ACCESS TO CARE

Cleveland, Ohio 2019 Report





Cleveland Department of Public Health

Cleveland Department of Public Health

Access to Care

Cleveland, Ohio 2019 Report

Last Updated: 12/19/2019

Contributors

Katherine Romig, MPH, SIT
Adam Nation, MPH, MPP
Emily Frantz, MPH, PM-LPC, CSSGB
Persis Sosiak, MPH, BSN, RN
Merle Gordon, MPA
Stephanie Pike Moore, MPH
Anna Pearl Wright
Erin McGinty
Katherine Lyden

Special Thanks to

Cleveland Department of Public Health

Division of Environment

Division of Air Quality

Office of Minority Health

Office of HIV/AIDS Services

MomsFirst

Old Brooklyn

MetroHealth System

ASIA Inc.

Nueva Luz

The Centers for Families and Children

AIDS Funding Collaborative

Neighborhood Family Practice

Case Western Reserve University - Health Data Matters

Case Western Reserve University - Prevention Research Center

Case Western Reserve Unviersity - Cancer Center

Center for Community Solutions

Medworks

Cleveland City Council

Cleveland Department of Aging

United Way

Sisters Charity Foundation

City of Cleveland

Care Alliance

Frontline Services

Contents

Executive Summary	05
Introduction & Process	06
Defining Access to Care	08
Un/Underserved Populations	09
Gaps & Barriers to Care	10
Health Outcomes & Indicators	18
Emerging Issues	25
Implications & Future Direction	27
Data Tables & Sources	30

Executive Summary

Historically, the Cleveland Department of Public Health (CDPH) has worked to understand and address the health needs of Clevelanders through a county-wide health assessment and improvement planning process convened through the Health Improvement Partnership of Cuyahoga County (HIP-Cuyahoga). In early 2018, we created an opportunity to expound upon HIP-Cuyahoga Community Health Status Assessment indicators by comprehensively assessing the access to care within the City of Cleveland, which contains one-quarter of the county population. To understand the unique and vastly different needs of Cleveland residents, CDPH convened a broad range of individuals representing various sectors including academic institutions, hospitals, community clinics, healthcare providers, neighboring health departments, social service, philanthropy, non-profits, policy makers, and residents. Employing a collaborative approach, CDPH and these community partners convened over the course of several months to identify un/underserved populations, assess the availability of health care services and capacity of the healthcare system to meet community needs, determine the causes of gaps and barriers to care, and to uncover any emerging issues.

Key findings summarized within this Access to Care Report include:



Significant disparities exist based on geographic, economic, and demographic factors. Key health indicator data reveal significant differences in life expectancy based on where an individual lives (geographic); two to three times more African-American and Hispanic residents experience poverty as whites in the City of Cleveland (economic); and African American babies are three times as likely to die compared to white babies (demographic).



Considering the capacity of the health care system, data reveal that while resources exist to meet community needs, services are un/under-utilized. This suggests opportunities exist to create awareness of resources as well as education and navigation assistance. An opportunity exists to establish an ongoing partnership across health, social, and other sectors of organizations to more effectively leverage community assets and to continue collaborative work towards meeting community needs.



Emerging issues facing Cleveland residents include changes to health care service delivery methods (e.g., new technologies, such as telehealth), state/federal budget and policy implications, shifting priorities and funding among philanthropic organizations, and healthcare system capacity changes (specifically, a need to recruit, train, and retain a qualified community health workforce).

Throughout this journey, CDPH is grateful for the support and collaborative engagement of many partner organizations and community members who contributed towards understanding the needs of our most disparate populations.

Introduction & Process

Background

In June 2018, the Cleveland Department of Public Health (CDPH) identified an opportunity to examine access to care within the City of Cleveland. CDPH engaged an internal planning team consisting of the City of Cleveland's Chief of Public Affairs, the CDPH Director, CDPH administrative staff, the Commissioners of Air Quality, Environment, and Health, as well as other staff to assess access to care needs among Cleveland residents. This internal planning team was charged with systematically reviewing existing access to care-related data, primarily contained within the 2013 Community Health Needs Assessment, as well as various community, hospital, and programmatic reports to understand resident needs. Additionally, the planning team developed a list of potential community partner organizations that could contribute towards understanding the community and assessing the gaps in access to quality, affordable, and accessible care and developing strategies to address them.

This Access to Care Report is the product of a collaborative process to comprehensively assess access to care needs among un/underserved populations within the City of Cleveland, as well as the capacity and resources available to meet those needs using both quantitative and qualitative data sources.

Stakeholder Engagement

Evaluating access to care in the City of Cleveland began by engaging a small group of internal stakeholders within CDPH to identify the structure and necessary components that would guide this process and the data evaluated in the report. Following this meeting, the team engaged with several other programs within the Health Department to identify other opportunities for evaluating data as it pertained to care access.

External stakeholders were engaged in a two-step mixed-methods approach in an attempt to highlight and capture both quantitative and qualitative data to best understand issues surrounding access to care. Using preliminary analyses of secondary data (quantitative), the team presented to data experts, epidemiologists, and researchers from the City of Cleveland to gather input on several indicators. These analyses were tweaked based on feedback and then summarized and presented to a group of community stakeholders to foster discussion and gather qualitative feedback on gaps in the data itself.

Internal Stakeholders

Attendees: CDPH Office of Communicable Disease Surveillance and Epidemiology, Commissioners of Health, Environment, and Air Quality, Communications, Department Director.



Purpose: Identify report needs and highlight available data sources.

Follow-up meetings were held with several programs and offices within CDPH including MomsFirst, the Office of HIV/AIDS, and the Office on Minority Health.



Data Experts

Attendees: Health Data Matters, Better Health Partnership, Cuyahoga County Board of Health, Baldwin Wallace University, and CDPH.

Purpose: Convene key data analysts contributors to review and refresh Cleveland-specific datasets.

Community Stakeholders

Attendees: Over 20 local community partner organizations within the City of Cleveland.

Purpose: Share the preliminary Access to Care Report with local partners in the community that work in key indicator areas. Develop a shared definition of 'access to care'. Identify and discuss access to care needs identified and possible strategies to address gaps/barriers to care. Gather input to refine the Community Resource Guide.



Defining Access to Care

Since the 1980s, characteristics that traditionally define access to care have been summarized into five main groupings described below.

