Healthy Louisville 2020

Creating a Healthier City

Greg Fischer
Mayor

mayor's HealthyHometown
GOOD FOR YOUR BODY, GREAT FOR EVERYBODY.

LaQuandra S. Nesbitt, MD, MPH
Director

SPORTS
Louisville
COMMISSION

TABLE OF CONTENTS

Acknowledgements

Letter from Mayor Greg Fischer

Letter from Dr. LaQuandra Nesbitt

Executive Summary

Healthy Louisville 2020 Goals

Overview

Access to Healthcare	13
Cancer Prevention and Screening	15
Chronic Disease Prevention and Screening	20
Healthy Neighborhoods and Healthy Homes	24
Healthy Mothers and Healthy Babies	30
HIV Prevention and Screening	36
Safe and Healthy Neighborhoods	38
Mental and Behavioral Health	40
Obesity Prevention	43
Oral Health	46
Public Health Infrastructure	48
Social Determinants of Health	51
Substance Abuse	54

Data Notes

Appendix

ACKNOWLEDGEMENTS

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OFFICE OF THE MAYOR
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GREG FISCHER
MAYOR

February 19, 2014

Dear Friends,

I am pleased to share with you *Healthy Louisville 2020: Creating a Healthier City,* a roadmap for improving the health of our city by 2020. As I begin my fourth year as the Mayor of Louisville, I remain focused on the three core themes of my Administration: (1) becoming a community of life-long learners and a place for great jobs, (2) becoming a healthier community, and (3) becoming an even more compassionate community. I also believe that we must continue to find opportunities to be innovative and take a step back from our daily work to create a strategic plan for our city. The Mayor's Healthy Hometown Movement is one program that I have identified as a key opportunity for us to shift gears and broaden our approach to advancing our collective health.

The current best practice for improving health and creating healthier communities is the "health-in-all-policies" approach. This approach requires that every sector understands how their policies, programs, and practices affect the individual's ability to "be healthy." In March 2012, I convened the newly created Mayor's Healthy Hometown Movement Leadership Team, modeled after the National Prevention Council. The Leadership Team brings together key leaders throughout Metro Government who oversee organizations that impact residents' ability to make healthy choices in their homes, child care facilities, educational facilities, workplaces, and neighborhoods. This Mayoral initiative is designed to dramatically improve the health of Metro Louisville through the development and implementation of policies, programs, and practices that address the social determinants of health, such as education, socioeconomic status, and access to resources.

Furthermore, our city's success depends on government working with its many partners. The Mayor's Healthy Hometown Movement Community Coalition was restructured in 2012 and is dedicated to transforming community and public health across Louisville. It embraces a focus on prevention through a health-in-all-policies perspective, facilitates active community engagement, and prioritizes equity. With approximately 70 members representing more than 50 community-based organizations, faith-based groups, and large employers, the Community Coalition developed a strategic plan that includes evidence-based approaches to improving the health of our community. Those recommendations are reflected in the *Healthy Louisville 2020* report.

Improving the population's health is a tremendous undertaking. It is a challenge we embrace in order to make Louisville a competitive, 21st century city. Our hope is that a focus on improving population health outcomes will help to engage the citizenry, community partners, community foundations, and businesses in a strategic way that brings about sustainable change and moves us forward in our quest to become the healthiest city in America!

Sincerely,

Greg Fischer
Mayor

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DEPARTMENT OF
PUBLIC HEALTH AND WELLNESS

February 19, 2014

Greetings!

Great doctors and hospitals help to keep us healthy and treat our illnesses when we do get sick; however, our health is influenced by so much more than the healthcare we receive. To improve the health of our community, we must extend our focus beyond the reach of the healthcare system. In order for all who live, work, learn, play, and worship in our beloved city, we must create and foster environments that make the healthy choice the easiest choice.

Oftentimes in discussions on how to improve health, we focus on healthcare and behavior. For example, to improve obesity rates, most would suggest increasing our physical activity/exercise and eating healthier foods as the best solution. For people to do those things, they must live in communities where healthy food is readily available and where it is safe and easy to be active. In the case of tobacco use, smoking cessation classes are a great way to provide support to individuals who are quitting smoking; however, the most successful way to reduce the overall number of people who smoke is to increase the cost of tobacco products.

While we have many great health programs in Louisville, we still have a long way to go to move up in the health rankings. We are responsible for changing our position on those lists! *Healthy Louisville 2020: Creating a Healthier City* provides targets for community health as well as evidence-based and promising practices that could be implemented to move us toward our goals. This document is not simply a strategic plan for Louisville Metro Public Health and Wellness (LMPHW), but rather a shared community agenda to guide behavior and decision making for residents, city officials, community organizations, academic partners, business leaders, and the faith-based community over the next six years.

For Spring 2014, we will launch the *Healthy Louisville* community dashboard. The dashboard will allow us to track our progress toward achieving our health goals and will also serve as a way for community partners to communicate their ideas and efforts with LMPHW and with each other. We will be able to share information regarding best practices and funding opportunities as well as ongoing programs here in Louisville.

The vision of LMPHW is to create a healthy Louisville by decreasing disease and death, eliminating disparities in health and healthcare, and giving everyone the chance to live a healthy life. Please join us in creating a healthier city!

Sincerely,

LaQuandra S. Nesbitt MD, MPH

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EXECUTIVE SUMMARY

"Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." – World Health Organization

LMPHW mission: To promote health and wellness; prevent disease, illness, and injury; and protect the health and safety of Metro Louisville residents and visitors.

According to a recent report by the Greater Louisville Project, "*Building a Healthier Louisville,*" Louisville ranks 10th among 15 peer cities in health outcomes. The report further states that improving those outcomes will directly improve the quality of life, prosperity, and competitiveness of our city.

***Healthy Louisville 2020* (HL 2020)** serves as a call to action to guide us in that direction.

Through the collection and analysis of data by the Louisville Metro Department of Public Health and Wellness (LMPHW), HL 2020 establishes benchmarks and sets measurable target goals for a community-wide agenda aimed to help move Louisville towards being a healthier city, decreasing disparities in health outcomes and achieving equity in all aspects of health. Using *Healthy People 2020* as a framework, HL 2020 identifies indicators that are specific and of priority to the city's demographics.

Following the MAP-IT model as outlined in *Healthy People 2020*, LMPHW engaged community partners in a comprehensive planning process. Stakeholders were recruited from the Mayor's Healthy Hometown Community Coalition and tasked with prioritizing health needs and setting goals for improving the health status of Louisville (see appendix).

In addition to highlighting the city's leading health objectives, this report provides information on some of the existing programs in Louisville Metro related to each objective, as well as additional programmatic and policy recommendations to help achieve the HL 2020 target goals.

The recommendations are based upon three major characteristics: **Prevention**, **Evidence-Based Interventions**, and **Health in All Policies**:

1. Research has shown that ***prevention*** is the key for healthy communities.
2. Only programs that are ***evidence-based*** and/or outcome driven should be adopted and implemented.
3. Using a "***health-in-all-policies***" approach by including all sectors of our community in planning and policy development, Metro Government is committed to improving Louisville's health outcomes.

HEALTHY LOUISVILLE 2020 GOALS

- **Access to Healthcare**

Goal: All Louisville Metro residents will have health insurance coverage and a medical home

- **Cancer Prevention and Screening**

Goal: Decrease the incidence and death rates for all cancers in Louisville Metro

- **Chronic Disease Prevention and Screening**

Goal: Prevent, detect, and reduce risk factors that cause diabetes, coronary heart disease, and stroke among Louisville Metro residents

- **Healthy Homes and Healthy Neighborhoods**

Goal: Reduce the prevalence of and death rate related to tobacco use and exposure to secondhand smoke in Louisville Metro

- **Healthy Mothers and Healthy Babies**

Goal: Improve the health and well-being of mothers and babies in Louisville Metro

- **HIV Prevention and Screening**

Goal: Reduce human immune-deficiency virus (HIV) infection among Louisville Metro residents

- **Injury and Violence Prevention**

Goal: Decrease the prevalence of violence and unintentional injuries in Louisville Metro

- **Mental and Behavioral Health**

Goal: Improve the mental and emotional well-being of Louisville Metro residents

- **Obesity Prevention**

Goal: Reduce the proportion of Louisville Metro residents that are overweight and obese

- **Oral Health**

Goal: Improve the oral health of Louisville Metro residents by reducing tooth decay and gum disease

- **Public Health Infrastructure**

Goal: Ensure LMPHW has the infrastructure to provide Louisville Metro residents public health services at an optimal level on a daily basis as well as during emergencies

- **Social Determinants of Health**

Goal: Create social and physical environments that promote good health for all Louisville Metro residents

- **Substance Abuse**

Goal: Reduce the number of Louisville Metro adults and youth engaging in risky behaviors such as binge drinking and drug abuse

OVERVIEW

Healthy Louisville 2020 (HL 2020) is a shared community health agenda for Louisville Metro that outlines measurable goals and objectives aimed to make us healthier by 2020. By collecting and analyzing national, state, and local data, we identify priorities, establish benchmarks, and set target goals for improving the health status of those who live, work, and play in Louisville Metro.

HL 2020 aims to guide Louisville Metro towards becoming a healthier city and narrowing the gap in health disparities so that all residents have a chance to live a healthy and productive life regardless of their income, education or ethnic background.

Using *Healthy People 2020* and *Healthy Kentucky 2020* as models, HL 2020 identifies 13 focus areas designed to address some of Louisville Metro's most pressing, as well as emerging, public health issues. Within those focus areas there are 47 indicators, each having a baseline and target measure.

HL 2020 focus areas were selected based on the following criteria:

1) Health outcomes that will have the greatest impact on morbidity, mortality and quality of life;
2) Root causes of poor health outcomes, in addition to traditional public health and health care access issues;
3) Health conditions most heavily impacted by policy, systems, environmental changes, as well as individual behaviors; and
4) Availability and accuracy of data sources.

Healthy Louisville 2020 Focus Areas:

Access to Healthcare
Cancer Prevention and Screening
Chronic Disease Prevention and Screening
Healthy Homes and Healthy Neighborhoods
Healthy Mothers and Healthy Babies
HIV Prevention and Screening
Injury and Violence Prevention
Mental and Behavioral Health
Obesity Prevention
Oral Health
Public Health Infrastructure
Social Determinants of Health
Substance Abuse

As with health, many of the HL 2020 priority areas are interconnected. Reaching for one health indicator can facilitate meeting targeted goals in many other indicators. For instance, a plan to reduce obesity will also contribute to the reduction of chronic illnesses, such as heart disease, stroke, diabetes, and cancer.

In addition to highlighting the city's leading health objectives, this report provides information on some of the Louisville Metro programs that support these objectives, as well as additional programmatic and policy recommendations aimed to achieve the HL 2020 target goals.

The recommendations are based upon three major characteristics: **Prevention**, **Evidence-Based Interventions**, and a **Health-in-All-Policies** approach.

1. Research has shown that *prevention* is the key for healthy communities. Future actions should focus on factors that promote health and wellness rather than solely on the treatment of disease once it occurs.
2. Only programs that are *evidence-based* and/or outcome driven should be adopted and implemented. As such, this report provides recommendations for policies, programs, or practices that have been proven to be successful and create meaningful change.
3. Under the leadership of Mayor Greg Fischer and Health Director Dr. LaQuandra S. Nesbitt, Louisville Metro Government has adopted and incorporated a *health-in-all policies* approach to addressing poor health outcomes. This means that improving health involves much more than just healthcare systems. When health and well-being are considered by all sectors of our community in planning and policy development, it leads to improved health for all.

KEEP WALKING!
THE MAYOR'S MILE
start!
American Heart Association
Learn and Live
Kindred

DETERMINING OUR GOALS AND OBJECTIVES

Source: www.HealthyPeople.gov

The process for identifying and achieving the HL 2020 goals can be compared to the *Healthy People 2020* MAP-IT framework.[1] Similar to MAP-IT, the Louisville Metro Department of Public Health and Wellness (LMPHW) mobilized and engaged community stakeholders to prioritize the community's health needs and identify evidence-based strategies to improve them. These stakeholders were recruited from members of the Mayor's Healthy Hometown Movement (MHHM) Community Coalition (see appendix). The collection and analysis of data to assess the health status of the community is an essential function of public health and is performed routinely by LMPHW staff. Health data was shared with stakeholders from the MHHM Community Coalition to help determine Louisville's existing and emerging health issues. As a result, key recommendations from the MHHM Community Coalition's strategic plan were incorporated into HL 2020. Throughout this process, MHHM will continue to serve as the community change agent by planning and implementing evidence-based and best practices to ensure that HL 2020 goals are met.

[1] U.S. Department of Health and Human Services. Healthy People 2020. (2013). *MAP-IT: A Guide to Using Healthy People 2020 in Your Community*. Retrieved from http://www.healthypeople.gov/2020/implement/MapIt.aspx. Accessed November 2013.

HEALTHY LOUISVILLE 2020 FOCUS AREAS

The health status of Louisville Metro residents often ranks poorly when compared to other jurisdictions. A report released by the Greater Louisville Project found that Louisville ranked 10th among 15 "peer" cities in health outcomes.[2] Throughout this report, data comparisons are provided between Louisville and the state, U.S., and, where data is available, one of those "peer" cities, Nashville, TN.

Access to Healthcare

Goal: All Louisville Metro residents will have health insurance coverage and receive care in a patient-centered medical home

Limited access to healthcare negatively impacts the ability of a person to reach his or her full potential and quality of life. Those who need healthcare but do not receive it are more likely to be diagnosed with health conditions at a later stage and to have more complications of their chronic conditions. Many factors affect access to healthcare, such as the location and operation of the physicians' practices, transportation, and cultural barriers; however, the single most important factor is health insurance coverage.

In 2010, 17% of Louisville Metro adults reported having no health insurance.[3] Among those adults who do have health insurance coverage, 10% reported not having a medical provider. This suggests that one out of every 10 Louisville Metro residents may not use the preventive services offered by their health insurance plans and that many of their chronic conditions may be untreated.

[2] "Building a Healthier Louisville." Greater Louisville Project. 2013. Retrieved from http://greaterlouisvilleproject.org/annual-city-reports/current-report/. Accessed November 2013.
[3] 2010 Kentucky Behavioral Risk Factor Survey, Obtained from Kentucky Department for Public Health.

