-3.4	Increase education on Count, Lock, and Disposal practices.
	Strategy 3-3.5	Increase outreach and education on identification and referral to treatment.
Objective 3-4	By January 1, 2019, reduce the percentage of adults and adolescents who currently use nicotine delivery products including cigars, cigarettes, smokeless tobacco, and electronic smoking devices by 2%.	
	Strategy 3-4.1	Promote evidence-based tobacco cessation strategies and outlets.
	Strategy 3-4.2	Work with school districts, colleges, and worksites to improve campus regulation of nicotine use.
	Strategy 3-4.3	Partner with health care providers to increase tobacco screening in health care settings and referral to support services.
	Strategy 3-4.4	Investigate and assess policies that encourage a reduction in adolescent access to nicotine products and protect community members from unwanted exposure to second hand smoke and nicotine.
	Strategy 3-4.5	Promote the adoption of relevant policies related to nicotine delivery products.
	Strategy 3-4.6	Increase enforcement of regulations related to the access of electronic smoking devices among adolescents.

Health Promotion

Over the past couple of decades, it has become clear that health cannot be achieved through the address of diseases after they have developed, but by taking action before disease takes place. Even more, action must be taken to prevent disease through implementation of multiple strategies that impact the community at different levels. This concept is known as health promotion, where people and communities are empowered to increase control over and improve their health. Health promotion strategies typically engage communities at five levels, individual, interpersonal, organizational, community, and public policy.

Individual level strategies seek to improve knowledge of a topic, change inaccurate preconceived attitudes, and help individuals develop the skills necessary to make healthy decisions and avoid risk or harm. The next level is **Interpersonal**; at this level strategies target relationships between the members that comprise a person's social support system such as family, friends, and healthcare providers and how they may influence individual health decisions and behaviors. The third level, **Organizational,** seeks to influence individual health and behavior change through organizational-level operations and policies. The organizational level may include implementation of an electronic alert system reminding patients and providers of overdue immunizations, to worksite wellness programs that support employee health through wellness policies and initiatives. The fourth level, **Community,** seek to support individual behavior change through relationships between organizations that depends on the combination of resources and content expertise of participating organizations to make a larger community change. This may be accomplished through public awareness and educational campaigns or by targeting high-risk groups for certain interventions. Finally, the fifth level is **Public Policy.** Public policy is the highest level of change that may influence individual behavior and health for a wider number of individuals. Public policy may be implemented at the national, state, or local levels with the intent of improving health and well-being. An example of this is the enactment of the Affordable Care Act that has opened the door for an increased number of individuals to obtain access to health services. Another example may be the imposed cigarette tax, which has led to a decrease in the number of adolescents who smoke.

For every 10% increase in cigarette cost, there is a 7% reduction in the number of youth who smoke.

Health Promotion as a Strategic Issue

Multiple gaps in disease prevention in Linn County were identified throughout the community health assessment. Highlight of these gaps provide a unique opportunity for the local public health system to strategically target health promotion efforts to improve the health of the community moving forward. As noted under the Behavioral Health section, there are a high number of adults engaging in binge drinking and adolescents who report using illicit drugs, alcohol, and tobacco. At the same time, there is a lack of education in the community about new and emerging drug trends and prevention within the school system. Similarly, sexual health education within the school system and across Linn County schools is inconsistent if available at all. This is particularly troubling in relation to the increasing sexually transmitted infections being seen in the community. Despite a decrease in Gonorrhea, rates of Chlamydia, Syphilis, and HIV continue to increase.

Other preventable disease issues that arose out of the community health assessment include a need for increased infection prevention particularly within the school and childcare system. However, the most prevalent disease-related issue that emerged from the assessment is increased rates of chronic disease, particularly associated with obesity and diabetes. Overweight and obesity rates are increasing among both adults and adolescents. Among adults the percentage of obese adults is now equal to that of adults who are overweight, which is extremely troubling. Likewise, over the past five years the number of kindergarteners who are considered overweight has increased and surpassed that of students in the 5th grade. In addition to an increased number of individuals considered overweight/obese, there are also a low percentage of individuals who consume fruits/vegetables and engage in the recommended levels of physical activity. The affordability and lack of knowledge to prepare healthy meals was cited as potential barriers to healthy eating. Lack of sidewalks and walkability of the community was also cited related to engaging in physical activity.