The 5 A's of Access

ffordability

Can the patient pay for insurance or afford out-of-pocket expenses?

vailabilty

Do those providing care have the resources and capacity to perform essential services?

ccessibility

Is the provider or facility in a location that can be reached easily?

ccomodation

Is the provider operated in a way that meets the needs of the patient (e.g., hours of operation, communication, scheduling)?



Is the patient comfortable with the characteristics of their provider (e.g., age, sex, race/ethnicity, social class)?

Developing a mutual understanding and definition of access to care allows community partners to converge around a clear vision and strategy for the City of Cleveland. During the convening, partners discussed the applicability of the five A's to assess aspects of access to care among residents. One key theme emerged based on a comparison of 5's among partners: that while healthcare facilities and other resources are available, oftentimes within less than a mile of their homes, individuals are either unaware or not utilizing them. Partners discussed the need for insurance and patient assistance, health literacy, and translation services to identify available resources and/or help to navigate the health care system may be significant opportunities. An examination of the 5 A's also led to a robust discussion among partner organizations on ways to more effectively leverage existing resources by working together to build capacity and provide a roadmap to help individuals navigate the health care system, as well as social, behavioral health, and other needs across sectors.

"You want to see if all of the effort that the City is putting in is making an impact. The data will tell the story."

-Community Partner of CDPH

Un/Underserved Populations

This report highlights disparities which exist among City of Cleveland residents, whether they are geographic, demographic, economic, or other variables. Concepts of health equity are fundamental to understanding and working towards establishing equitable living environments.

In order to understand health disparities that currently exist as they relate to an individual's ability to access or obtain health services, this report examines several health outcomes and indicators to focus specifically on how different populations may experience health and health care in disparate ways.

Economic equality is one significant disparity identified which shows poorer health status among those residing in lower-income neighborhoods. In research from Kramer MR, Neighborhoods and Health, wealthier communities benefit the health of their residents, whereas poorer communities pose increased risks to their residents' health.

Employment Inequality

23.5%

of black residents report unemployment versus 9.1% for white residents





Income Inequality

\$20,937

median income of black residents versus \$38,614 for white residents

"The goal is to identify local health disparity needs with an emphasis on informing, educating and empowering at risk communities. The office is responsible for activating efforts to educate citizens and professionals on imperative health care issues and seeks to provide minority health data and technical assistance to local agencies working to improve the health status of minority populations."

-Cleveland Department of Public Health, Office of Minority Health

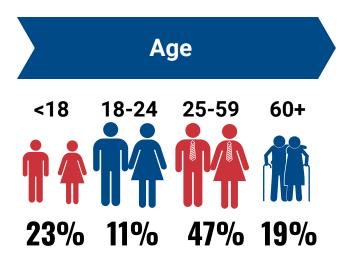


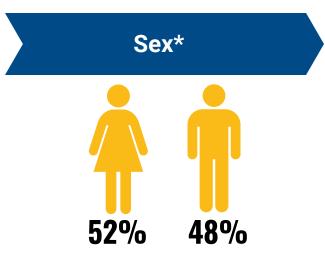
Gaps & Barriers to Care

10

The City of Cleveland

Cleveland is a unique city with a rich history. Peaking at a population of 914,000 in 1950, the City of Cleveland has seen a decline in population since the 1960s to nearly 390,000 in 2017. Cleveland has experienced a great transition from an industrial economy to a knowledge-based economy which has moved the City out of the recession. It is also experiencing a migration in of younger, higher net worth individuals.





*Indicates sex at birth

Race

50%

Black or **African American** **40%**

White or Caucasian **2%**

Asian

1%

American Indian or Alaska Native 4%

Multiracial

Other

Ethnicity

Hispanic or Latino

11%

89%

Hispanic or Latino **Not Hispanic** or Latino



Asian

37%

24%

Chinese

Asian Indian

30%

Nepalese

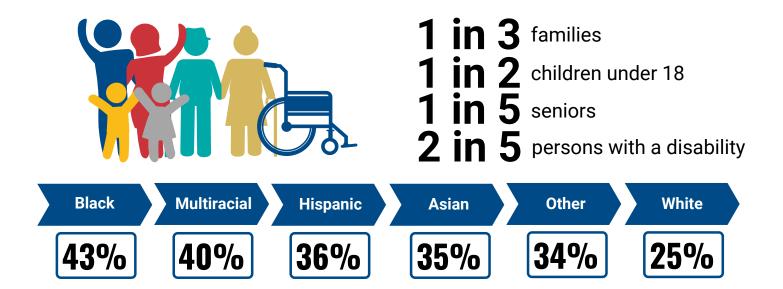
Other Asian

Data and sources available in Data Sources & Tables Section

Poverty

Poverty affects a third of the City of Cleveland's residents. In the span of five years, the rate of poverty remains relatively unchanged across the City. However, during this same time, the gaps in income have grown. The mean income deficit, or the average number of dollars it would take an individual to reach the poverty threshold, has grown from \$6,525 to \$6,768 which suggests that overcoming poverty may be getting further out of reach for many Cleveland residents.

Populations Experiencing Poverty

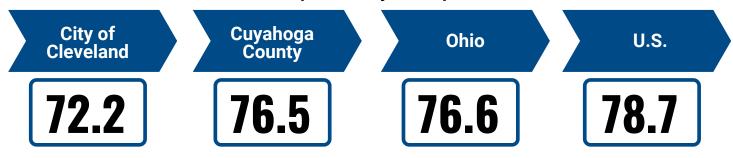


Poverty and Life Expectancy

"The relationship between health and socioeconomic factors has been well documented and these data show that average life expectancy in the City of Cleveland is four years less... compared to the Cuyahoga County overall."

-2013 Community Health Status Assessment for Cuyahoga County, Ohio

2016 Life Expectancy Comparison in Years



In the City of Cleveland, life expectancy can differ in the Cleveland zipcodes by about 13 years, with the largest disparities observed among those with lower socioeconomic status. Of growing concern is also that life expectancy in the City is declining, with those born in 2016 being expected to live **1.5 fewer years** than those born in 2010.

Housing & Living

Coupled with the abundance of poverty, basic necessities such as stable, healthy, safe and affordable housing, access to nutritious foods, and reliable transportation are out of reach for a substantial amount of the population. Many residents may be forced to make trade-offs between basic necessities and their health care.