Programs

The Patient Protection and Affordable Care Act (ACA) is expected to greatly decrease the number of uninsured. As of January 1, 2014, Kentucky's Medicaid program was expanded to cover individuals under 65 years of age who have incomes at or below 133% of the federal poverty level which is a monthly income of $1,273 for an individual or a monthly income of $2,610 for a family of four.[4] Also beginning in 2014, people in Kentucky whose income is between 134% and 400% of the poverty level are eligible for premium and cost-sharing subsidies for health insurance through a state-operated health benefit exchange called "kynect".[5]

The Louisville Metro Board of Health established an Affordable Care Act Steering Committee of healthcare and public health industry leaders to collaborate and coordinate the many aspects of ACA and to ensure successful local implementation. The steering committee has four subcommittees: enrollment, education and health literacy, workforce capacity, and evaluation and outcomes. The enrollment committee consists of representatives from healthcare, social service, government, and community-based organizations and meets regularly to share and coordinate plans around education and enrollment efforts. A local education and awareness campaign was created to emphasize that even with health insurance, individuals will still need to practice positive health behaviors and receive their healthcare in the appropriate setting at the appropriate time.

HL 2020 Targets:

- Decrease percentage of uninsured Louisville Metro residents from 17% to 0%.
- Increase the percentage of people who have a primary care provider from 89.7% to 99% or more of the Louisville Metro population.

Recommendations

- Raise public awareness regarding changes in eligibility criteria for Medicaid and the financial subsidies for Qualified Health Plans (QHPs) through "kynect."
- Ensure all Louisville Metro residents eligible for Medicaid are enrolled as part of the expansion under ACA by coordinating activities between the Kentucky Regional Planning and Development Agency (KIPDA), safety net providers, and social support agencies.
- Advocate for maintenance and adequate funding of the Prevention and Public Health Fund created by ACA.
- Identify zip codes with a shortage of primary care providers and create incentives (i.e., loan forgiveness programs) to increase the workforce in underserved areas.

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[4] 2013 U.S. Poverty Guidelines. U.S. Department of Health and Human Services. Retrieved from http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Eligibility/Downloads/2013-Federal-Poverty-level-charts.pdf. Accessed December 2013.

[5] "Explaining Health Care Reform: Questions About Health Insurance Subsidies." Kaiser Family Foundation. July 1, 2012. Accessed December 2013.

Cancer Prevention and Screening

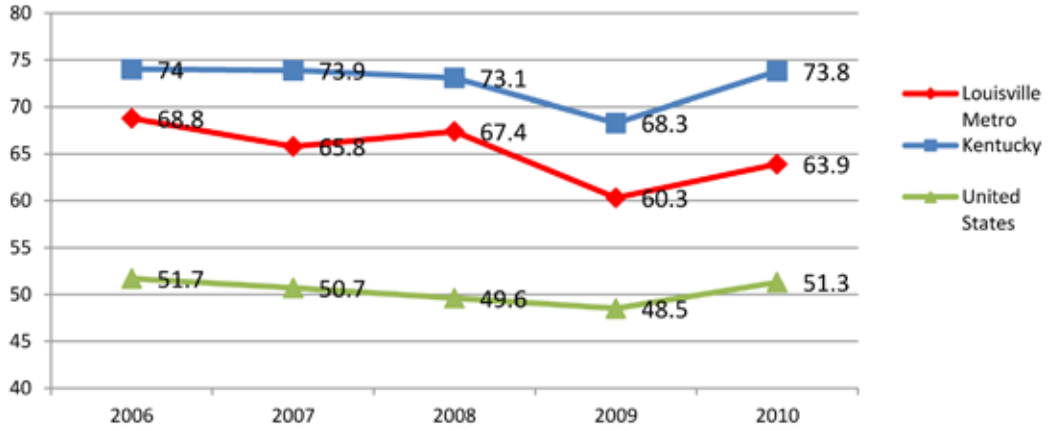
Goal: Decrease the incidence and death rates for all cancers in Louisville Metro

Lung Cancer

Lung cancer is the leading cause of cancer deaths and the second most diagnosed cancer in both men and women in the U.S.[6] In Louisville Metro, lung cancer death rates have declined by approximately 7.4% since 2006. Smoking is considered to be the primary risk factor for lung cancer, attributing to 80-90% of all lung cancer deaths.[7] Adults who are exposed to secondhand smoke increase their risk of developing lung cancer by 20-30%.[8] Many cancer-causing and toxic chemicals are more concentrated in secondhand smoke than in the smoke inhaled by smokers.[9]

Age-Adjusted Death Rates from Lung Cancer, 2006 - 2010

Death rates per 100,000 population



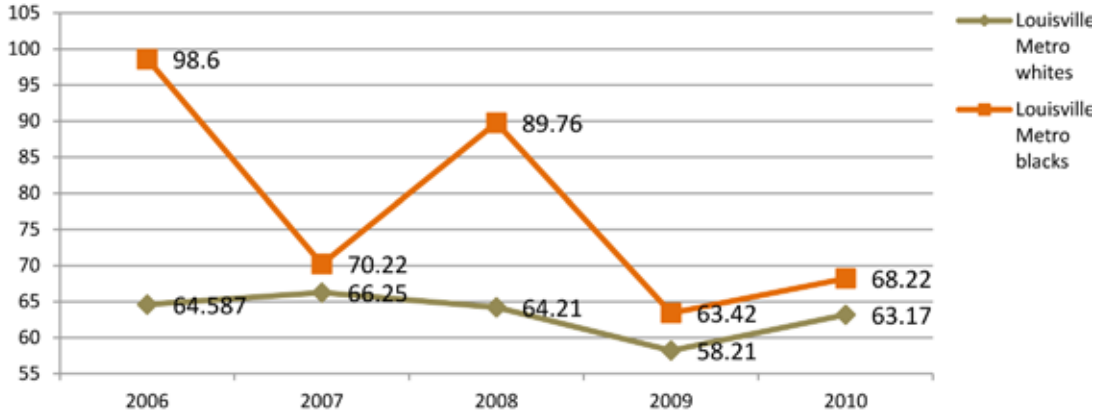
Source: Kentucky Cancer Registry

[6] Cancer Prevention. U.S. Centers for Disease Control and Prevention. Retrieved from http://www.cdc.gov/cancer/dcpc/prevention/. Accessed December 2013.
[7] Health Effects of Cigarette Smoking. U.S. Centers for Disease Control and Prevention. Retrieved from http://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/. Accessed December 2013.
[8] Ibid.
[9] Retrieved from http://www.surgeongeneral.gov/library/reports/secondhandsmoke/factsheet9.html. Accessed December 2013.

Disparities exist among racial and ethnic populations. The average death rate for lung cancer for 2006-2010 was 63.3 per 100,000 population for whites, compared to 77.7 for blacks.

Disparities in Lung Cancer Death Rates, 2006 - 2010

Death rates per 100,000 population



Source: Kentucky Cancer Registry

Breast Cancer

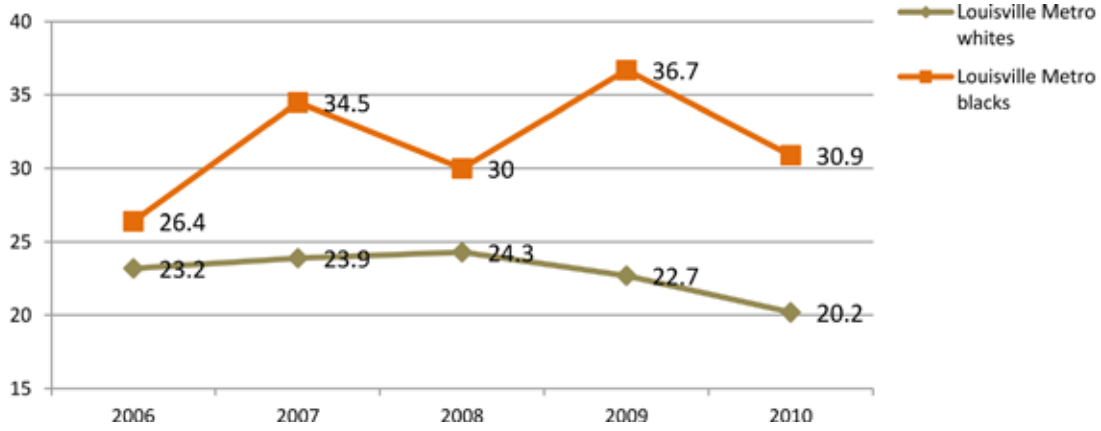
Breast cancer is the second leading cause of cancer deaths in the U.S., as well as in Louisville Metro. Overall, white women are more likely to develop breast cancer than black women. However, incidence rates of breast cancer among black women younger than 45 years of age are higher compared to white women of the same age group. Asian, Hispanic, and Native-American women have shown to have a lower risk of developing and dying from breast cancer.[10]

Due to advances in early detection, diagnosis, and treatment, overall death rates from breast cancer are on the decline. However, Louisville Metro's average death rate for 2006-2010 was higher than the national rate, 24.4 and 22.6 per 100,000 population respectively.[11] Moreover, racial and ethnic disparities still persist. In Louisville Metro, while breast cancer rates for white women decreased by 13% from 2006 to 2010, rates for black women increased by 17% during the same time period.[12]

Screening for breast cancer (mammography) can detect cancer at an early stage, which decreases the chances of dying from the disease. Mammography screening rates have been stable for the past 10 years. In 2010, 79.5% of women over 50 years of age reported receiving screenings within the past two years.[13]

Disparities in Age-Adjusted Death Rates from Breast Cancer, 2006 - 2010

Death rates per 100,000 population



Source: Kentucky Cancer Registry

[10] Basic Information about Breast Cancer. U.S. Centers for Disease Control and Prevention. Retrieved from http://www.cdc.gov/cancer/breast/basic_info/index.htm. Accessed December 2013.
[11] Obtained from Kentucky Cancer Registry. http://cancer-rates.info/ky/index_mort.php. Accessed November 2013.
[12] Ibid.
[13] KY Behavioral Risk Factor Surveillance Survey, Kentucky Department for Public Health. Accessed December 2013.

Cervical Cancer

Cervical cancer is a preventable disease most commonly caused by Human Papillomavirus (HPV). The HPV vaccine can prevent transmission of some types of HPV and subsequently, cancer. Due to advances in screening tests such as the Pap smear, precancerous lesions can be detected and treated thus preventing the development of cervical cancer.

While overall cervical cancer death rates have been declining in the U.S., racial and ethnic disparities persist. In Louisville Metro, the disparities follow a similar pattern in which the death rate for black women (4.7) is more than double that of white women (1.9) for 2006-2010.[14]

Prostate Cancer

Prostate cancer is the most common cancer in men of all races and ethnicities. In 2010, the rate of black men who were diagnosed and died from prostate cancer was higher than the rate of white men nationally.[15] In Louisville Metro, the average prostate cancer death rates between 2006 and 2010 for black men (48.9) were more than double that for white men (21.0).

Colorectal Cancer

According to the National Cancer Institute, Kentucky ranks 4th in the nation with an average colorectal cancer death rate of 19.3 for the years 2006-2010 (the average national rate was 16.4).[16] In Louisville Metro, overall death rates from colorectal cancer were lower compared to the state (18.9). However, a disparity gap exists with a colorectal cancer death rate of 25.2 for blacks, compared to 17.9 for whites (2006-2010).

Almost 60% of deaths from colon cancer could be prevented if everyone age 50 and older were screened regularly.[17] Screening is done mostly by colorectal endoscopy (colonoscopy or sigmoidoscopy). The Fecal Occult Blood Test (FOBT) or Fecal Immunolchemical Test (FIT) are home-screening test kits that also can be used. While screening for colorectal cancer has increased in the past decade, disparities still remain among the black and Hispanic populations.

Programs

LMPHW coordinates the Kentucky Women's Cancer Screening Program (KWCSP) throughout Louisville Metro. Funded by state, federal, and private funds, this program provides breast and cervical cancer education, screening, and follow-up services. KWCSP provides low-cost mammograms and Pap tests to women based on age, income, and health insurance status. Women 40-64 years of age who meet required guidelines are eligible for screenings every year.

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[14] Obtained from Kentucky Cancer Registry. http://cancer-rates.info/ky/index_mort.php. Accessed November 2013.

[15] National Cancer Institute. Surveillance, Epidemiology and End Results Program. Retrieved from http://seer.cancer.gov/csr/1975_2010/browse_csr.php?section=6&page=sect_06_table.27.html. Accessed December 2013.

[16] National Cancer Institute. Surveillance, Epidemiology and End Results Program. Retrieved from http://seer.cancer.gov/csr/1975_2010/browse_csr.php?section=6&page=sect_06_table.27.html. Accessed December 2013.

[17] National Cancer Institute. Cancer Trends Progress Report 2010/2011. Retreived from http://progressreport.cancer.gov/index.asp. Accessed December 2013.

The Kentucky Colon Cancer Screening Program (KCCSP) is a population-based public health initiative operated by LMPHW in partnership with the Kentucky Department for Public Health. KCCSP's mission is to reduce new cases and deaths associated with colon cancer through the provision of FIT and colonoscopy. In collaboration with the Colon Cancer Prevention Project and Family Health Centers, residents with positive FIT tests living below 250% of the federal poverty level and 50-64 years of age are eligible to receive colonoscopies.

LMPHW works with the Kentucky Cancer Program and dozens of community volunteers to facilitate Cooper Clayton smoking cessation classes. Cooper Clayton is a comprehensive behavioral smoking cessation program that includes education, skills training, social support and access to nicotine replacement products. Demand for classes has increased as local employers implement smoke-free campuses and multi-unit housing. Most recently, Metro Parks created smoke-free zones around children's play areas in three Olmsted Parks and will expand to include 11 additional parks and five Metro pools in 2014.

HL 2020 Targets:

- Reduce overall cancer death rates from 190.7 per 100,000 population to 171.7 per 100,000 population.
- Reduce lung cancer death rate from 63.9 per 100,000 population to 57.5 per 100,000 population.
- Reduce female breast cancer death rates from 22.6 per 100,000 population to 20.3 per 100,000 population.
- Reduce prostate cancer death rates from 19.6 per 100,000 population to 17.5 per 100,000 population.
- Reduce cervical cancer death rates from 3.6 per 100,000 population to 3.2 per 100,000 population.
- Increase percentage of mammography screenings among women 50-75 years of age from 79.5% to 87.5%.
- Increase percentage of colorectal cancer screenings among adults 50-75 years of age from 65.7% to 72.3%.

Recommendations

- Increase awareness of the HPV vaccine for both males and females through outreach to healthcare providers, schools and families.
- Expand smoke-free zones in outdoor spaces to protect people from secondhand smoke.
- Increase the availability of smoke-free multi-unit public and private rental housing.
- Advocate for the maintenance of state funding for cancer screening programs, particularly for individuals who will remain uninsured after Medicaid expansion in 2014.
- Advocate for increasing Medicaid reimbursement rates to increase physician participation in the Medicaid program to help eliminate barriers to accessing cancer screening and treatment for low-to-moderate income residents.