With the lack of funding and resources for health education and promotion, it is essential that the partners within the local public health system combine resources and information to prevent disease within Linn County. Currently, individual organizations within the community collect valuable health data. However, the partnering agencies seldom know what other organizations have available as the information is rarely made available. This lack of sharing between partners has led to a duplication of efforts and information.

Based on the data obtained through the assessment, the Together! Healthy Linn Steering Committee selected three goals that fall under the overarching strategic question **"How can the local public health system promote disease prevention and well-being through the utilization of health education in the community?"** The three goal areas selected include:

1. Data Sharing
2. Community Education
3. Chronic Disease

Data Sharing

One way the local public health system can foster disease prevention and health promotion is through the utilization of health education in the community. This can be achieved by increasing data sharing and effective use of technology among the local public health system in order to address emerging health trends.

One important function of the local public health system is to share data and information regarding the health of the community. Data collected on health-related behaviors, diseases, illnesses, and injuries can help identify and address health problems more effectively. These types of data are essential for disease outbreak investigation, research, program development, and tracking chronic disease trends. In addition, information about the social factors that influence health can help frame a better understanding of the issues that impact health outcomes.

In Linn County, data sources are plentiful, but often divided across multiple systems and sectors with distinct owners. This siloed data collection and tracking among partners causes duplication of efforts and slows dissemination of necessary community health information. Through a data sharing agreement community partners can work together to identify trending health information in order to gain insight into and promote the health of Linn County residents.

Benefits of Data Sharing

- Early Detection of infectious disease outbreaks
- Improved tracking of chronic disease trends
- Builds trust and collaboration among partners
- Decreases duplication efforts among community partners

Challenges of Data Sharing

- Concerns regarding privacy and security
- Competition among agencies
- Lack of formal data sharing agreement
- Evolving technologies such as Electronic Medical Records require a new understanding of sharability

Health Promotion

Goal #1	**Increase data sharing and effective use of technology among the local public health system in order to identify and address emerging health trends.**	
Objective 1-1	By July 1, 2016 the Together! Healthy Linn steering committee will approve an initial list of community health data and GIS mapping resources available within the local public health system.	
	Strategy 1-1.1	Engage community and GIS partners
	Strategy 1-1.2	Linn County Public Health will develop a draft of categorized data sources
	Strategy 1-1.3	Subcommittee and community agencies will add sources to the list
	Strategy 1-1.4	Steering committee will review list and identify additional data sources or data points
Objective 1-2	By February 9, 2017 a written process for data sharing among partners within the local public health system will be established	
	Strategy 1-2.1	Create a data sharing document written by Linn County Attorney's office and shared among community partners
	Strategy 1-2.2	Draft written process for data sharing, which may be augmented by community partners to meet the legal needs of the partner.
Objective 1-3	By January 1, 2019 community health data will be shared with community partners.	
	Strategy 1-3.1	Obtain signed data sharing documents from participating community partners
	Strategy 1-3.2	Participating community partners will submit data to a centralized data hub at a specified time annually
	Strategy 1-3.3	Data will be categorized by data type and level of confidentiality (confidential data may only be made available in aggregated form in order to protect private health information)
	Strategy 1-3.4	All partners will identify significant emerging trends that need to be shared with all partners within the local public health system

Community Education

Community health education is a process that promotes health and prevents disease in the community by informing the population. Prevention of disability and premature death through education-driven behavior change is a key function within the spectrum of health promotion. The goal of community education is to reach the greatest number of individuals possible with health education messages in order to improve health and enhance quality of life.