Housing



20%

of residents do not live in the same house they did 12 months ago 74 hours

The number of hours a resident making minimum wage has to work each week to afford a standard two-bedroom apartment



Food



35%

of residents receive Supplemental Nutrition Assistance Program Benefits (SNAP) or food stamps 62%

of those using emergency food assistance had to choose between paying for food or paying for medicine



Transportation



24%

of households do not have access to a vehicle

2x

Patients who rely on the bus are 2x as likely to miss an appointment than those with their own vehicle



Data and sources available in Data Sources & Tables Section

Health Literacy

Health literacy refers to the degree to which an individual has the capacity to obtain, communicate, process, and understand health information and services in order to make appropriate health decisions. Low health literacy may contribute to a number of challenges, including a patient being unable to fully understand consent forms or other written education information, having difficulty filling out forms, not understanding how and when to take prescribed medicine, not being able to decipher their health problem, not understanding their insurance benefit information, not able to process what their healthcare provider is recommending, and general difficulties in navigating the healthcare system.

Up to **80**% of medical information provided by healthcare providers is forgotten immediately by patients; **half** of the information that is remembered is **incorrect**. Approximately **20**% of American adults read at or below the **fifth grade level**. However, most health information materials are written at the **tenth grade level** or above.

Literacy

66%

of Cleveland adults are functionally illiterate with some neighborhoods having rates as high as 97%

Cost

\$106-\$238

Billion

is lost every year on health care costs due to a disconnect in the delivery of health information



Ways to Improve Health Literacy

1

Conduct patient-centered visits to engage a person/patient in dialogue where there is more listening and asking specific questions around understanding.

2

Explain items using simple and plain language and use analogies and non-medical language can assist with conversations. Use of translation services to assist

3

Use key messages and use them repetitively to help patients remember the information they are being given.

conversations.

Health Insurance

Individuals who do not have health insurance have difficulty accessing needed clinical care, prevention services, and/or may choose not to seek medical care because of financial concerns. Not obtaining needed or timely health care can lead to poorer health outcomes and potentially greater long-term medical needs and financial debt. Medicaid expansion in Ohio and the implementation of the Affordable Care Act have increased individuals ability to access insurance and healthcare resources. Additionally, community clinics have expanded services, yet a large portion of the City of Cleveland's population continues to be uninsured.



10%

of residents are still uninsured. This is a decrease from 2016 when 12% of the population was uninsured

In 2017, it was estimated that **15%** of men and women between the ages of 18-64 reported they did not have health insurance. That is over **36,000** City of Cleveland residents **without** health insurance.

39%

are covered by employer coverage

43%

are covered by Medicaid 17%

are covered by Medicare

8%

are covered by other private insurance

1%

are covered by Military or VA

Uninsured Populations



13% MEN

AND



8% WOMEN



of the white population is uninsured

of the Hispanic population is uninsured

of the black population is uninsured

10%

Capacity of the Health Care System

The City of Cleveland has four major hospital systems: University Hospitals, MetroHealth, Cleveland Clinic, and St. Vincent Charity Hospitals. In the 2013 Community Health Needs Assessment, the ratio of physician to population in Cleveland was shown to be higher than the national ratio. Despite this, most of the City is described as being within a Health Professional Shortage Area (HPSA) by the Health Resources and Services Administration. HPSA designations are used to identify areas and population groups within the United States that are experiencing a shortage of health professionals. There are three categories of HPSA designation based on the health discipline that is experiencing a shortage:



Primary Health

26 %

of residents are estimated to be under-served by primary health practitioners



Dental Health

39 %

of residents are estimated to be under-served by dental health practitioners



Mental Health

There is a lack of data highlighting those who are served and underserved by mental health practitioners

Care Utilization and Need

Primary Health

24.5%

of adults report not having visited doctor for routine checkup within the past year **Dental Health**

48.6%

of adults report not having visited a dentist or dental clinic within the past year **Mental Health**

16.5%

Adults reported having mental health that was not good for ≥14 days in the past 30 days

Mental Health & Substance Abuse

Substance abuse and mental health can cause a rippling effect on a person, families, and the community. Stigma may prevent someone from accessing the care they need, so identifying and treating an illness early on can be the best prevention method.

Mental Health

26.6

children out of every 1,000 have substantiated reports of maltreatment which is 2x higher than the rate in Cuyahoga County



32.3-36.6%

of CMSD high school students said they felt sad or hopeless almost every day for 2 weeks or more in a row in the past 12 months

Suicide

12.2

residents per 100,000 died from suicide



20.9

men per 100,000 died from suicide

Substance Abuse Disorder

61.8

per 100,000 died of opiaterelated causes



2.4x

Men were 2x as likely to die of opiate-related causes than women

Violence & Crime

Experiencing violence and crime can impact the quality of life and health status of an individual. Many residents experience violence or crime within their own families or neighborhoods. It can contribute to a high level of stress and impact physical health and lead to unhealthy behaviors.

Violent Crimes in 2017 were



6,285

number of violent crimes reported that include offenses of homicide, rape, robbery, and aggrevated assualt

compared to

6,565

number of violent crimes reported that include offenses of homicide, rape, robbery, and aggrevated assualt in **2016**

Homicide



121

number of homicides

Rape





number of rapes

Property Crime in 2017 were



20,070

number of property crimes reported that include offenses of burglary, larceny-theft, motor vehicle theft, and arson compared to

21,763

number of property crimes reported that include offenses of burglary, larceny-theft, motor vehicle theft, and arson in **2016**

Burglary



6,068

number of burglaries reported

Motor Vehicle Theft

3,389

number of motor vehicle thefts reported

Maternal, Infant, & Child Health

Maternal (mother) care is directly related to the birth of the child and how a mother takes care of herself before, during, and after the pregnancy. One of the most important areas for monitoring and assessing relates to the health of a most vulnerable population: infants and children.

In 2017, there were



13.7

births per 1,000 people

BUT

13.9

infants died out of every 1,000 born



Deaths

infants out of every
1,000 live births died
within the first 28 days

24.9

children (aged 1-14 years) died out of every 100,000 children

Vaccination



almost 80% of children in the City of Cleveland were up-to-date on their vaccination series by kindergarten

Births



3.5%

of infants born were very preterm (less than 32 weeks)



33

number of teen births (aged 15-19) per 1,000 females



14% of live births were low birthweight (less than

2500 grams)

Data and sources available in Data Sources & Tables Section

Prenatal Care

Access to early and high quality prenatal care allows mothers to maintain their own health and the health of their babies. By getting prenatal care early on, doctors have more opportunity to spot and treat unexpected problems, increase safe deliveries, and promote good health in the first few days of life.