Chronic Disease Prevention and Screening

Goal: Prevent, detect, and reduce risk factors that cause diabetes, coronary heart disease, and stroke among Louisville Metro residents

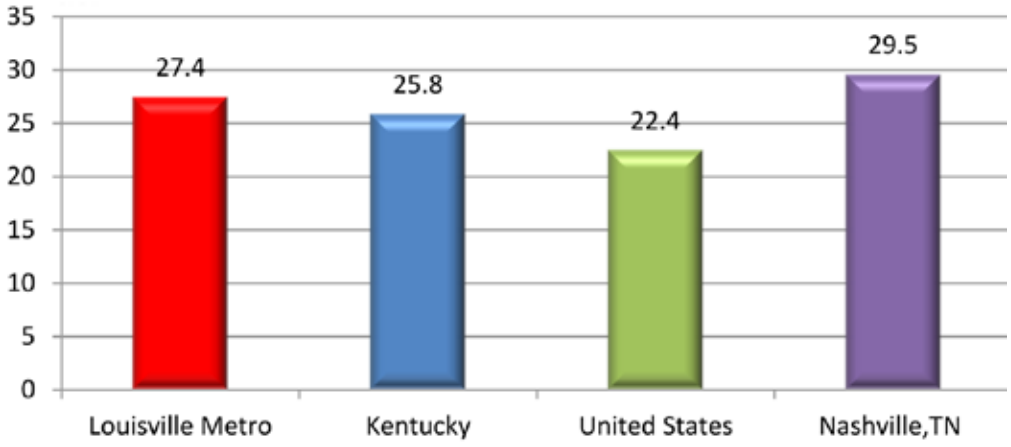
Diabetes

During the past 20 years, diabetes has become a significant health threat as rates have nearly doubled. Diabetes can cause long-term health complications, including heart disease, blindness, kidney failure, and lower-extremity amputations. Among the three types of diabetes (Type 1, Type 2, and gestational diabetes), Type 2 accounts for 90 to 95% of all cases in the U.S.[18] Type 2 diabetes can be prevented through lifestyle changes, including maintaining a healthy weight by eating nutritious foods, exercising regularly, and committing to routine medical checkups. These lifestyle changes can also help people with pre-diabetes prevent or delay the onset of diabetes.

Monitoring of blood glucose levels, using medications appropriately, exercising, and eating right help control diabetes, improve outcomes, and reduce complications and risk of death. Diabetes death rates have declined in the past decade, despite the increase in diagnosis rates.[19] However, death rates for diabetes in Louisville Metro (27.4 per 100,000 population) were higher than both the state and national rates in 2010.

Age-Adjusted Diabetes Death Rates, 2010

Death rates per 100,000 population



Source: Vital Statistics, Kentucky Deaprtment for Public Health, National Vital Statistics System

[18] U.S. Centers for Disease Control and Prevention. 2011 Diabetes National Fact Sheet. 2011. Retrieved from http://www.cdc.gov/diabetes/pubs/general11.htm. Accessed December 2013.
[19] U.S. Centers for Disease Control and Prevention. 2012. Diagnosed Diabetes Grows at a Dramatic Rate throughout the United States. Retrieved from http://www.cdc.gov/media/releases/2012/p11_15_diagnosed_diabetes.html. Accessed December 11, 2013.

Heart Disease and Stroke

Heart disease and stroke are the first and third leading causes of death for both men and women in the U.S.[20] Common risk factors can be divided into three main types:

- Conditions - high blood pressure, high cholesterol level, high glucose level
- Behavior - tobacco use, poor diet, physical inactivity, obesity, and alcohol use
- Heredity - genetic factors

With the exception of heredity, nearly all risk factors are preventable and controllable. Early action is critical to reducing death and complications from a heart attack or a stroke. Knowing the warning signs and symptoms is vital. Coronary artery disease is the most common cause of heart attacks.

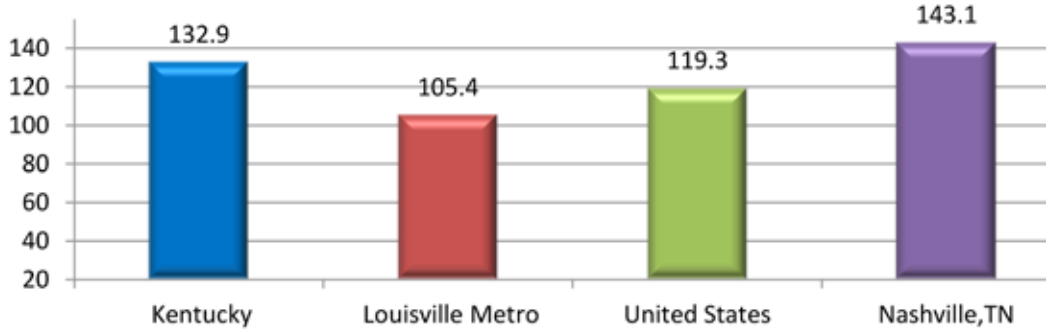
Heart attack signs include:

- Chest pain or discomfort
- Upper body pain or discomfort in the arms, back, neck, jaw, or upper stomach
- Shortness of breath
- Nausea, lightheadedness, or cold sweats

About 47% of sudden cardiac deaths occur outside a hospital.[21] This suggests that many people with heart disease may not act on early warning signs. However, coronary artery disease death rates have declined during the past decade nationwide, as well as in Louisville Metro, with the average death rate in Louisville Metro decreasing from 127 per 100,000 population during 2005-2007 to 105.4 during 2008-2010.

Age-Adjusted Death Rates from Coronary Heart Disease, 2008 - 2010

Death rates per 100,000 population



Source: U.S. Centers for Disease Control and Prevention 2008 - 2010

[20] "Heart Disease and Stroke Prevention." U.S. Centers for Disease Control and Prevention. 2011. Retrieved from http://www.cdc.gov/chronicdisease/resources/publications/AAG/dhdsp.htm. Accessed December 2013.

[21] "Heart Disease Facts." U.S. Centers for Disease Control and Prevention. Retrieved from http://www.cdc.gov/HeartDisease/facts.htm. Accessed December 2013.

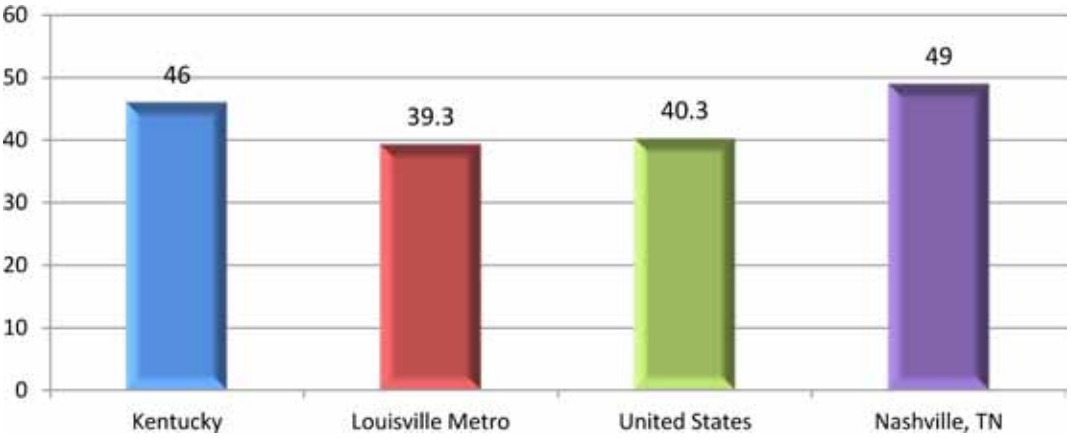
Stroke signs include:

- Sudden numbness or weakness of the face, arm, or leg-especially on one side of the body
- Sudden confusion, trouble speaking or understanding
- Sudden trouble seeing in one or both eyes
- Sudden trouble walking, dizziness, loss of balance or coordination
- Sudden severe headache with no known cause

The first three hours after a stroke are very critical, especially for ischemic stroke (stroke caused by blockage in an artery). Receipt of proper medical care within this window of time may improve health outcomes.
In 2008-2010, the average death rate for stroke in Louisville Metro was 39.3 per 100,000 population. This rate was lower than both the national (40.3) and the state (46).[22] However, black men and women remain nearly twice as likely as their white counterparts to die from preventable heart disease and stroke in Louisville Metro.

Age-Adjusted Stroke Death Rates, 2008 - 2010

Death rates per 100,000 population



Source: Vital Statistics, Kentucky Department of Public Health, National Vital Statistics System

High Blood pressure or hypertension is a common risk factor for both heart disease and stroke and is prevalent in the U.S. About one in three U.S. adults—an estimated 68 million—have high blood pressure.[23] It is called the "silent killer" because it often has no warning signs or symptoms. This condition is preventable through lifestyle changes, such as quitting tobacco use, limiting alcohol use, eating a healthy diet, avoiding sodium or table salt, maintaining a healthy weight, and being physically active. It is also treatable with medications. In 2008, 39% of Louisville Metro adults reported having hypertension.[24]

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[22] U.S. Centers for Disease Control and Prevention. Deaths, percent of total deaths, and death rates for the 15 leading causes of death: United States and each State, 2010. Retrieved from http://www.cdc.gov/nchs/data/dvs/LCWK9_2010.pdf. Accessed December 2013.
[23] High Blood Pressure. U.S. Centers for Disease Control and Prevention. Retrieved from http://www.cdc.gov/bloodpressure/. Accessed December 2013.
[24] 2008 Louisville Metro Behavioral Risk Surveillance Survey (BRFSS). Louisville Department for Public Health and Wellness.

Programs

LMPHW and the Mayor's Healthy Hometown Movement (MHHM) offer programs that provide Louisville Metro residents with tools to reduce the risks and complications of chronic disease through lifestyle changes. Working with the YMCA of Greater Louisville to promote and facilitate Diabetes Prevention Program classes; leading Chronic Disease Self-Management classes in partnership with University of Louisville Family and Geriatric Medicine, Family Health Centers, Inc., and Louisville Primary Care Association; and partnering with Metro Parks to promote low-cost fitness classes are all examples of existing evidence-based programs in the community. Cooper Clayton smoking cessation classes are promoted at all chronic disease education and management classes. LMPHW also provides diabetes self-management education classes monthly at libraries, community centers, and faith-based organizations.

LMPHW has partnered with community partners to develop and implement several policy and systems changes to prevent chronic disease, including smoke-free zones in Metro Parks, amending the land-development code to recognize community gardens as an approved use, installing Mayor's Miles walking paths, and incorporating practice-based safe bicycling and walking education at summer youth camps. The MHHM Community Coalition's Chronic Disease Committee also builds connections for public-private partnerships to reduce chronic disease.

HL 2020 Targets:

- Reduce diabetes death rate from 27.4 to 24.7 per 100,000 population.
- Reduce coronary heart disease death rate from 105.4 to 94.8 per 100,000 population.
- Reduce stroke death rate from 39.3 to 35.4 per 100,000 population.
- Reduce the percentage of adults with hypertension from 39% to 35.1%.

Recommendations

- Adopt a National Salt Reduction Initiative (NSRI) for Louisville Metro. NSRI is a voluntary public-private partnership that would establish measurable goals aimed at reducing the salt intake of Louisville Metro residents.
- Advocate for establishing a health insurance reimbursement structure for services provided through the National Diabetes Prevention Program and other CDC-approved diabetes prevention programs to support community-based efforts to prevent Type 2 diabetes.
- Adopt use of health impact assessments for new and existing construction or improvement projects to ensure safe communities that promote healthy living and physical activity.
- Successfully implement the U.S. Food and Drug Administration's (FDA) restriction of the use of artificial trans-fat in fried foods and prepared baked goods served in all permitted food service establishments. *(See also recommendations for Obesity Prevention and Tobacco Use)*

Healthy Neighborhoods and Healthy Homes

Tobacco Use

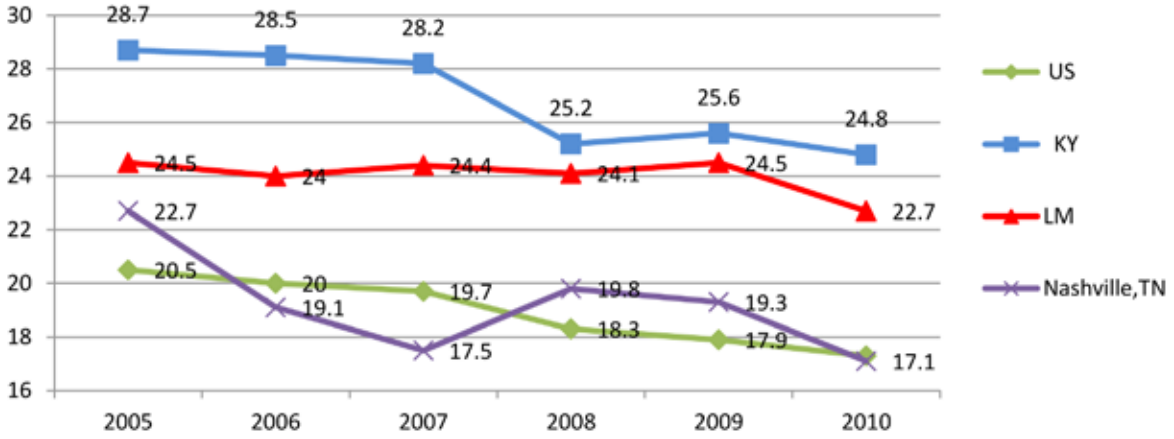
Goal: Reduce the prevalence of and death rate related to tobacco use and exposure to secondhand smoke in Louisville Metro

Smoking is the leading preventable cause of disease, disability, and death in the U.S.[25] Adverse effects of cigarette smoking account for one of every five deaths each year in the U.S.[26] Thirty-two percent of Louisville Metro residents reported cigarette smoking in 2008.[27] This is higher than both the state and national rate for the same year.

During the 2011-2012 school year, 14.8% of students grades 6 thru 12 enrolled in Jefferson County Public Schools (JCPS) reported cigarette use in the past 30 days.[28] The financial burdens of preventable health problems that begin in adolescence are significant and include the long-term costs of chronic diseases that follow into adulthood. The estimated cost associated with the initiation of smoking by age 18 is $193 billion.[29] Strong evidence supports the need to mitigate health risk behaviors, such as smoking in adolescence, to improve population health outcomes and control health-related expenditures.