Change originates at the community level through dissemination of information and health education regarding positive behavior change. The local public health system can work together to provide community based educational programs that have the ability to reach people outside of the traditional health care settings. Settings such as schools, worksites, and rural areas can be utilized to disseminate health messages and encourage optimum behavioral change. Two areas where the local public health system can generate positive impact through community based education are substance abuse prevention and sexual health education.

Substance Abuse Prevention through Community Education

The local public health system can increase the number of people reached through substance abuse prevention education. Some of the most innovative and effective approaches to dealing with adult and adolescent substance problems begin at the community level. Substance abuse prevention and education programs aim to prevent individuals, particularly adolescents from the harmful physical, social, and psychological consequences of drug and alcohol use or abuse. Substance abuse prevention education, which can be implemented in communities, schools, or faith-based settings seek to educate people about the dangers posed by drugs and alcohol and aim to change the behaviors that may lead to their abuse.

Sexually Transmitted Infection Prevention through Community Education

The local public health system can prevent disease through community education by working together to reduce the positivity rate of sexually transmitted infections and ensure sexual health education is disseminated appropriately in the community. Providing sexual health information through community education encourages changing sexual behaviors that place persons at risk for sexually transmitted infections.

Health Promotion

Goal #2	**Decrease preventable diseases through health education in the community**	
Objective 2-1	By January 1, 2019 increase the number of people reached through substance abuse prevention education by 2%	
	Strategy 2-1.1	Collect data from Mercy, UnityPoint, ASAC and district school systems for types of substance abuse education being provided and number of individuals reached
	Strategy 2-1.2	Identify barriers related to healthy decision making regarding substances.
	Strategy 2-1.3	Expand upon existing school based and community substance abuse education using evidence based curriculum
	Strategy 2-1.4	Provide education to the community regarding the current status of substance issues and how the issues may be prevented and addressed by targeted audiences (policy makers, healthcare and service providers, and community members)
	Strategy 2-1.5	Implement social marketing campaigns
Objective 2-2	By January 1, 2019 stabilize the positivity rate of Chlamydia, Syphilis, and HIV	
	Strategy 2-2.1	Assess the sexual health education curriculum being provided in middle and high schools across Linn County
	Strategy 2-2.2	Increase the number of middle and high schools who provide consistent sexual health education to students
	Strategy 2-2.3	Implement social marketing campaigns to reduce stigma, increase awareness, and promote testing for sexually transmitted infections
	Strategy 2-2.4	Increase testing among high risk groups

Chronic Disease

Chronic diseases such as diabetes, heart disease, stroke, and cancer are among the most common, costly and preventable health issues. The burden of chronic disease is associated with reduced quality of life, poor health outcomes, increased healthcare needs, and higher healthcare spending. The prevalence of death and disability due to chronic disease represents a significant growing threat to Linn County.

Chronic disease prevention aims to ensure a lifetime of well-being. It involves many partners and a spectrum of preventative activities and education that go beyond health care and traditional public health approaches. Chronic disease prevention includes preventing disease from occurring as well as decreasing the severity and impact of the condition once it occurs.

One of the fastest growing chronic diseases, diabetes, is a complex disease that requires a multifaceted healthcare approach. Individuals with a diagnosis of diabetes must engage in lifestyle modifications that require healthy food consumption and physical activity. Diabetes also requires education, regular physical examination, consistent evaluation of blood levels and medication management. All of these multilayered aspects of disease management for diabetes make this a complicated and confusing diagnosis.

The leading cause of diabetes to date is being overweight or obese. Obesity is also one of the primary drivers of other forms of chronic disease. Individuals who suffer from obesity often suffer from multiple adverse health conditions and have a lower life expectancy than individuals of normal weight. Lifestyle modification is the most substantial intervention for overweight and obesity. Diet adjustment and physical activity are the two most important factors in controlling obesity and preventing or delaying diabetes diagnosis. This emphasizes the importance of timely diagnosis in order for lifestyle modifications to be implemented early in the disease process. Physically active diabetics develop fewer complications, take less medication and have fewer doctor visits than noncompliant diabetics.