In 2017, there were



64 % of mothers receiving prenatal care in the first trimester

compared to

61% of mothers receiving prenatal care in the first trimester in 2010

Insurance Matters



4.4x

Uninsured pregnant women are 4.4 times as likely to receive inadequate prenatal care compared to those with private insurance

Race Matters



Black women are 60% more likely to receive inadequate prenatal care compared to white women

3x & & &

Black infants are 3 times more likely to die before their 1st birthday than white infants

Geographic Accessibilty



On average, pregnant women live 1.1 miles away with some as far as 3.2 miles from a OB/GYN facility

Tobacco Use



Women with inadequate prenatal care were 40% more likely to have smoked during their last trimester than women with high quality care

In the City of Cleveland, there has been a steady rise in sexually transmitted infections (STIs). Since 2013, the incidence of **chlamydia has increased by 1%**, **gonorrhea has increased by 30%**, and **syphilis has increased by 270%**. STIs are a common, preventable, and treatable health condition, but access to good information, testing, partner notification, and treatment options are critical in reducing the spread of infection.

In 2017, there were

Chlamydia

Gonorrhea

Syphilis



1938

new cases of Chlamydia diagnosed per 100,000 residents 988

new cases of Gonorrhea diagnosed per 100,000 residents 74

new cases of Syphilis diagnosed per 100,000 residents

Age Matters

1×10
77%

youth aged 15-19 was diagnosed with Chlamydia in 2017

of Gonorrhea cases occur among those that are younger than 30 years of age

Race Matters

7.5 4.7 2.6

Black populations are 7.5, 4.7, and 2.6 times as likely to be diagnosed with Gonorrhea, Chlamydia, and Syphilis, respectively, compared to white populations

Risky Behaviors Among Youth



1/3 of high school students are currently sexually active



of those who are sexually active only half report condom use during last intercourse

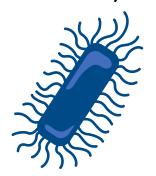


14% to 16% of students report having had sex with 4 or more people

HIV & AIDS

Individuals with HIV or AIDS need high quality health care to mitigate complications related to the disease to ensure and extend quality of life, and to help prevent the spread of infection. Since 2010, the rate of new HIV infections diagnosed per 100,000 people in the city has **increased by 15%.**

In 2017, there were



964.4

persons living with HIV or AIDS per 100,000 residents

AND

27.2

new cases of HIV diagnosed per 100,000 residents

Age Matters

HIV Education Among Youth



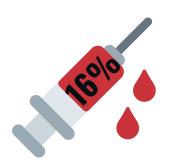
4.7x

Individuals between the ages of 20 and 29 are 4.7 times as likely to be diagnosed with HIV than those 30 years and older



Only 2 out of 3 high school students report ever having been taught about AIDS or HIV infection in school

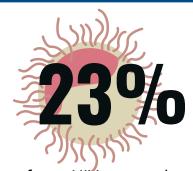
High Risk Populations



Of the population living with AIDS, 16% report intravenous drug use

2^{IN} 3

Roughly 2 out of every 3 new cases of HIV diagnosed were among men who had sex with other men



of new HIV cases who were also tested for syphilis were co-infected with the bacteria

Chronic Disease

In the City of Cleveland, chronic conditions contributed to nearly **75%** of all deaths that occurred between 2008 and 2017. There are numerous disparities observed among these conditions including diagnosis, screening behaviors, and mechanisms to control the disease.

Commonly Linked Chronic Diseases

Heart Diseases

26%

of deaths are from heart diseases

8%

of adults say they've been diagnosed

Cerebrovascular
Diseases
40/0

of deaths are from cerebrovascular diseases (e.g., stroke)

5%

of adults report having had a stroke

Diabetes

3%

of deaths are from diabetes

16%

of adults report having been diagnosed

More than **one-third** (39%) adults report being **obese**. Nearly the same proportion (40%) report having **high blood pressure** but only 69% of those with high blood pressure said they take medicine to control it. Only **70%** of adults report having been screened for high cholesterol in the past 5 years, but of those, 31% report having been **diagnosed with high cholesterol**.

Chronic Lower Respiratory Diseases

5%

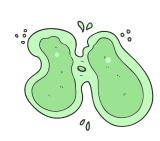
of deaths are from chronic lower respiratory diseases while 10% say they've been diagnosed with COPD and 12% currently have asthma



29%

Cleveland adults say they currently smoke

Cancers



22%

of deaths are from cancers but only 6% say they've been diagnosed

55%

adults age 50-75 have been screened for Colorectal Cancer **70%**

women age 50-74 have had a mammogram

Data and sources available in Data Sources & Tables Section

Lung, breast, prostate, and colorectal cancers are the most common cancers. They account for nearly half of all cancers diagnosed and the greatest number of cancer-related deaths. Early detection through routine screenings coupled with timely, high quality treatment and care may improve prognosis and survival.

Between 2008 and 2017*, there were



907

new cases of lung cancer diagnosed per 100,000 people AND

510

new cases of colorectal cancer diagnosed per 100,000 people



Late Stage Diagnoses

colorectal cancers lung cancers diagnosed in late stage diagnosed in late stage

Lung

Colorectal

Deaths

Race Matters

662 201

lung cancer deaths per 100,000 people

colorectal cancer deaths per 100,000 people

Lung

Black residents

are less likely

to be diagnosed

with colorectal

cancer but

more likely to

Colorectal

Tobacco Use



with lung cancer with a known tobacco history, 55% were current tobacco users and 40% had used tobacco previously

Of those newly diagnosed

die from it than white residents

colorectal cancer diagnosed among Asian residents is in the late or distant stage

*2017 data are preliminary

Data and sources available in Data Sources & Tables Section

Between 2008 and 2017*, there were



1411

new cases of breast cancer diagnosed per 100,000 women AND

1428

new cases of prostate cancer diagnosed per 100,000 men

Late Stage Diagnoses

%

breast cancers diagnosed in late stage

Breast

10%

prostate cancers diagnosed in late stage

Prostate

Deaths

251

breast cancer deaths per 100,000 women

Breast

339

prostate cancer deaths per 100,000 men

Prostate

Tobacco Use



5.5x

Women who currently use tobacco are **5.5 times as likely** to be diagnosed with breast cancer in the late or distant stages than women who have never smoked

Race Matters

Black men are nearly

2x

as likely as white men to be diagnosed with prostate cancer

Asian men & women are

2 - 3 x

more likely
to not have
insurance when
diagnosed with
prostate or
breast cancer

Emerging Issues

Over the course of several meetings, including a large community gathering to review the draft Access to Care Report as well as Cleveland-specific data and trends, partners and CDPH staff identified emerging issues which impact – both positively and negatively – health and access to care among Cleveland residents.