Adults Smoking Trends, 2005 - 2010

Percentage of adults who are current smokers



Source: BRFSS

[25] Tobacco Use: Targeting the Nation's Killer. U.S. Centers for Disease Control and Prevention. 2011. Retrieved from http://www.cdc.gov/chronicdisease/resources/publications/AAG/osh.htm. Accessed December 2013.
[26] Ibid.
[27] Obtained from 2008 Louisville Metro Behavioral Risk Factor Surveillance Survey. Louisville Metro Department of Public Health and Wellness.
[28] 2010 - 2011 Safe and Drug Free Schools Survey, Jefferson County Public Schools. School year 2010-2011.
[29] Adhikari B, Kahende J, Malarcher A, et al. Smoking attributable mortality, years of potential life lost, and productivity losses – United States, 2000–2004. MMWR. 2008;57(45):1226-8. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5745a3.htm. Accessed December 2013.

Programs

Creating smoke-free zones in shared outdoor spaces and supporting smoke-free multi-unit rental housing are examples of actions taken to support healthy homes and neighborhoods in Louisville Metro. LMPHW works with MHHM partners to reduce initiation of smoking, increase cessation and reduce exposure to secondhand smoke through programs like the Cooper Clayton smoking cessation program and implementing policies that protect non-smokers. Baptist Health, the Kentucky Cancer Program, KentuckyOne Health, and Norton Healthcare have and continue to support and promote cessation classes in targeted zip codes with the greatest proportion of smokers.

Through the Kentucky Department for Public Health, Louisville Metro residents can initiate free one-on-one help from cessation specialists/coaches by calling 1-800-QUIT-NOW (1-800-784-8669). A special program with incentives is available for pregnant women who smoke and free nicotine replacement products are available for Quit Now Kentucky users who are uninsured. QuitNowKentucky.org provides an online approach to cessation at no charge for those who prefer it.

HL 2020 Targets:

- Reduce cigarette smoking among adults from 32.1% to 29%.
- Reduce cigarette smoking among adolescents from 14.8% to13.3%.

Recommendations

- Advocate for increasing the state cigarette tax, which has proven to decrease smoking initiation among teens and pregnant women and invest the revenue in health-related programs.
- Increase smoking cessation services for expectant parents.
- Increase health provider referrals to effective smoking cessation programs.
- Expand city-wide smoke-free areas to include outdoor public spaces, such as playgrounds, parks, special events, and public areas around downtown hospital campuses.
- Create demand for more smoke-free public and private multi-unit rental housing.
- Strengthen the enforcement of existing laws prohibiting indoor smoking at worksites and selling tobacco to minors.
- Reduce tobacco advertising and promotion, particularly within close proximity to schools, in retail establishments such as convenience stores, grocery stores, and pharmacies.
- Restrict sale of e-cigarettes and hookah products to minors.

Air Quality

Goal: To improve the quality of the air that Louisville Metro residents breathe

Air quality directly affects our quality of life. The Air Quality Index (AQI) is an index for reporting daily air quality.[30] It indicates how clean or unhealthy the air is and at what levels health effects might be of concern. The AQI is calculated for four major air pollutants regulated by the Air Pollution and Clean Air Act: ground level ozone, particle pollution, carbon monoxide, and sulfur dioxide.[31] The higher the AQI value, the greater the level of air pollution and thus, health concern.

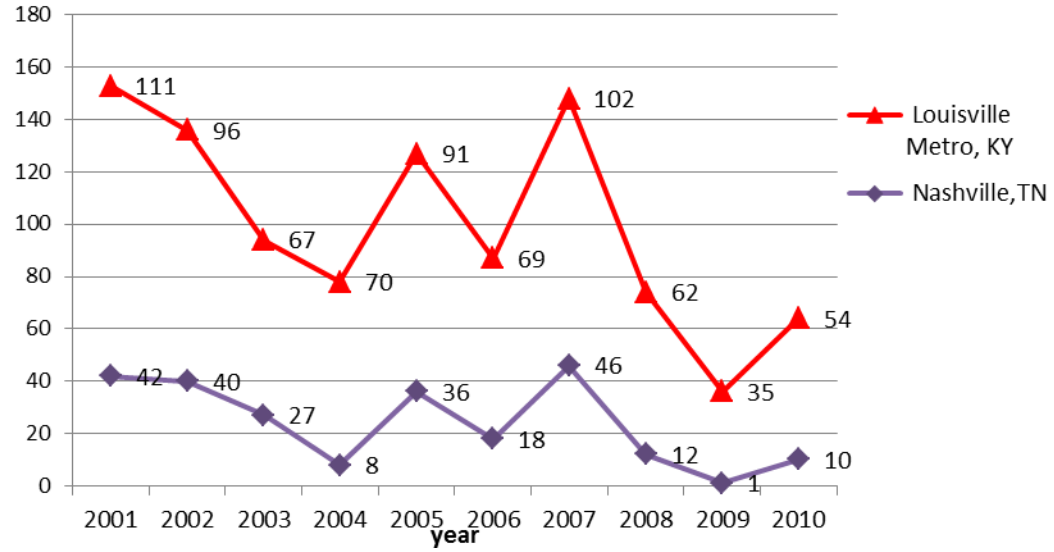
AQI is divided into six levels of health concern:

Air Quality Index (AQI) Values	Levels of Health Concern	Colors
When the AQI is in this range	**...air quality conditions are:**	**...as symbolized by this color:**
0 to 50	Good	Green
51 to 100	Moderate	Yellow
101 to 150	Unhealthy for Sensitive Groups	Orange
151 - 200	Unhealthy	Red
201 - 300	Very Unhealthy	Purple
301 - 500	Hazardous	Maroon

Source: U.S. Environmental Protection Agency

Trends in Air Quality, 2001 - 2010

Number of days per year with AQI above 100



Source: U.S. Environmental Protection Agency

[30] Air Quality Index Report. U.S. Environmental Protection Agency. 2013. Retrieved from http://www.epa.gov/airdata/ad_rep_aqi.html. Accessed December 2013.

[31] Ibid.

Programs

Kentuckiana Air Education (KAIRE) is the Louisville Metro Air Pollution Control District's community outreach and education program. Its main goal is to increase the public awareness about how human behaviors and individual choices can negatively affect local air quality.

The Strategic Toxin Air Reduction (STAR) program is a regulatory program of the Louisville Metro Air Pollution Control District that aims to reduce harmful contaminants in the air. One of the components of the STAR program is monitoring 170 companies that emit the largest amounts of chemicals to determine whether they are exceeding the health risk goal for each of the targeted chemicals. It requires companies that exceed the goal to present a plan to reduce emissions and reach the goal within a six-year period.

Additionally, in 2013, Mayor Greg Fischer formed the Tree Advisory Commission to develop policies to better care for existing trees and plant new trees. Creating the Tree Advisory Commission recognizes that trees are not only beautiful, but they cleanse the air, provide shelter and shade, and reduce the urban heat-island effect. The Commission is working with Brightside and community partners to develop a comprehensive approach to expanding the tree canopy in Louisville Metro.

HL 2020 Target:

- Reduce the number of days with AQI that exceed 100 from 54 to 34 days per year.

Recommendations

- Upgrade sidewalks and all-purpose trails to promote more walking and biking for transportation.
- Develop a bike share program to promote multimodal transportation.
- Expand use of existing hybrid fuel efficient public transportation.
- Promote increased use of public transportation by improving the functionality and aesthetic quality of bus stops and shelters.
- Prohibit vehicle and school bus idling on days where AQI exceeds 100.
- Increase percentage of bio component in biodiesel fuel.

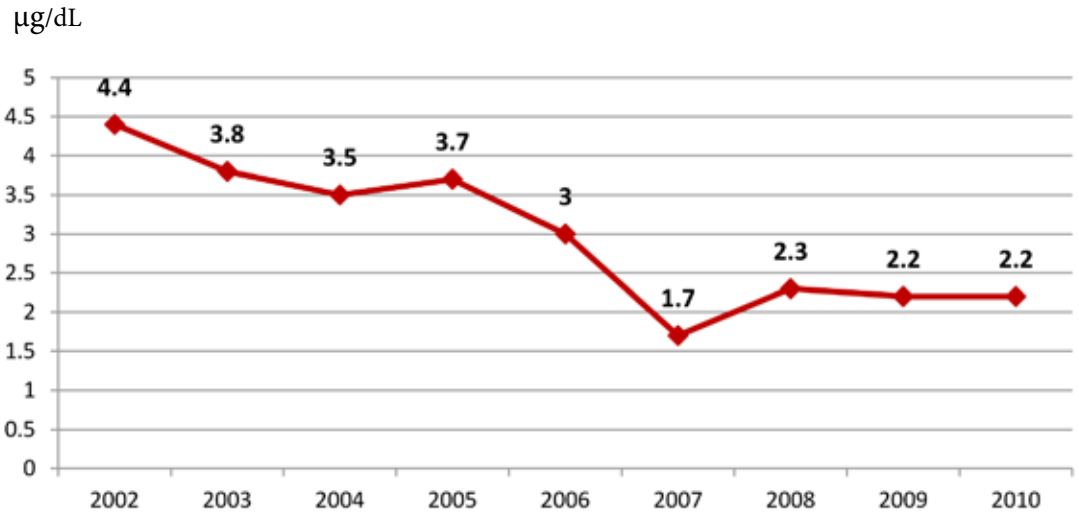
Childhood Lead Poisoning

Goal: Reduce lead poisoning among Louisville Metro youth

Lead poisoning is caused by swallowing or breathing in lead particles. It develops as lead gradually accumulates in the body as a result of multiple exposures. Even small amounts of lead can cause serious health problems. Children under the age of six are especially vulnerable to lead poisoning, which can severely affect mental and physical development. At very high levels, lead poisoning can be fatal. Lead-based paint and lead-contaminated dust in older buildings (pre-1978) are the most common sources of lead poisoning in children. Other sources include contaminated air, water, and soil.[32]

A total of 10,996 blood lead level tests were processed by the LMPHW lab and community providers in 2010. Children with high levels would be tested more than once. There were 171 children 5 years of age or younger who were tested and had blood levels >10 µg/dL. Of those, 87 were in case management with blood lead levels >14 µg/dL.

Mean Blood Lead Levels, 2002 - 2010



Sources: Childhood Lead Poisoning Prevention Program, Louisville Metro Public Health & Wellness

[32] Lead. U.S. Centers for Disease Control and Prevention. 2013. Retrieved from http://www.cdc.gov/nceh/lead/. Accessed December 2013.

Programs

For children with elevated blood lead levels, LMPHW conducts follow-up screenings, home inspections, risk assessment, and case management.

By 2015, the Louisville Metro Department of Community Services and Revitalization will remediate lead hazards in 175 units occupied by children ages 6 and under.

The University of Kentucky Cooperative Extension Service and the University of Louisville currently conduct a program in Louisville Metro that offers soil lead testing in urban gardens as part of a CDC-funded grant.

HL 2020 Target:

- Reduce the number of children in case management from 87 to 70.

Recommendations

- Advocate for return of adequate federal funding levels for Childhood Lead Poisoning Prevention Program (CLPPP).
- Conduct outreach to primary care providers to increase the number of children who receive age-appropriate blood lead level screening in patient-centered medical homes, according to national guidelines.
- Increase the practice of safe urban gardening including examination of in-the-ground vs. raised bed container gardening practices, site planning, and soil mending/remediation.
- Develop innovative lead mitigation techniques for demolition and deconstruction projects.

LeadFree KIDS for a Healthy Future

Healthy Mothers and Healthy Babies

Goal: Improve the health and well-being of mothers and babies in Louisville Metro

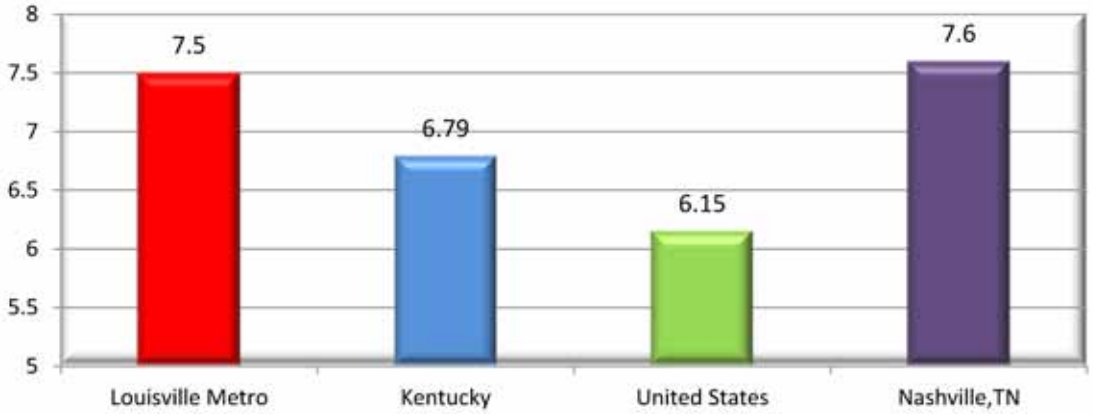
Infant Mortality Rate (IMR)

Infant mortality is an important indicator of the health of a community. However, the U.S. ranks 30th in infant mortality in the world. While the U.S. infant mortality rate has declined in recent years, Louisville Metro rates have remained stagnant and on average higher than the national rates.[33]

According to LMPHW fetal infant mortality records, the greatest number of infant deaths in Louisville Metro occurs in the post neonatal period (one month to one year old). Studies have shown that the most common risk factors associated with deaths during this period include sleep position, maternal smoking, passive smoke, bedding, co-sleeping, crib availability and use, and parental substance abuse.[34]

Infant Mortality Rates, 2010

Death rates per 1,000 live births



Sources: Louisville Metro birth records, Kentucky Department for Public Health, National Vital Statistics report, Centers for Disease Control and Prevention

[33] MacDorman MF, Mathews TJ. Behind international rankings of infant mortality: How the United States compares with Europe. NCHS data brief, no 23. Hyattsville, MD: National Center for Health Statistics. 2009. Retrieved from http://www.cdc.gov/nchs/data/databriefs/db23.pdf. Accessed December 2013.

[34] "SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment." American Academy of Pediatrics. Retrieved from http://pediatrics.aappublications.org/content/early/2011/10/12/peds.2011-2284.full.pdf+html. Accessed December 2013.