Health Promotion

Goal #3	**Decrease the incidence of chronic disease in Linn County**	
Objective 3-1	By January 1, 2019 the percentage of residents who are overweight or obese will be stabilized	
	Strategy 3-1.1	Target high concentration areas of high risk groups for outreach opportunities
	Strategy 3-1.2	Identify barriers for vulnerable population related to access of healthy foods and physical activity
	Strategy 3-1.3	Increase opportunities throughout the community to engage in physical activity based on assessment information and best practice methodology
	Strategy 3-1.4	Increase the availability of affordable healthy foods
	Strategy 3-1.5	Provide education on healthy food preparation
	Strategy 3-1.6	Educate and support healthcare providers in engaging in uncomfortable conversations with clients regarding weight management
	Strategy 3-1.7	Educate community partners (including elected bodies) for scope of issue and barriers
	Strategy 3-1.8	Investigate and assess policies that support healthy living
Objective 3-2	By January 1, 2019 the percentage of adults with type 2 diabetes will be stabilized.	
	Strategy 3-2.1	Identify and assess current diabetes education and outreach services provided in the county.
	Strategy 3-2.2	Conduct a comprehensive community assessment to identify those with diabetes and those at a higher risk for developing diabetes.
	Strategy 3-2.3	Conduct targeted A1C screenings to support current diabetics and identify at-risk individuals and those who are unaware of their diabetic status.

	Strategy 3-2.4	Work with providers to improve early identification and referral of at-risk patients (pre-diabetic) to applicable services
	Strategy 3-2.5	Educate providers and pharmacists on support services available to help patients remove barriers to diabetes management
	Strategy 3-2.6	Conduct outreach services to provide diabetes education to diabetics and their support system (Families, Friends, Worksites, etc.)
Objective 3-3	By January 1, 2019 the mortality rate attributed to heart disease and stroke among adults will be stabilized.	
	Strategy 3-3.1	Identify and assess current heart disease and stroke education provided in the county.
	Strategy 3-3.2	Support and enhance current heart disease and stroke programs that prevent risk factors (high blood pressure, high blood cholesterol, tobacco use, physical inactivity, and poor nutrition)
	Strategy 3-3.3	Conduct outreach services to provide additional opportunities for blood pressure and cholesterol screening among at-risk populations
	Strategy 3-3.4	Work with local employers to promote healthy worksites
	Strategy 3-3.5	Work with local employers to ensure the availability automatic external defibrillators and training of staff on how to use the device

Reference

American Foundation for Suicide Prevention. (2015). Facts and figures. Retrieved November 25, 2015, from https://www.afsp.org/understanding-suicide/facts-and-figures

Center for Behavioral Health Statistics and Quality. (2015). Behavioral health trends in the United States: Results from the 2014 national survey on drug use and health. SAMHSA. Retrieved November 24, 2015, from http://www.samhsa.gov/data/sites/default/files/NSDUH-FRR1-2014/NSDUH-FRR1-2014.pdf

Centers for Disease Control and Prevention. (2014). Major findings. Injury Prevention & Control: Division of Violence Prevention. Retrieved December 1, 2015, from http://www.cdc.gov/violenceprevention/acestudy/findings.html

Centers for Disease Control and Prevention. (2015). Suicide – Facts at a glance. National Center for Injury Prevention and Control. Retrieved November 12, 2015, from http://www.cdc.gov/violenceprevention/pdf/suicide-datasheet-a.pdf

Substance Abuse and Mental Health Service Administration. (2015). Prevention of substance abuse and mental illness. Retrieved November 24, 2015, from http://www.samhsa.gov/prevention

U.S. Department of Health and Human Services. (2015). Mental health myths and facts. Retrieved November 11, 2015, from http://www.mentalhealth.gov/basics/myths-facts/

World Health Organization. (2015). Substance abuse. Retrieved November 25, 2015, from http://www.who.int/topics/substance_abuse/en/