Common themes arose around necessary changes to the healthcare system and availability of primary care, translation services within the clinical setting as well as the types of health messaging both oral and written to ensure individuals understand their health. Technology needs to be addressed, particularly since many neighborhoods in Cleveland have low connectivity or access to the internet, therefore cannot utilize technology tools for chronic care management or making and keeping appointments. There were concerns around disturbing trends in fatal and non-fatal drug overdose rates, rising rates of sexually transmitted infections particularly among youth, rising rates of vaccine-preventable conditions, most notably Hepatitis A which is currently an outbreak within Ohio. Robust discussion took place around the changing demographics in Cleveland including gentrification of some neighborhoods while others are witnessing their neighborhood declining, becoming poorer with fewer resources. Health and social service organizations need to find ways to adapt the types and delivery methods of their programs and services.

Generally, partners were appreciative of Cleveland-specific data and called for more real/close to real time data collection through data sharing platforms including Health Data Matters to ensure the entire community can understand and address shifting population health needs and commit to working together. Key emerging issues identified by partners are summarized by topic area below.

CHANGES TO THE STRUCTURE AND DELIVERY OF SERVICES

The Community Health Worker (CHW) framework provides a culturally-competent framework to reduce barriers to care and has been successfully implemented in neighboring communities. At present, CHWs are not reimbursed under Medicaid or any other insurance. Obtaining funding to employ CHWs as part of a HUB model could assist individuals with enrollment and navigation services to meet their needs.

Telehealth provides an excellent opportunity to leverage technology to efficiently meet health needs; although Ohio is behind most states, Cleveland has an opportunity to explore this new technology. Partners also discussed the Behavioral Health Redesign and Behavior 3

Design theory which would provide an opportunity to more systematically assess aspects of behavioral

health.

"We have two CHW
programs and no way to bill
these folks. We charge them
to have background checks
to be in the clinics. Places all
over the world are using
CHWs and we aren't doing it"

- Community partner of CDPH

Emerging Issues

STATE BUDGET & POLICY IMPLICATIONS

Ohio's Governor, Mike DeWine, along with the new Ohio Department of Health Director, Dr. Amy Acton, have proposed potential increased funding for home-visiting programs, maternal and child health, behavioral health, and social determinants of health; Cleveland partners need to be prepared with data to support the need for additional funding. Additional policies under consideration which could impact health include changes to the Affordable Care Act (ACA), Heartbeat Bill, or defunding of Planned Parenthood, Lead Safe Cleveland Legislation). Other social and political causes with access implications include immigration reform and the anti-vaccination movement.

HEALTHCARE SYSTEM CAPACITY SHIFTS

Workforce shortages exist across sectors to recruit, train, and retain qualified health professionals. Additional training is needed to ensure the workforce remains current in areas in which the field is advancing, such as, use of technology (telehealth) and changing policies (for example, police officers are not accepting "pink slips" which are designed to transport people who have a Consent Decree for mental health issues. Confusion exists among officers due to policy changes of what is Many neighborhoods are becoming mandated of them).

DEMOGRAPHIC SHIFTS

more gentrified with fewer (perceived) resources allocated to impoverished areas. Partners also noted that an excessive amount of advertising for alcohol, cigarettes, and flavored tobacco products are intentionally targeting youth and minority neighborhoods. With more minority populations migrating to Cleveland, translations services are needed for languages other than Spanish, including Asian, Eastern European, and African languages.

SHIFTING PRIORITIES & FUNDING

Philanthropic funding priorities seem to be shifting away from the delivery of primary care services to focus more on social determinants of health.

















Implications & Future Direction

This report highlights several important directions to inform future efforts based on the highlighted data and stakeholder discussions. Key findings and opportunities to address disparities and barriers to care are provided below.

KEY FINDING #1

Resources exist to address many of the communities needs though individuals are not accessing services. Data suggest the City has the capacity to meet community needs: Cleveland is home to four major hospital systems and has a higher physician to population ratio than the national average, but services are under-utilized. For example, data also reveal on average, pregnant women live a maximum of 3.2 miles from an OB/GYN facility, yet only 64% of mothers receive prenatal care within the first trimester.

OPPORTUNITY/FUTURE STRATEGY #1

Opportunities exist to create awareness, provide education, and help individuals navigate resources. CDPH and its partners developed an updated Resource Guide of basic health, housing, educational, and other services available across the City.

KEY FINDING #2

While numerous partnerships exist to address specific health topics and/or populations, no partnership exists to comprehensively assess access to care issues. According to evaluation forms collected among partners during the July 25, 2019 access to care meeting, partners appreciated the opportunity to discuss access to care issues, emerging issues, and potential strategies. They found working in this way with other community organizations to be very informative and helpful towards achieving their individual organizational goals. Should additional partners/organizations be included in the future, partners suggested including the Ohio Department of Health (ODH)/legislators, AIDS Taskforce Foundation, schools/daycare centers, American Cancer Society, County government, and more community-based organizations mainly to collect data from populations with whom they have already built trust, among others.

OPPORTUNITY/FUTURE STRATEGY #2

Future convenings would be helpful to identify community-wide issues and share information across sectors.

Implications & Future Direction

Continued on this page are the additional key findings and opportunities/future strategies proposed to the findings.

KEY FINDING #3

Partners reinforced the need for real-time local data to be used for decision-making and an opportunity to more effectively leverage resources community-wide by working together as opposed to in silos.

OPPORTUNITY/FUTURE STRATEGY #3

Leverage existing city-specific data-sets available, including United Way 211 and Health Data Matters, during future convenings.

KEY FINDING #4

When asked about CDPH's role in the community, partners valued CDPH's contributions as a mobilizer and convener as well as data partner/contributor. Partners also felt CDPH should focus efforts on health promotion and education. CDPH's role in the delivery of direct services was not discussed.

OPPORTUNITY/FUTURE STRATEGY #4

Assess opportunities for future data needs and potential partnerships to address health issues across sectors.