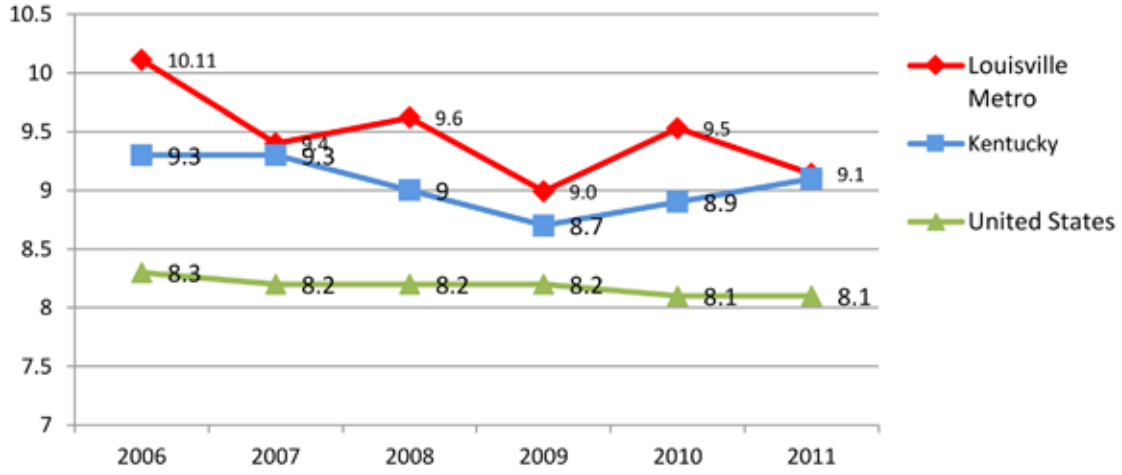
Healthy Birth Outcomes

Healthy birth outcomes include fewer low birth weight babies, fewer preterm births and more adequate prenatal and inter-conception care. The health of the mother *before* and during pregnancy are the most important predictors for a healthy birth outcome.

Low birth weight (LBW) babies are infants born weighing less than 5 lbs., 8oz. Children born at a low birth weight face increased risk for serious health problems such as developmental and intellectual disabilities, cerebral palsy, and vision and hearing loss. Following the national trend, black women have the highest rates of low-weight births in Louisville Metro with 13.7% delivering low birth weight babies, compared to white women (7.6%) in 2010.

Resident Low Birth Weight, 2006 - 2011

Per 1,000 Live Births



Sources: Louisville Metro birth records, Kentucky Department for Public Health, National Vital Statistics report, Center for Disease Control and Prevention

Smoking during pregnancy is the "single most important known cause" of low birth weight.[35] Other factors include poor prenatal nutrition, infections, stress, and poverty. Improving access to prenatal care and implementation of effective smoking cessation programs for pregnant women could help reduce low birth weight rates and shrink the disparity gap. In 2011, approximately 18% of pregnant women residing in Louisville Metro reported smoking during pregnancy.

Preterm birth or premature birth is defined as a birth that occurs at least three weeks prior to the due date: less than 37 weeks of gestation. Full term is 40 weeks. The earlier a baby is born, the more severe his or her health problems are likely to be. Some premature babies require special care and spend weeks or months hospitalized in a neonatal intensive care unit (NICU). Those who survive may face lifelong problems, such as intellectual disabilities, cerebral palsy, breathing and respiratory problems, visual problems, hearing loss, and feeding and digestive problems. In 2010, Louisville Metro had a premature birth rate of 8.2%, which was lower than both the state and national rates.

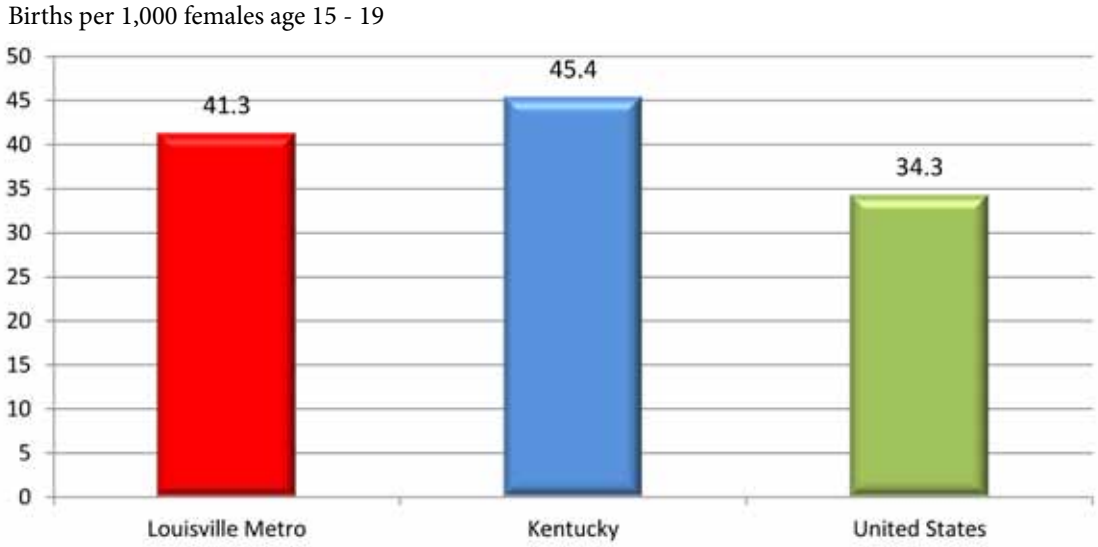
Adequate prenatal care is essential to ensure healthier pregnancies and healthier babies. It is measured using the *Kotelchuck Index* which combines information about the month of initial prenatal care visit, number of visits, and gestational age.[36] It is very important for pregnant mothers to start prenatal care early during their first trimester. Public health officials have recommended that prenatal care also include preconception care for women of reproductive age. Preconception care focuses on health education, screening, and interventions to improve a woman's overall health. Eighty percent of Louisville Metro pregnant women receive prenatal care during their first trimester. However, the percentage of pregnant black women (27.2%) who do not receive prenatal care during their first trimester is almost double, compared to white women (14.8%).

[35] "KIDS COUNT Indicator Brief: Preventing Low Birth Weight." Annie E. Casey Foundation. 2003. Retrieved from http://www.aecf.org/upload/PublicationFiles/brief%20low%20birth%20weight.pdf. Accessed December 2013.

[36] Kotelchuck, M. "Overview of Adequacy of Prenatal Care Utilization Index." 1994. Retrieved from http://www.mchlibrary.info/databases/HSNRCPDFs/Overview_APCUIndex.pdf Accessed December 2013.

The teen birth rate in the U.S. has declined by 9%, reaching a historic low at 34.3 live births per 1,000 women 15–19 years of age from 2009 to 2010.[37] However, Louisville Metro teen birth rates of 41.3 remain higher than the national rate. Additionally, the teen birth rate of black females in Louisville Metro is much higher than that of white females at 57.1 to 26.5 respectively. Teenage pregnancy continues to be a matter of public concern because of the elevated health risks for teen mothers and their infants.

Birth Rates Among Females, Ages 15 - 19, 2010



Sources: Jefferson County birth files, Kentucky Cabinet for Health and Human Services Vital Statistics 2010

[37] Hamilton BE, Ventura SJ. Birth rates for U.S. teenagers reach historic lows for all age and ethnic groups. NCHS data brief, no 89. Hyattsville, MD: National Center for Health Statistics. 2012. Retrieved http://www.cdc.gov/nchs/data/databriefs/db89.htm. Accessed December 2013.

Childhood Immunizations

Immunizations are one of the best ways to protect infants, children, and teens from potentially harmful diseases. Vaccine-preventable illnesses can lead to serious health issues or even death, especially in infants and young children. Among children ages 19 months to 5 years in Louisville Metro, 95.6% who attend daycare received the recommended doses of DTaP (diphtheria, tetanus, whooping cough), polio, MMR (measles, mumps, rubella), Hib (influenza), hepatitis B, varicella (chickenpox), and PCV (pneumococcal) vaccines.

Programs

Healthy Start is an income eligible, federally funded program operated by LMPHW that provides education and support to pregnant women living in zip codes 40202, 40203, 40208, 40210, 40211, and 40212. The goal is to increase care for at-risk families during pregnancy and into the first two years of a child's development through home visitation, community education forums, and peer support.

The Women, Infants, and Children Supplemental Nutrition Program (WIC) is an income eligible, federally funded supplemental food program for pregnant women and children from birth to age 5. Approximately 15,000 mothers and children benefit from the program in Louisville Metro.

The Kentucky Folic Acid Partnership is a state-wide educational program that aims to increase awareness about the importance of folic acid in prenatal care. Folic acid taken before and during pregnancy can prevent major birth defects like spina bifida and anencephaly.

HL 2020 Targets:

- Reduce infant mortality rate from 7.5 to 6.75 per 1,000 live births.
- Reduce the racial disparity gap in infant mortality rates between white and black mothers from 6.3 to 5.7 per 1,000 live births.
- Reduce the percentage of low birth weight births from 9.5% to 8.5%.
- Reduce the preterm birth rate from 8.2% to 7.8%.
- Increase the percentage of pregnant women who receive prenatal care beginning in the first trimester from 80% to 88%.
- Decrease teenage pregnancies from 41.3 to 37.2 per 1000 female teenagers aged 15-19.
- Reduce the percentage of women who smoke while pregnant from 17.9% to 16.1%.
- Increase the percentage of children ages 19 months to 5 years who attend daycare and have the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella, and PCV vaccines from 95.6% to 100%.

Recommendations

- Advocate for the state's participation in the CDC's Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS is a surveillance project designed to collect state-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy. This would strengthen the capacity to use a data-driven approach to improve maternal and child health, as well as allow for the comparison of data among counties and other states.
- Promote coordination of community-based home-visiting programs with other child and family services to provide a continuum of care from ages 0 to 5 for the parents of high-risk children.
- Ensure that home-visiting programs actively engage fathers in program services before children are born.
- Implement evidence-based teen pregnancy prevention programs in Louisville.
- Increase the number of family-friendly work environments and the adoption of breastfeeding policies that provide adequate time and places for working mothers to breastfeed or pump.

HIV Prevention and Screening

Goal: Reduce human immuno-deficiency virus (HIV) infection among Louisville Metro residents

HIV is a preventable disease and practicing safer sex can reduce the risk of HIV transmission. For those infected with HIV, effective drug therapies are now available that help prolong life. While Louisville Metro makes up approximately 17% of Kentucky's population, it has 45% of all diagnosed HIV cases in the state. In 2010, 2,485 people were living in Louisville Metro with HIV. More than 6,000 HIV tests were performed that same year and 145 persons were newly diagnosed.

HIV infection is too often discovered at an advanced stage. Nationwide, approximately 20% of people infected with HIV are not aware of their status.[38] Identifying persons early in infection and providing them with the appropriate counseling, education, and opportunities for linkage to care are necessary steps to controlling HIV. Of those Louisville Metro residents living with HIV in 2010, an estimated 319 persons (13%) were unaware of their status.

Programs

The AIDS Services Center Coalition is an umbrella organization of HIV/AIDS service providers in Louisville Metro and southern Indiana. It is a vital source for education, information, and connection to HIV-related resources. Member agencies include: AIDS Interfaith Ministries of Kentuckiana, Inc., Camp Heart to Heart, Friend to Friend, HIV/AIDS Project of the Legal Aid Society, House of Ruth, Keeping It Real-The Neighborhood Institute, Surviving AIDS in Louisville, and the University of Louisville Ryan White Community-Based Dental Partnership. Examples of the services they provide include case management, housing support, counseling, summer camp, dental services, and behavioral healthcare.

LMPHW provides walk-in HIV testing at the Specialty Clinic located in the Central Government Center at 7201 Outer Loop. HIV testing is also available by appointment at the Regional Tuberculosis (TB) Clinic at 400 E. Gray St.

HL 2020 Target:

- Increase the percentage of people who are infected with HIV and know their status from 87.2% to 90%.

Recommendations

- Adopt a comprehensive HIV care plan – a community-wide strategic plan aimed at system changes and service improvements to enhance testing, entry into care, retention in care, and positive clinical outcomes for people living with HIV.
- Advocate for increased federal, state, and local funding for HIV outreach and awareness, particularly for younger and newer injection drug users and women.
- Promote HIV testing as standard of care in hospital emergency rooms.

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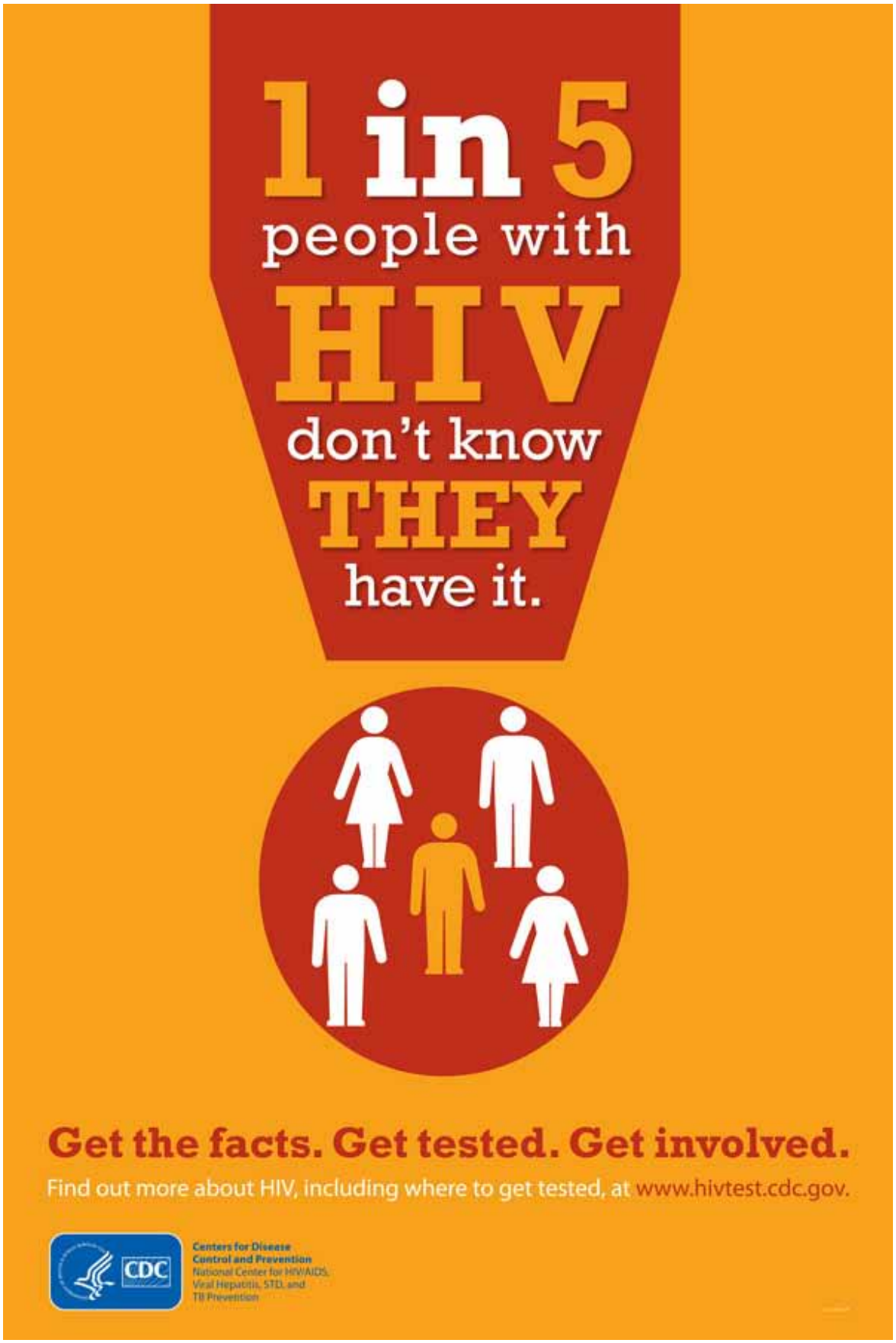
[38] http://chfs.ky.gov/NR/rdonlyres/CF3F3F11-F0EF-4376-9C88-AFF638743651/0/Annual_Report_June2011.pdf