This page is intentionally left blank

Data Tables & Sources

Unemployment	2010 (n=319,367)	2017 (n=310,022)
Unemployment* by Race and Ethnicity		
Black or African American	23.1%	23.5%
American Indian or Alaskan Native	21.6%	15.1%
White or Caucasian	12.6%	9.1%
Asian	7.1%	7.1%
Multiracial	23.9%	15.6%
Other	13.8%	10.4%
Hispanic or Latino	17.4%	12.8%

2010 data come from the 2006-2010 American Community Survey; 2017 data come from the 2013-2017 American Community Survey

Household Income	2010	2017
nousellolu Ilicollie	(n=170,464)	(n=168,496)
Median Income		
Black or African American	\$21,662	\$20,937
Asian	\$39,790	\$30,927
American Indian or Alaskan Native	\$26,016	\$35,337
White or Caucasian	\$35,238	\$38,614
Multiracial	\$25,870	\$24,277
Other	\$28,526	\$29,898
GINI Index**	0.4740	0.5045

*Employment rates are calculated for the population that is 16 years and over

**GINI Index values range from 0-1 with 0 representing total income equality
where everyone is receiving an equal share and 1 representing perfect inequality
where one group of recipients receives all of the income
2010 data come from the 2006-2010 American Community Survey; 2017 data
come from the 2013-2017 American Community Survey

Demographic	2010 (n=409,221)	2017 (n=388,812)
Age		
<18	25.2%	22.9%
18-24	10.1%	11.2%
25-59	47.5%	46.6%
60+	17.2%	19.3%
Gender		
Male	47.4%	47.9%
Female	52.6%	52.1%
Race		
Black or African American	53.1%	50.4%
White or Caucasian	40.2%	39.8%
Asian	1.7%	2.1%
Multiracial	2.2%	4.0%
Other	2.8%	3.7%
Hispanic or Latino Ethnicity		
Hispanic or Latino	9.2%	11.2%
Not Hispanic or Latino	90.8%	88.8%

N/A	37.2%
N/A	24.3%
N/A	8.7%
N/A	29.8%
24.5%	20.8%
37.1%	33.1%
26.8%	29.7%
8.2%	10.3%
4.7%	6.1%
	N/A N/A N/A 24.5% 37.1% 26.8% 8.2%

*Educational attainment is among those 25 years of age and older 2010 data come from the 2006-2010 American Community Survey; 2017 data come from the 2013-2017 American Community Survey

Poverty	2012	2017
English dari dag	(n=388,144)	(n=377,997)
Overall		
Total Population	34.2%	35.2%
Families	29.5%	30.7%
Poverty by Age		
<18	50.8%	51.6%
18-64	30.5%	32.3%
65+	20.2%	20.6%
Poverty by Race and Ethnicity		
Black or African American	41.4%	42.9%
White or Caucasian	24.4%	25.0%
Asian	26.4%	35.0%
Multiracial	42.8%	39.9%
Other	37.9%	33.7%
Hispanic or Latino	41.3%	35.7%

2012 data come from the 2009-2012 American Community Survey; 2017 data come from the 2013-2017 American Community Survey

Life Expectancy	2010	2016
Average Life Expectancy in Years		
City of Cleveland	73.6	72.2
Cuyahoga County	77.9	76.5
Ohio	N/A	77.8*
U.S.	N/A	78.6

2010 data come from the 2013 Community Health Status Assessment for Cuyahoga County, Ohio (2013); 2016 data come from the 2018 Cuyahoga County Community Health Assessment (2018)

Housing & Living	2017
Housing Instability	
Population who live in same house 1 year ago	79.5%
Population who moved within Cuyahoga County	16.1%
Population who moved from within Ohio	1.8%
Population who moved from outside Ohio	1.7%
Population who moved from abroad	0.9%
Access to Food	
Households receiving food stamps/SNAP	35.0%
Tranpsortation	
Households with no vehicle	24.4%
Households with 1 vehicle	44.5%
Households with 2 vehicles	23.0%
Households with 3+ vehicles	8.0%

2017 data come from the 2013-2017 American Community Survey

Other literature cited:

1. 74 hours: The number of hours a resident making minimum wage has to work each week to afford a standard two-bedroom apartment-Shields, M. (2017). Clevelanders face housing insecurity: A higher minimum wage would help. Policy Matters Ohio. Available at

https://www.policymattersohio.org/blog/2017/06/30/clevelanders-face-housing-insecurity-a-higher-minimum-wage-would-help

2. 62%: of those using emergency food assistance had to choose between paying for food or paying for medicine-Greater Cleveland Food Bank. Hunger Facts for Northeast Ohio. Available at

https://www.greaterclevelandfoodbank.org/about/hunger-facts

3. 2x: Patients who rely on the bus are 2x as likely to miss an appointment than those with their own vehicle-Silver, D, Blustein, J, & Weitzman B.C. (2012). Transportation to clinic: Findings from a pilot clinic-based survey of low-income suburbanites. Journal of Immigrant and Minority Health, 14(2):350-355.

Health Literacy

Other literature cited:

- 1. Health literacy refers to the degree to which an individual has the capacity to obtain, communicate, process, and understand health information and services in order to make appropriate health decisions.-Plain Writing Act, ACA, 2010
- 2. Up to 80% of medical information provided by healthcare providers is forgotten immediately by patients; and half of the information that is remembered is incorrect. Approximately 20% of American adults read at or below the fifth grade level. However, most health information materials are written at the tenth grade level or above.- U.S. Department of Education, 2003

- 3. 66% of Cleveland adults are functionally illiterate with some neighborhoods having rates as high as 97%-Seeds of Literacy (2001). Estimates for the Percent at Level 1 or Level 2 Literacy. Data from this handout were originally published in 2000 by Case Western Reserve University Center on Urban Poverty and Community Development. Assessing Literacy Needs in Cuyahoga County Preliminary Analysis.
- 4. \$106-\$238 Billion is lost every year on health care costs due to a disconnect in the delivery of health information-Vernon, J. (2007). Low Health Literacy: Implications for National Health Policy

Health Insurance	2015	2017
	(n=384,102)	(n=382,641)
Insurance Type*		
Uninsured	14.2%	10.4%
Public	51.5%	55.4%
Private	43.4%	43.3%
Uninsured by Age Group		
<19	4.0%**	8.4%
19-25	24.8%	19.0%
26-34	23.0%**	16.9%
35-44	20.3%	14.7%
45-54	14.6%	15.1%
55-64	14.6%	10.4%
65+	0.8%	0.7%
Uninsured by Gender		
Male	17.4%	12.9%
Female	11.2%	8.1%
Uninsured by Race		
Black or African American	14.3%	10.3%
White or Caucasian	14.0%	10.6%
Asian	14.1%	10.7%
Multiracial	10.2%	7.7%
Other	21.4%	12.1%
Uninsured by Ethniciy		
Hispanic or Latino	16.3%	12.2%

Totals represent the proportion of civilian, non-institutionalized population

^{*}Numbers may add up to greater than 100% because individuals can be insured by more than 1 entity

^{**2015} age group is <18 years of age and 25-34 years of age 2015 data come from the 2011-2015 American Community Survey; 2017 data come from the 2013-2017 American Community Survey

Violence and Crime	2015	2017
Violent Crime		
Total Number of Violent Crimes	6032	6285
Homicides	111	121
Rape	547	551
Property Crime		
Total Number of Property Crimes	20265	20070
Burglaries	6185	6068
Motor Vehicle Theft	3414	3389

Data are from Cleveland Police, Cleveland, violent crime, property crime, homicide, rape, burglary, motor vehicle theft, 2016-2017. Analysis by Center on Urban Poverty and Community Development, Jack, Joseph and Morton Mandel School of Applied Social Sciences, Case Western Reserve University. Accessed through the Neighborhood Data Warehouse, NEOCANDO, system, accessed August 21, 2019. http://neocando.case.edu

Maternal, Infant and Child Health	2010	2017
Birth*		
Birth Rate	15.4	13.7
Adolescent Birth Rate (15-19 years)	35.4	33.0
% Low Birth Weight (<2500 grams)	13.3	14.0%
% Very Preterm (<32 weeks gestation)	3.7	3.5%
% Premature	14.4	14.3%
Mortality		
Neonatal Mortality Rate (<28 days)**	8.2	10.2
Infant Mortality Rate (<1 year)**	12.5	13.9
Child Mortality Rate (age 1-14 years)^	n/a	24.9
Vaccination		
Children who are up-to-date on vaccines	n/a	79.8%

^{*}Rates calculated are per 1,000 using 2010 and 2017 American Community Survey population estimates

^Rate is calculated per 100,000 children ages 1-14 using 2010 and 2017 American Community Survey population estimates

^^Are up-to-date on the 4+DTaP, 3+Polio, 1+MMR, 3+Hib, 3+HepB, 1+Varicella. Vaccination Series by Kindergarten^^. Data are from the Ohio Department of Health. School Immunization Status Assessment and represent the 2017-2018 school year

Prenatal Care*	2010	2017
% Receiving Prenatal Care in First Trimester		
All Women 60.6% 64.3%		
% Receiving High Quality Prenatal Care by Insurance Status		

^{**}Rate is calculated per 1,000 live births using data from Ohio Department of Health Office of Vital Statistics. 2010 and 2017 Birth Records

Uninsured		57.3%
Public Insurance	Not Captured	69.4%
Private Insurance		85.4%
% Receiving High Quality Prenatal Care by Race		
Non-Hispanic Black		68.4%
Non-Hispanic White	Not Captured	78.0%
Non-Hispanic Other	Not Captured	73.0%
Hispanic] [78.1%

*The Kotelchuck Index is used to quantify prenatal care quality 2010 data are from the Community Health Status Assessment for Cuyahoga County, Ohio (2013); 2017 data are from Ohio Department of Health Office of Vital Statistics. 2017 Birth Records

Sexually Transmitted Infections*	Chlamydia	Gonorrhea	Syphilis
Age Group			
<15	140.8	38.3	
15-19	10070.7	3573.7	68.3
20-24	8940.2	4122.7	197.5
25-29	4089.8	2655.6	200.5
30-34	1893.4	1256.1	161.1
35-39	936.1	784.7	123.5
40-44	491.3	535.5	88.4
45-49	312.9	406.8	116.2
50-54	173.4	224.6	47.3
55+	33.6	68.3	13.2
Race			
Black	2485.6	1434.8	97.5
White	526.5	189.9	41.2
Multiracial	1337.4	792.7	
Other	973.4	349.5	84.8
Hispanic	398.2	156.4	135.3
Non-Hispanic	1400.2	743.8	18.7
Overall	1937.5	987.7	73.9
% Change Since 2013	+1%	+30%	+270%

^{*}Rates are calculated per 100,000 population using 2017 American

Other literature cited:

1.Data for risky behaviours among youth are from -2017 Cuyahoga County Youth Risk Behavior Survey: Regional Prevalence. (2018). Prevention Research Center for Healthy Neighborhoods. Case Western Reserve University.

⁻⁻Data are suppressed when fewer than 10 cases are observed Data are from the: Ohio Disease Reporting System. Cases presented represent all incident cases per 100,000 population using 2017 American Community Survey Estimates. Please note that data may be subject to change as additional information is provided.

LIIV//AIDC	2017 Pre	evalence	2017 Incidence
HIV/AIDS	HIV	AIDS	HIV
Age*			
<20	19.4	-	-
20-24	377.4	81.1	88.2
25-29	660.0	240.6	89.4
30-34	659.2	318.6	54.9
35-44	690.7	545.5	22.0
45-54	911.1	1112.2	23.0
55-64	630.9	899.3	
65-74	319.2	433.8	
Race & Ethnicity*			
Non-Hispanic Black	508.1	463.0	35.1
Non-Hispanic White	266.0	253.9	13.6
Hispanic or Latino	511.0	594.4	<u>85</u>
Gender*			
Male	738.3	673.6	50.4
Female	180.8	178.4	6.4
Overall*	444.8	412.9	27.2
Priority Populations			
Men Who Have Sex Wi	78.7%	60.8%	65.2%
Intravenous Drug Use	7.7%	16.1%	5.7%

^{*}Rates are calculated per 100,000 population using 2017 American

Prevalence data were provided by the Ohio Department of Health HIV/AIDS Surveillance Program for 2017; Incidence data are from the: Ohio Disease Reporting System. Cases presented represent all incident cases per 100,000 population using 2017 American Community Survey Estimates. Please note that data may be subject to change as additional information is provided. Other literature cited:

1.Data for HIV/AIDS education among youth are from -2017 Cuyahoga County Youth Risk Behavior Survey: Regional Prevalence. (2018). Prevention Research Center for Healthy Neighborhoods. Case Western Reserve University.