1 in 5
people with
HIV
don't know
THEY
have it.
Get the facts. Get tested. Get involved.
Find out more about HIV, including where to get tested, at www.hivtest.cdc.gov.
CDC
Centers for Disease Control and Prevention
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention

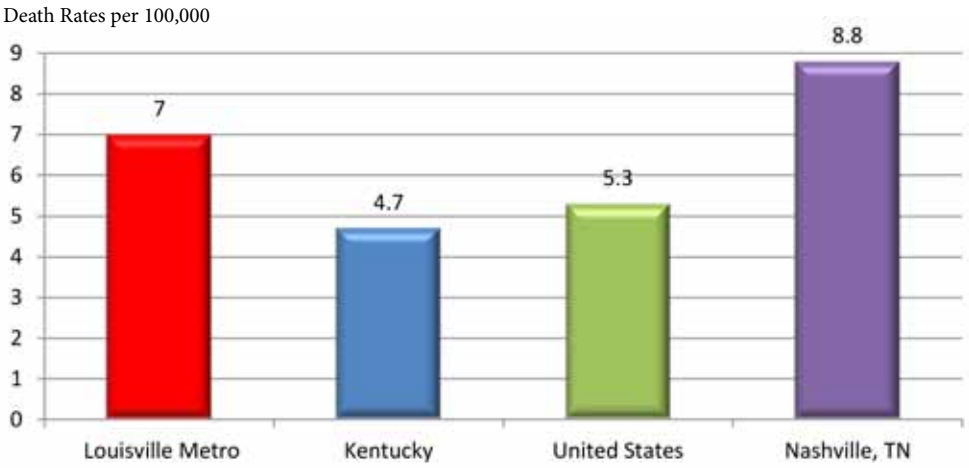
Safe and Healthy Neighborhoods

Goal: Decrease the prevalence of violence and unintentional injuries in Louisville Metro

Injuries and violence are the leading cause of death for Americans ages one to 44 years and a leading cause of disability for all ages, regardless of sex, race/ethnicity, or socioeconomic status.[39] In the first half of life, more Americans die from violence and injuries - such as motor vehicle crashes, falls, or homicides - than from any other cause, including cancer, HIV, or the flu. Beyond their immediate health consequences, injuries and violence have a significant impact on the well-being of Americans by contributing to premature death, disability, poor mental health, high medical costs, and lost productivity.[40] Moreover, witnessing or being a victim of violence is linked to lifelong negative physical, emotional, and social consequences.[41] Violence is a serious public health problem that can extend to related issues, such as child maltreatment, elder abuse, intimate partner violence, youth violence, school violence, sexual violence, and global violence.

Besides the effects crime and violence have on individual health and mental health, they can be detrimental to the health of the whole community. Unsafe neighborhoods are associated with low birth weights, higher rates of infant mortality, high school drop out rates, and higher rates of delinquency, child abuse and neglect.[42] In 2010, homicide caused 53 deaths in Louisville Metro and more than 176 people were hospitalized from non-fatal gunshots as reported by LMPD in 2012. The rate for fatal injuries was 51.3 deaths with 11.4 due to motor vehicle crashes and 39.9 due to unintentional injuries, many of which were preventable (i.e., drowning, falls, unintentional gunshots, sports or athletic injuries, and burns).

Homicide Rates, 2010



Source: Vital Statistics, Kentucky Department of Public Health, National Vital Statistics System

[39] Web-based Injury Statistics Query and Reporting System (WISQARS). U.S. Centers for Disease Control and Prevention. 2013. Retrieved from http://www.cdc.gov/injury/wisqars/index.html. Accessed December 2013.
[40] Violence and Injury Prevention, Healthy People 2020. U.S. Department of Health and Human Services. 2013. Retrieved from http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=24. Accessed December 2013.
[41] Michele Cooley-Strickland, Tanya J. Quille, Robert S. Griffin, Elizabeth A. Stuart, Catherine P. Bradshaw, Debra. Community Violence and Youth: Affect, Behavior, Substance Use, and Academics. Clin Child Fam Psychol Rev. 2009 June; 12(2): 127–156. Published online 2009 May 27. Accessed December 2013.
[42] Ibid.

Programs

The Violence Prevention Workgroup was formed by Mayor Fischer in 2012 to identify and analyze the root causes of violence in the community and develop strategies with long-term impacts. The workgroup released a report outlining 42 recommendations that serve as the foundation for the Blueprint for Safe and Healthy Neighborhoods.

The overall objective of the Blueprint for Safe and Healthy Neighborhoods is to dramatically reduce violent crime in Louisville Metro. It proposes a multi-year plan that will be implemented in phases. This work will engage key community leaders from all sectors and foster innovative partnerships for the identification, creation, and modification of programming to meet the changing needs of our community. It focuses its work in five areas: 1) community and family building, 2) education, 3) employment and economic development, 4) health and social wellness, and 5) juvenile and criminal justice. The Blueprint utilizes a twin approach that allows for recommendations that are system wide and would impact the entire jurisdiction, as well as recommendations that target specific demographic groups identified as most greatly impacted.

HL 2020 Targets:

- Decrease the percentage of JCPS schools with a serious violent incidence from 66% to 60%.
- Reduce the rate of fatal injuries from 51.3 to 46.2 per 100,000 population.
- Reduce the homicide rate from 7 to 6.3 per 100,000 population.
- Decrease the non-fatal gun-shot rate from 23.4 to 21.1 per 100,000 population.

Recommendations

- Identify opportunities to increase educational attainment, close the achievement gap, and reduce the disproportionate number of school suspensions and alternative school placements by race.
- Support small businesses in economically disadvantaged areas and create opportunities to attract new businesses.
- Incorporate a public health approach to address the physical, mental, emotional, and social factors associated with violence.
- Identify and deliver appropriate interventions for individuals during initial contact with the juvenile and criminal justice system.
- Provide services aimed to address issues related to citizens returning home after incarceration.

Mental and Behavioral Health

Goal: Improve the mental and emotional well-being of Louisville Metro residents

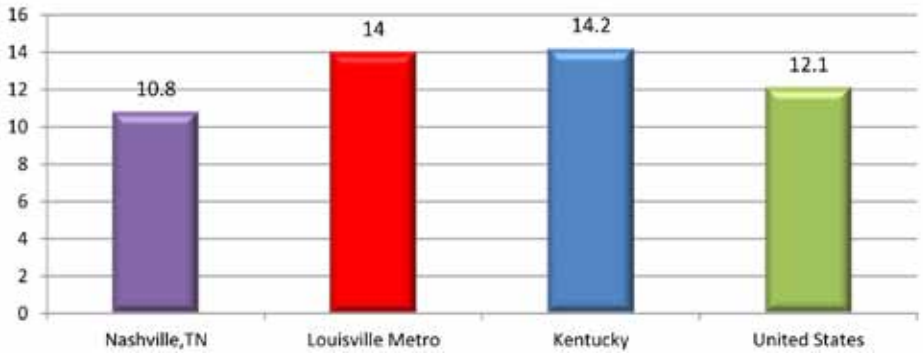
According to the World Health Organization (WHO), mental health is defined as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community."[43] Mental health is more than the absence of mental illnesses and disorders. It is the emotional, psychological, and social well-being of the individual. It is estimated that 17% of U.S. adults are considered to be in a state of optimal mental health.[44]

Mood disorders are among the most pervasive of all mental disorders and major depression is the most common. Symptoms of major depression include feeling sad or blue for a time period of two weeks or more, uninterested in things previously of interest, and increased or decreased appetite. Major depression frequently goes unrecognized and untreated, and may foster tragic consequences, such as suicide and impaired interpersonal relationships.

Suicide is a serious public health problem and it is the 10th leading cause of death in the U.S.[45] Firearms, suffocation (predominantly hanging), and poisoning (predominantly drug overdose) are the three leading methods of suicide in the United States. The rate of suicide has risen in the past decade, with the greatest increase occurring among the population age 35-64 years (28.4 per 100,000 population). The Louisville Metro suicide rate of 14 is higher than the 12.4 national rate but lower than the state rate of 14.5.[46] Following the national trend, white men have the highest rate of suicide in Louisville Metro. According to hospitalization data, the leading cause of inpatient visits by preteens and adolescents was for emotional disorders. In 2011, 221 preteens and adolescents ages 11-20 years living in Louisville Metro were hospitalized due to a major depressive disorder and 79 were hospitalized due to a suicide attempt or self-inflicted injury.

Age-Adjusted Death Rates from Suicide, 2010

Per 100,000 population



Source: Vital Statistics, KY Department for Public Health, National Vital Statistics System, Vital Statistics for Davidson County, TN

[43] Mental Health: Strengthening our response. World Health Organizations. 2010. Retrieved from http://www.who.int/mediacentre/factsheets/fs220/en/. Accessed December 2013.

[44] Mental Health Basics. U.S. Centers for Disease Control and Prevention. 2010. Retrieved from http://www.cdc.gov/mentalhealth/basics.htm. Accessed December 2013.

[45] Ibid.

[46] U.S. Centers for Disease Control and Prevention. Deaths, percent of total deaths, and death rates for the 15 leading causes of death: United States and each State, 2010. Retrieved from http://www.cdc.gov/nchs/data/dvs/LCWK9_2010.pdf. Accessed December 2013.

Programs

The Mayor's Healthy Hometown (MHH) Community Coalition has identified mental and behavioral health as one of three top priorities for collaborations to improve overall health. In partnership with several local agencies and community groups, MHH aims to address the broader issues of mental health to help ensure that all Louisvillians have the ability to realize their full potential, cope with life stress, work productively, and make meaningful contributions. The broad goals identified toward this end are to: (1) promote positive early childhood development, (2) facilitate social connectedness and community engagement across the lifespan, and (3) provide individuals and families with supports they need to maintain positive mental well-being.

The Healthy Start program also promotes positive mental health outcomes by providing home visits that address all of these goals, and staff provide depression screening and referral services for pregnant and postpartum participants.

Important stakeholders in the broader work of mental health include Seven Counties Services, Family and Children's Place, Network Center for Community Change, and JCPS early childhood programs.

As a result of recommendations from the Violence Prevention Work Group, the Louisville Metro Suicide Prevention Work Group was formed in Fall 2013.

State law requires that counselors in public middle and high schools present suicide prevention information at the beginning of the school year. "Dealing with Suicidal Thoughts" and "Save a Life" are two forms of suicide prevention awareness information distributed to students in all JCPS middle and high schools.

HL 2020 Targets:

- Reduce suicide rate from 14 to 12.6 per 100,000 population.
- Reduce the rate of preteen and adolescent (11-20 years) hospitalizations for major depressive disorder from 233.5 to 210.2 per 100,000 population.
- Reduce the rate of preteen and adolescent (11-20 years) hospitalizations for suicide attempts and self-inflicted injury from 83.5 to 75.2 per 100,000 population.

Recommendations

- Promote collaborative care for the management of depressive disorders.
- Develop and implement a community-wide plan to reduce mental health stigma and discrimination.
- Improve mental and behavioral health data collection, including suicide attempts in grades K-12.
- Provide training on the use of universal screening tools for professionals who have opportunities to identify and refer for mental health.
- Increase age-appropriate screenings for trauma, substance use disorders, and mental health in all workplaces, healthcare, and educational settings.
- Reduce barriers to access to care by advocating for reimbursement for mental health services.
- Identify zip codes with shortage of mental and behavioral health providers and advocate for increase of services in underserved areas.

Obesity Prevention

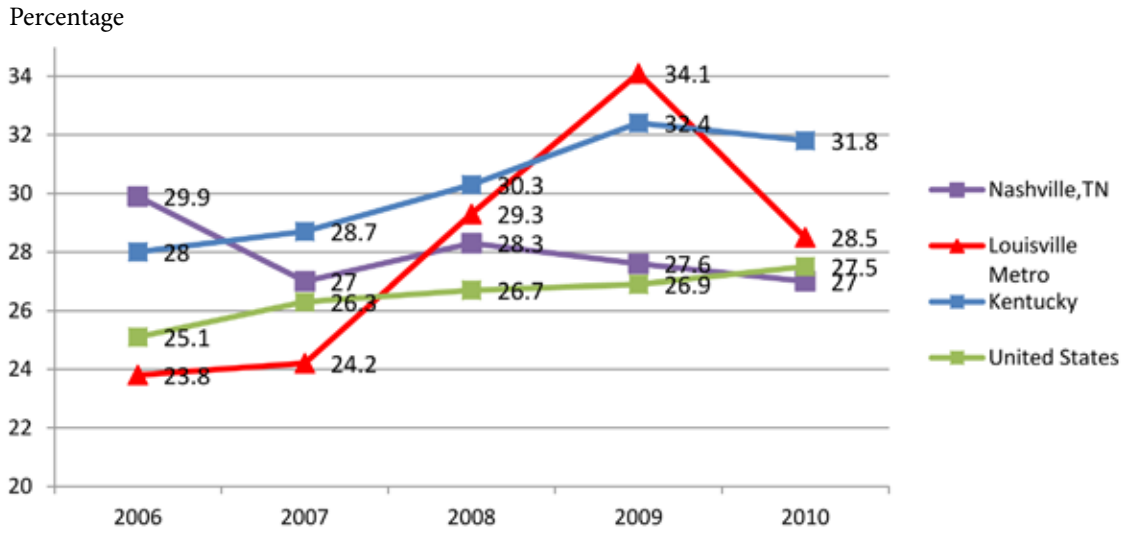
Goal: Reduce the proportion of Louisville Metro residents that are overweight and obese

Obesity is one of the top underlying causes of death in the U.S. due to its contribution to chronic diseases like diabetes, heart disease, stroke, and some cancers. The rise in obesity rates during the past few decades has made it a national epidemic. However, it is a disease that is preventable.

More than 72 million U.S. adults are obese and each one incurs $1,429 more in medical costs than a person with normal weight.[47] In every state, at least 15% of adults are obese, and in nine states, including Kentucky, more than 30% of adults are obese. In 2008, the obesity rate in Louisville Metro was 29.3%, which was lower compared to the state (30.3%) but higher than the nation (27.5%).[48]

The rate of obesity has increased among children as well. Nearly 18% of kindergartners and 24.2% of sixth graders attending JCPS were reported as obese in 2012, compared to 17.4% of the nation's children age 6-11 years.[49]

Obesity Rates Trends, 2005 - 2010



Sources: Kentucky Behavioral Risk Factor Surveillance Survey
Note: Data from Ky BRFSS might slightly differ from data from LM BRFSS due to differences in methodology

[47] Obesity: Halting the Epidemic by Making Health Easier, At A Glance 2011. U.S. Centers for Disease Control and Prevention. Retrieved from http://www.cdc.gov/chronicdisease/resources/publications/AAG/obesity.htm. Accessed December 2013.
[48] Behavioral Risk Factor Surveillance Survey. U.S. Centers for Disease Control and Prevention. 2010. Retrieved from http://apps.nccd.cdc.gov/brfss-smart/MMSACtyRiskChart.asp?MMSA=51&yr2=2010&qkey=4409&CtyCode=42&cat=OB#OB. Accessed December 2013.
[49] Obtained from Jefferson County Public Schools (JCPS).

Obesity means having excess body fat and is defined by body mass index, or BMI, which is calculated from a person's height and weight.

BMI	Weight Status
Below 18.5	Underweight
18.5 - 24.9	Normal
25.0 - 29.9	Overweight
30.0 and Above	Obese

Programs

The Mayor's Healthy Hometown Community Coalition identified increasing opportunities for healthy eating and active living as key components for creating a healthier Louisville. An important goal of the Mayor's Healthy Hometown Movement is to lower people's risk of chronic conditions by reducing obesity and promoting healthy body weight.

In 2013, LMPHW awarded ten Mayor's Healthy Hometown mini grants ranging from $1,500 to $4,250 to ten local organizations. Funds will be used to support nutritional counseling, exercise classes, instruction on how to grow fruits and vegetables, training to run races, and the planting of community fruit trees.

The Mayor's annual Healthy Hometown "Hike, Bike, and Paddle" event held every Memorial Day and Labor Day for the past nine years grows in popularity and attendance every year. The 2013 Labor Day Hike, Bike, and Paddle had an attendance of about 10,000. Attendees participated in a 3.1-mile walk/run, 15-mile bike ride, and/or 3-mile canoeing or kayaking experience in the Ohio River. Other activities included Zumba, yoga, and Tai Chi.

Built environment enhancements include road diets on Grinstead Drive and lower Brownsboro Road. Several Louisville roadways have new bike lanes. The ongoing development of the "Louisville Loop" has led to increased availability of bike paths and walkways.

Increased access to healthy and affordable foods has been aided by farmers markets that accept EBT, implementation of "Healthy in a Hurry" corner stores in areas identified as food deserts, and an increased number of school and community gardens. In 2013, the U.S. Conference of Mayors funding made possible the creation of a youth advocacy leadership program that trained more than 70 Louisville high school students in advocacy around such topics as active living, obesity prevention, urban agriculture, and injury and violence prevention. Partnerships with urban farms will enable youth trained in 2014 to move their advocacy education to action through summer jobs linking urban agriculture with the local food economy.

HL 2020 Targets:

- Reduce the proportion of adults who are obese from 29.3% to 26.4%.
- Reduce the proportion of children who are obese from 17.9% to 16.1% for kindergartners and from 24.2% to 21.8% for sixth graders.
- Increase the proportion of people who consume at least five servings of fruits and vegetables a day from 26% to 28.6%.
- Increase the percentage of adults who participate in moderate to rigorous physical activity for 150 minutes or more per week from 52.2% to 57.4%.

Recommendations

- Implement a system to monitor BMI through the required school physical exam for children entering kindergarten and sixth grade.
- Expand implementation of complete streets policies to ensure that roads are designed to accommodate everyone, including cyclists and pedestrians.
- Expand the Bike Share program beyond the downtown area.
- Implement shared-use agreements to permit community-based organizations to provide nutrition and fitness opportunities in schools and other large non-government facilities.
- Expand incentives for fitness and improved nutrition through worksites and health insurance programs.
- Enhance the implementation of evidence-based programs for physical activity and healthy eating in childcare and daycare facilities.
- Increase the number of "The New Roots Fresh Stops" and the location of alternative food models, including mobile fresh/whole food projects in food deserts.
- Limit the density of fast food restaurants across Louisville Metro with an emphasis on zip codes identified as food deserts.
- Promote the adoption of the U.S. Centers for Disease Control and Prevention "LEAN Works!" policies to employers.
- Increase the number of people who are screened for obesity and diet-related illnesses through their patient-centered medical home.
- Repurpose empty and vacant lots into community gardens, playgrounds or green spaces.
- Establish an annual Youth Risk Behavioral Surveillance Survey (YRBS) to be conducted in JCPS among middle and high school students to improve data collection on nutrition and physical activity.
- Increase number of local farmers markets that accept WIC and SNAP EBT.
- Encourage primary care providers to prescribe structured physical activity regimens that include specific recommendations for the frequency, intensity, and type of exercise to patients who are at risk for overweight or obesity.

Oral Health

Goal: Improve the oral health of Louisville Metro residents by reducing tooth decay and gum disease

Tooth decay and gum diseases are the most common oral diseases. Nearly one-third of all adults in the U.S have untreated tooth decay and 47.3% aged 30 years and older have some form of periodontal disease.[50] Tooth decay affects children more than any other chronic infectious disease. In 2011, 18.6% of children ages 2 through 7 in the U.S had not had a dental visit in the past year.[51] In Louisville Metro, a little more than half of all children enrolled in Medicaid or the Kentucky Children's Health Insurance Program received dental services in 2010.[52]

The two most prominent oral health public health prevention programs are community water fluoridation and school-based dental sealant programs. The proper amount of fluoride from infancy through old age helps prevent and control tooth decay. Community water fluoridation is a widely accepted practice for preventing and controlling tooth decay by adjusting the concentration of fluoride in the public water supply. Louisville Metro, like all cities in Kentucky with populations of 1,500 or more, has the advantage of mandatory fluoridation of the water supply. Dental sealants can prevent tooth decay and stop cavities from growing. School-based dental sealant programs help prevent oral diseases in targeted populations within school districts where the need for sealants has not been met due to socioeconomic factors. These programs help reduce disparities in dental care and promote dental health for all.

Programs

Smile!Kentucky is a community partnership comprised of more than 50 agencies to provide dental education and free dental care to children at elementary schools in Louisville Metro and surrounding counties. The program was created in 2002 by the Louisville Water Company, Louisville Dental Society, University of Louisville School of Dentistry, and Colgate. LMPHW supports the program by providing use of a mobile unit and community health services clerk.

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[50] Periodontal Disease. U.S. Centers for Disease Control and Prevention. Retrieved from http://www.cdc.gov/OralHealth/periodontal_disease/. Accessed December 2013.

[51] Division of Oral Health. U.S. Centers for Disease Control and Prevention. Retrieved from http://www.cdc.gov/OralHealth/index.htm. Accessed December 2013.

[52] KIDS COUNT Data Center. Annie E. Casey Foundation. Retrieved from http://datacenter.kidscount.org/data/Line/3811-children-enrolled-in-medicaid-or-kchip-who-received-dental-services?loc=19&loct=5#5/2979/false/133,38,35,18,17,16,15,14,13,12/asc/any/7817. Accessed December 2013.

HL 2020 Targets:

- Increase the percentage of adults who used the oral health care system in the past 12 months from 69% to 76%.
- Increase the percentage of children enrolled in Medicaid and the Kentucky Children's Health Insurance Program (KCHIP) who received dental services annually from 53% to 100%.

Recommendations

- Expand school-based dental sealant programs in schools with the greatest need.
- Improve oral health data collection for youth and children in Louisville Metro.
- Advocate for increasing the oral healthcare workforce, particularly the number of dentists that provide treatment to Medicaid recipients, and services in underserved areas of Louisville Metro.

Public Health Infrastructure

Goal: Ensure LMPHW has the infrastructure to provide Louisville Metro residents public health services at an optimal level on a daily basis as well as during emergencies

Emergency Preparedness

As with the rest of the nation, Louisville Metro faces threats with the potential for large-scale public health impact, including disease outbreaks, natural disasters, and terrorist attacks. Therefore, public health, healthcare and emergency response systems must be prepared to mitigate adverse health effects associated with these threats. Preparedness focuses on improving the ability of the city to withstand, recover, and learn from an emergency.

The U.S. Centers for Disease Control and Prevention (CDC) Health Alert Network (HAN) is the primary method of sharing cleared information about urgent public health incidents with public information officers, public health practitioners, clinicians, and public health laboratories. Louisville Metro Emergency Preparedness is part of the CDC's HAN that ensures a robust interoperable platform for rapid distribution of public health information and activation of designated personnel to respond to any public emergency.

Health Department Accreditation

As an agency, LMPHW is committed to ensuring high performance and continuous quality improvement. Therefore, LMPHW is currently in the process of applying for voluntary accreditation with the Public Health Accreditation Board (PHAB) the national accrediting organization for tribal, state, local, and territorial public health departments. Public health department accreditation is defined as the development of a set of standards and as a process to measure health department performance against those standards.[53]

Accreditation documents the capacity of the health department to deliver three core functions:

- A capable and qualified workforce
- Up-to-date data and information systems
- Capability of assessing and responding to public health needs

Programs

The Cities Readiness Initiative (CRI) is a program that is intended to increase the level of preparedness in major metropolitan statistical areas (MSAs) where more than half of the U.S. population lives. Through CRI, state and large metropolitan public health departments develop plans to quickly receive and distribute medicine and medical supplies from the Strategic National Stockpile (SNS) to their populations in the event of a large-scale public health emergency.[54]

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[53] Public Health Accreditation Board. Retrieved from http://www.phaboard.org/. Accessed December 2013.

[54] Emergency Preparedness and Response: Cities Readiness Initiative. Retrieved from http://emergency.cdc.gov/cri/. Accessed December 2013.

The primary purpose of the CRI program is to establish robust planning with the purpose of minimizing the number of lives lost due to a catastrophic public health event. CRI planning is meant to strengthen preparedness capabilities in order to decrease the time it takes to dispense medical countermeasures, and thus save lives.

The Centers for Disease Control and Prevention's Office of Public Health Preparedness and Response, Division of State and Local Readiness (DSLR), gives technical assistance to the CRI jurisdictions for the development of plans to receive, distribute, and dispense medical assets from the Strategic National Stockpile. To ensure continued readiness, CDC and state public health personnel conduct annual reviews to assess local plans.[55] LMPHW's 2013 technical assistance review score for Overall SNS Readiness was 98 (on a scale of 0 to 100).

LMPHW continues to participate in joint meetings with other local health departments and emergency management agencies that would partner in a response to a public health emergency in the Louisville Metropolitan Statistical Area. Furthermore, LMPHW representatives participate and contribute to initiatives undertaken by the Local Emergency Planning Committee and the Weapons of Mass Destruction Crisis Group.

[55] Ibid.

LMPHW is in the process of applying for voluntary accreditation. Accreditation documents the capacity of the health department to deliver the Ten Essential Public Health Services and three core functions: 1) Assurance, 2) Assessment, and 3) Policy Development.

In addition, LMPHW is working with the Kentucky Center for Performance Excellence, which promotes the Baldrige Criteria For Performance Excellence (KYCPE) in Kentucky. The Baldrige Criteria is a set of inter-related questions across seven categories: 1) Leadership, 2) Strategic Planning, 3) Customer Focus, 4) Measurement, Analysis and Knowledge Management, 5) Workforce Focus, 6) Operations Focus, and 7) Results. The Baldrige Criteria help integrate and meet stakeholder requirements, guide planning activities, and show how measuring activities can create best-in-class results.

HL 2020 Target:

- Activate designated personnel in response to a public emergency at 60 minutes or less.

Recommendations:

- LMPHW to submit application for voluntary national accreditation to the Public Health Accreditation Board (PHAB) by 2015.
- Develop and maintain a community health dashboard that tracks progress on meeting HL 2020 targets and other health indicators, as well as provides resources for best practices.
- Increase the number of local healthcare facilities that serve as sentinel sites for disease surveillance.
- Advocate for adequate federal and state funding to support all-hazards preparedness.
- Increase the number of healthcare facilities and providers that actively participate in the Kentucky Health Information Exchange (KHIE).
- Increase the number of healthcare facilities and providers who have adopted electronic health records (EHR).

Social Determinants of Health

Goal: Create social and physical environments that promote good health for all Louisville Metro residents

Social determinants of health are conditions (economic, social, and physical) in the environments in which people are born, live, work, play, worship, and age that affect a wide range of health, functioning, and quality of life outcomes, risks, and burdens.[56] Health is therefore created in homes, schools, workplaces, neighborhoods and communities. Research has demonstrated that access to proven health protective resources like clean air, healthy food, safe recreational space, opportunities for high-quality education, living wage employment, and adequate housing, is highly dependent on where one lives and affects how long one lives. For instance, people who reside in different neighborhoods throughout Louisville Metro are likely to live, on average, from 70.2 years in Portland (well below the U.S. average of 79.0 years) versus up to 81.4 years in the northeastern part of Jefferson County. This is a difference of more than 10 years across our community.[57] Thus, where we live impacts both the quality of our lives, as well as how long we live.

In order to create social and physical environments that promote good health for all, we must focus on the underlying conditions – the root causes such as economic, racial, and residential segregation. Within the social determinants of health framework, all policy is considered as health policy, which plays a role in promoting a healthy environment and culture. Research shows that historic and contemporary residential segregation combined with racial differences in socioeconomic factors such as education and employment, are fundamental causes of racial disparities in health.[58]

Louisville Metro remains highly segregated primarily between the black and white populations, which play out in terms of income, wealth, and health outcomes. Research shows an estimated 53% of African Americans would have to move in order for our community to be fully integrated.[59] The housing market in Louisville, while notably different in terms of the renter/owner balance from seven years ago, remains economically, geographically, racially, and environmentally segregated.

Unemployment is associated with premature mortality, cardiovascular disease, hypertension, depression, and suicide.[60] Unemployment rates for Louisville Metro are among the highest in the nation (10.2% in 2011) with large disparities existing between West and East Louisville residents and between blacks and whites.

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[56] Healthy People 2020. U.S. Department of Health and Human Services. Retrieved from http://www.healthypeople.gov/2020/topic-sobjectives2020/overview.aspx?topicid=39. Accessed December 2013.

[57] Obtained from Center for Health Equity, Louisville Metro Department of Public Health and Wellness.

[58] Williams & Collins (2001) http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1497358/

[59] Louisville Metro Health Equity Report 2011. Page 8. Louisville Metro Department of Public Health and Wellness. 2011. Retrieved from http://www.louisvilleky.gov/NR/rdonlyres/29925903-E77F-46E5-8ACF-B801520B5BD2/0/HERFINALJAN23.pdf. Accessed December 2013.

[60] Health Impact Partners. Retrieved from http://www.humanimpact.org/evidencebase/category/unemployment_and_underemployment_are_associated_with_poor_health_outcomes. Accessed December 2013.

Homelessness is another social determinant of health. Without homes, people are exposed to the elements, disease, violence, unsanitary conditions, malnutrition, stress, and addictive substances. Consequently, their rates of serious illnesses and injuries are three to six times the rates of non-homeless people.[59] These conditions often coexist with a complex mix of severe physical, psychiatric, substance use, and social problems. In the U.S., 1% of persons experience homelessness each year, while 6% of persons diagnosed with TB have been homeless in the previous year.[61]

As of 2011, a total of 10,187 people accessed homeless services in the Louisville Metro area. During the 2011-2012 school year, JCPS reported 15,316 homeless students, a 21% increase from the previous school year.[62]

Poverty is steadily increasing in the U.S., with a growing gap between the lowest income households and the highest income households. A total of 46.2 million Americans were living in poverty in 2010. Seventeen percent of Louisville residents have incomes below poverty level, compared to a national rate of 17.2%. [63]

Food deserts are urban neighborhoods and rural towns with constrained or very limited access to affordable and nutritious foods. The U.S. Department of Agriculture (USDA) food desert designation refers to areas that meet combined low-income and low-access thresholds. These are areas with a poverty rate of 20% or greater; and where 33% or more of the population live more than one mile from a supermarket or large grocery store.[64]

However, the absence of healthy foods in combination with transportation barriers typically is not the only burden. Worst still, these communities are frequently inundated by fast food restaurants and convenience stores with limited supplies of healthy, fresh and affordable options, alongside excessive high calorie, low nutrition "junk" food. The combined result is a food environment that promotes poor diet that can lead to high levels of obesity and other diet-related diseases, including heart disease and diabetes. Research has shown that residents living in food deserts are more likely to suffer from diet-related diseases such as diabetes and heart disease (after controlling for race, income, and education), and to die prematurely.[65]

[61] Ibid.
[62] TB Notes Newsletter, Surveillance, Epidemiology, Outbreak and Investigations. No. 1, 2011. Retrieved from http://www.cdc.gov/tb/publications/newsletters/notes/TBN_1_11/images/tbn111.pdf. Accessed December 2013.
[63] State of Metropolitan Housing Report 2013. Metropolitan Housing Coalition. Retrieved from http://www.metropolitanhousing.org/2013/12/09/mhc-to-release-2013-state-of-metropolitan-housing-report/. Accessed December 2013.
[64] Food Deserts. U.S. Department of Agriculture. Retrieved from http://apps.ams.usda.gov/fooddeserts/foodDeserts.aspx. Accessed December 2013.
[65] Ibid.

Food insecurity is a condition in which people don't have access to sufficient, safe, and nutritious food to maintain a healthy and active life.[66] Food insecurity can have negative consequences on health, such as increased risk of obesity and diabetes, and may cause physical impairments and psychological effects. Households whose income levels are at or below 130% of the federal poverty level (gross monthly income for a family of four, $2,552.00 per month) are eligible for assistance through the Supplemental Nutrition Assistance Program (SNAP), commonly known as the food stamp program.[67] As of 2011, 8.6% of Louisville Metro residents eligible for SNAP were not enrolled in the program.

Programs

The Center for Health Equity (CHE) works to increase awareness and understanding of the root causes of health inequities that exist across our city, to move discussions beyond individual choice-making toward the underlying community environmental factors that perpetuate health. CHE engages public and private community partners, as well as policy makers, in the creation of opportunities for improved population health, with an emphasis on addressing health disparities and improving health equity, through a "health-in-all-policies" framework. CHE helped lead the strategic planning efforts of the MHHM community coalition who identified healthy eating and active living, prevention, and tobacco-free living and mental and behavioral health as priorities.

HL 2020 Targets:

- Reduce the number of homeless people from 10,187 to 8,150.
- Reduce the unemployment rate from 10.2 to 9.2.
- Reduce the percentage of adults at or below poverty level from 17.2% to 15.5%.
- Reduce the percentage of people living in food deserts in Louisville from 8.3% to 7.5%.
- Reduce the proportion of people eligible for SNAP but not enrolled from 8.6% to 7.7%.
- Reduce the gap in life expectancy between whites and blacks in Louisville Metro from 4.6 years to 4.1 years.

Recommendations

- Decrease residential segregation (by income, race, ethnicity, and gender) by changing policies and land-development regulations to promote mixed income neighborhoods and communities throughout Louisville Metro.
- Increase opportunities for affordable ownership and rental housing, including multi-family options, alternate tenures, and innovative equity building options in all parts of Louisville Metro.
- Decrease the disparity in food access across Louisville Metro by establishing full-scale grocery stores in food deserts and expanding farmers markets and community gardens.
- Advocate for establishing a living wage by raising the minimum wage for workers in Louisville.
- Advocate for a state Earned Income Tax Credit (EITC), which research has suggested to lift families out of poverty.
- Implement a "Health-in-All-Policies" approach by applying health and equity impact assessment processes for all proposed state and local policies and programs.

[66] Definitions of Food Security. Economic Research Service, U.S. Department of Agriculture. Retreived from http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx. December 2013.

[67] Supplemental Nutrition Assistance Program Eligibility. Food and Nutrition Service, U.S. Department of Agriculture. Retrieved from http://www.fns.usda.gov/snap/eligibility. Accessed December 2013.

Substance Abuse

Goal: Reduce the number of Louisville Metro adults and youth engaging in risky behaviors such as binge drinking and drug abuse

Substance abuse involving drugs, alcohol, or both is associated with a range of destructive social conditions, including family disruptions, financial problems, lost productivity, low educational attainment, domestic violence, child abuse, and crime. More than half of all people arrested in the U.S., including for homicide, assault and theft, test positive for illicit drugs.[68] Substance abuse is also associated with a range of health problems like pregnancy complications, teen pregnancy, cardiovascular conditions, suicide, and sexually transmitted diseases.

Excessive alcohol use is the third leading lifestyle-related cause of death for people in the U.S each year.[69] Binge drinking (defined as consuming four or more drinks for a woman or five or more drinks for a man in a short period of time) is the most common pattern of excessive alcohol use.[70] However, most people who binge drink are not alcohol dependent.

Binge drinking is also more common among young adults. Approximately 90% of the alcohol consumed by youth under the age of 21 is in the form of binge drinks.[71] During the calendar year 2011-2012, 20% of JCPS students grades 6 thru 12 reported using alcohol during the past 30 days and 11% reported binge drinking. Fifteen percent reported using marijuana in the past 30 days and 6.5 % reported using other illegal drugs. In addition, more than one-quarter of students did not think there was a risk of self harm from smoking marijuana.[72]

The illegal use of prescription drugs or painkillers has had a steady rise in the past decade. Prescription or over-the-counter drugs used non-medically resulted in the same number of emergency department visits as the use of illegal drugs like heroin and cocaine in 2008.[73] As a result of the increase in prescription drug abuse, deaths from the overdose of pharmaceutical drugs have increased. The overdose death rate in Louisville Metro was among the highest rates in the nation (16 deaths per 100,000 population), with 85% of the overdose deaths attributed to prescription drugs.

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[68] "Opioids drive continued increase in drug overdose deaths." U.S. Centers for Disease Control and Prevention. February 20, 2013. Retrieved from http://www.cdc.gov/media/releases/2013/p0220_drug_overdose_deaths.html. Accessed December 2013.
[69] Excessive Drug Use: Addressing A Leading Risk For Death, Chronic Disease, and Injury, At A Glance 2011. U.S. Centers for Disease Control and Prevention. 2011. Retrieved from http://www.cdc.gov/chronicdisease/resources/publications/aag/alcohol.htm. Accessed December 2013.
[70] Ibid.
[71] Fact Sheets - Binge Drinking. U.S. Centers for Disease Control and Prevention. 2012. Retrieved from http://www.cdc.gov/alcohol/fact-sheets/binge-drinking.htm. Accessed December 2013.
[72] 2011 - 2012 Safe and Drug Free Schools Survey. Jefferson County Public Schools.
[73] "Unintentional Drug Poisoning in the United States." July 2010. U.S. Centers for Disease Control and Prevention. July 2010. Accessed December 2013.

Programs

Jefferson County Alcohol and Drug Abuse Center (JADAC) provides inpatient and outpatient intensive drug treatment services for the Louisville Metro area.

The LMPHW MORE Center (Methadone Opiate Rehabilitation & Education) is a federally supported outpatient medication-assisted therapy program. The staff provides medically monitored drug treatment and related counseling services to patients who are physiologically dependent upon a narcotic drug, such as heroin, morphine, and OxyContin. The MORE Center is currently funded to serve 200 patients. The MORE Center's mission is to empower persons addicted to opioid drugs so they will improve their quality of life.

HL 2020 Targets:

- Reduce the percentage of adults engaging in binge drinking during the past 30 days from 16% to 14.4%.
- Reduce the percentage of students (grades 6 to 12) engaging in binge drinking during the past 30 days from 11% to 10%.
- Reduce the percentage of students (ages 12 to 17) reporting use of alcohol or any illicit drugs during the past 30 days from 26.6% to 23.9%.
- Reduce the death rate caused by overdose (unintentional poisoning from drugs) from 16 to 14.4 per 100,000 population.

Recommendations:

- Strictly enforce alcohol-control policies.
- Improve referral and access to rehabilitation services provided by local providers who offer evidence-based programs.
- Advocate for increased funding and access for residential and outpatient substance abuse treatment programs for individuals of all ages.
- Reduce the population-based density of alcohol retail outlets in Louisville Metro/Jefferson County to that of other counties in Kentucky.
- Adopt and implement a "reality-based approach" as opposed to an emphasis on "abstinence" or "zero-tolerance" as a prevention strategy for teen drug and alcohol use. A reality-based approach provides teens with honest, science-based information; promotes an understanding of the legal and social consequences of drug use, and prioritizes safety through personal responsibility and knowledge.

Data Notes

For purposes of this report, specific terms of reference were selected. White and black refer to race categories. Other race categories such as Asian/Pacific Islander and American Indian are only mentioned in the analysis if appropriate. Hispanic, however, refers to an ethnic category and not one race. This report provides data for primarily white and black races. Due to a limited Hispanic sample, reliable data for this category was not available at the time of this report.

This report uses the term "Louisville Metro" to represent the entire Jefferson County region. This includes existing independent municipalities within the Louisville Metro area.

Data sources utilized in this report include data from vital statistics obtained from Kentucky Department for Public Health, U.S. Census, U.S. Centers for Disease Control and Prevention, Annie E. Casey Foundation KIDS COUNT, Jefferson County Public Schools, as well as data collected and maintained at Louisville Metro Department of Public Health and Wellness (LMPHW). Comparisons to state and national data, *Healthy People 2020*, peer city Nashville, TN, trends over time, and geographic distributions are included on selected indicators. In accordance with the *Healthy People 2020*, a 10% improvement was used as the target-setting method for most indicators.

In most cases this report utilized 2010 data as a means to establish consistent baselines. Birth and death statistics were obtained from the Kentucky Cabinet for Health and Family Services Department for Public Health and were preliminary at the time this report was compiled.

This report also includes data from the Behavioral Risk Factor Surveillance System (BRFSS) phone survey. This survey gathers information about risk factors associated with chronic disease for Louisville Metro residents and is conducted annually by the Kentucky Department for Public Health. It is important to note that the Louisville Metro Department of Public Health and Wellness also conducts a separate BRFSS in an effort to gather additional information at the local level. Louisville Metro (LM) BRFSS data used for this report was from the last survey that was conducted at the local level by LMPHW in 2008. More recent LM BRFSS data will be available in 2014.

The rates for disease-related hospitalizations are generally presented as a crude (unadjusted) rate per 100,000 population. The death (mortality) rates are computed as age-adjusted rates. The age-adjusted process compensates for the differences in the age composition of the population. In addition to crude rates, age-specific rates and rates based on the number of live births are used in maternal and child health analysis.

Appendix

Louisville Metro Board of Health

Dr. Gabriela Alcade, Foundation for a Healthy Kentucky (Vice Chair)
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Mayor's Healthy Hometown Movement (MHHM) Leadership Team

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Dr. Ted Smith, Chief, Metro Economic Growth and Innovation
Kellie R. Watson, Director, Human Resources
Vicki A. Welch, Metro Council (13th District)

Mayor's Healthy Hometown Movement Strategic Plan

Priority 1: Mental/Behavioral Health - Ensuring community-wide mental health and people's ability to realize their full potential, cope with stresses of life, work productively, and make meaningful contributions to Louisville

Goal	Objective
1. Promote positive early childhood development	↑ safe and stable homes for children.
	↓ abuse and neglect in the home
	Ensure cognitive and physical developmental benchmarks met
2. Facilitate social connectedness and community engagement across lifespan	↑ social/civic engagement
	↑ support systems
3. Provide individuals and families with supports they need to maintain positive mental well-being	↑ employment rate
	Promote early identification of mental health needs and access to quality services
	↑ integration of mental and behavioral health

Priority 2: Healthy Eating and Active Living - Increasing physical activity and healthy eating to reduce people's risk of chronic conditions and to reduce obesity and maintain healthy body weight.

Goal	Objective
1. Increase fitness	Encourage community design and development that supports PA
	Build a culture of active living
2. Increase nutrition	↑ access to, and consumption of, healthy and affordable foods
	Build a Healthy Food Culture
	↑ early childhood nutrition
3. Decrease rates of chronic disease	↓ rate of hypertension
	↓ type II diabetes
	↑ pre-diabetes screening
	↓ rates of hyperlipidemia
	↑ rate of diabetic patients having a A1C checked

Priority 3: Clean and Tobacco-Free Across All Community Settings - Promoting a healthy environment to reduce Louisville residents' risk of developing heart disease, various cancers, COPD and other diseases, and dying prematurely

Goal	Objective
1. Reduce/eliminate exposure to tobacco-related health hazards	↓ consumption of tobacco products and chemical dependence on nicotine
	↓ secondary/tertiary exposure to tobacco-related health hazard
2. Reduce exposure to environmental health hazards	↓ exposure to indoor air pollution and chemicals
	↑ enforcement of current laws

Mayor's Healthy Hometown Community Coalition

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