⁻⁻Data are suppressed when fewer than 10 cases are observed

Chronic Disease	2015-2016
Diagnoses*	
Diabetes	15.8%
Asthma (Current)	11.7%
COPD	10.3%
Coronary Heart Disease	8.3%
Cancer (Excluding Skin)	5.6%
Stroke	5.4%
Chronic Kidney Disease	4.2%
Conditions that Lead to Disease	
High Blood Pressure	40.7%
Take Blood Pressure Medication	81.0%
Cholesterol Screening	69.4%
High Cholesterol	36.1%
Obesity	39.2%
Cancer Screenings*	
Colorectal Cancer Screening (ages 50-75)	54.5%
Mammogram (women ages 50-74)	70.0%
Health Behaviors	
Sleep <7 hours	42.5%
Physical Inactivity	36.2%
Smoke (Currently)	29.3%
Binge Drink	13.8%

^{*}Age-adjusted prevalence among adults 18+ (unless otherwise

specified) Data are from Centers for Disease Control and Prevention Division of Population Health. 500 Cities Project: Local Data for Better Health (2018).

Lung Cancer Rates*	2008-2017
Incidence Rate	906.5
Black or African American	886.9
White or Caucasian	1009.0
Asian	371.1
Hispanic or Latino	340.4
Male	1102.0
Female	743.3
% Uninsured	5.4%
Black or African American	4.8%
White or Caucasian	5.8%
Asian	11.8%
Hispanic or Latino	9.8%
% Late Stage Diagnoses	50.0%
Black or African American	51.5%
White or Caucasian	48.2%
Asian	47.4%
Hispanic or Latino	42.0%
Mortality Rate	662.1
Black or African American	676.3
White or Caucasian	701.4
Asian	429.6
Hispanic or Latino	302.2

*Rates are direct age-adjusted to the 2000 U.S. Standard population and use the 2010 Decennial Census data as the denominator and are calculated per 100,000 population Incidence, insurance, late-stage diagnosis data are from the Ohio Cancer Incidence Surveillance System, 2008-2017; Mortality data are from the Ohio Department of Health Office of Vital Statistics Death Records, 2008-2017

Colorectal Cancer Rates	2008-2017
Incidence Rate	510.1
Black or African American	485.1
White or Caucasian	525.3
Asian	269.1
Hispanic or Latino	283.6
% Uninsured	6.2%
Black or African American	6.8%
White or Caucasian	5.5%
Asian	16.7%
Hispanic or Latino	7.8%
% Late Stage Diagnoses	19.9%
Black or African American	22.2%
White or Caucasian	18.9%
Asian	27.8%
Hispanic or Latino	18.5%
Mortality Rate	200.7
Black or African American	214.6
White or Caucasian	199.9
Asian	
Hispanic or Latino	149.6

*Rates are direct age-adjusted to the 2000 U.S. Standard population and use the 2010 Decennial Census data as the denominator and are calculated per 100,000 population Incidence, insurance, late-stage diagnosis data are from the Ohio Cancer Incidence Surveillance System, 2008-2017; Mortality data are from the Ohio Department of Health Office of Vital Statistics Death Records, 2008-2017

2008-2017
1410.5
1448.0
1444.0
1053.7
898.8
3.4%
2.8%
4.0%
14.7%
7.3%
7.0%
6.8%
7.7%
2.3%
5.6%

Mortality Rate	251.2
Black or African American	283.9
White or Caucasian	233.4
Asian	
Hispanic or Latino	156.3

*Rates are direct age-adjusted to the 2000 U.S. Standard population and use the 2010 Decennial Census data as the denominator and are calculated per 100,000 population Incidence, insurance, late-stage diagnosis data are from the Ohio Cancer Incidence Surveillance System, 2008-2017; Mortality data are from the Ohio Department of Health Office of Vital Statistics Death Records, 2008-2017

Prostate Cancer Rates	2008-2017
Incidence Rate	1427.5
Black or African American	1810.6
White or Caucasian	1053.9
Asian	507.0
Hispanic or Latino	1016.8
% Uninsured	5.3%
Black or African American	5.5%
White or Caucasian	4.7%
Asian	15.4%
Hispanic or Latino	6.6%
% Late Stage Diagnoses	9.7%
Black or African American	9.2%
White or Caucasian	10.9%
Asian	15.4%
Hispanic or Latino	12.4%
Mortality Rate	339
Black or African American	442.0
White or Caucasian	248.3
Asian	==
Hispanic or Latino	242.7

*Rates are direct age-adjusted to the 2000 U.S. Standard population and use the 2010 Decennial Census data as the denominator and are calculated per 100,000 population Incidence, insurance, late-stage diagnosis data are from the Ohio Cancer Incidence Surveillance System, 2008-2017; Mortality data are from the Ohio Department of Health Office of Vital Statistics Death Records, 2008-2017

OH 2008-2017
Cleveland ,
Age Group,
auses of Death by /
ng Causes o
10 Leadi

The control of the					Age (Age Groups				
Short Gestation Homicide Homicide Accidental Ac	Rank	<1	1-14	15-24	25-34	35-44	45-54	55-64	65 +	Total
Malignation	-	Short Gestation	Homicide	Homicide	Accidental	Accidental	Diseases of the Heart	Malignant Neoplasms	Diseases of the Heart	Diseases of the Heart
Congenital Accidental Accidental Homicide Hom	•	209	37	266	313	362	996	2269	7311	10616
5105 Malignant Neoplasms Suicide Spiration Poliseases Actidental Investment Actidental Neoplasms Suicide Neoplasms Actidental Neoplasms Suicide Neoplasms Actidental Neoplasms Chronic Liver Spiratory Diseases	2	Congenital Malformations	Accidental	Accidental	Homicide	Diseases of the Heart	Malignant Neoplasms	Diseases of the Heart	Malignant Neoplasms	Malignant Neoplasms
SIDS Malignant volume Suicide seases Suicide seases Suicide seases of the complications Suicide seases of the sepiratory Diseases and seases of the sepiratory Diseases and seases of the sepiratory Diseases and sepiratory D		66	34	104	264	268	953	1955	5790	9293
Maternal Pregnancy 617 522 1538 Maternal Pregnancy Complications Malignant Accidental Diseases of the leart and polisors 190 617 522 1538 Complications Malignant Accidental Neoplasms Hourist and polisors Complication of polisors Chronic Liver Chronic Liver Chronic Liver Chronic Liver Chronic Liver Chronic Liver Diseases of the polisors Malignant per polisors Suide Cerebrovascular polisors Chronic Liver Chronic Liver Chronic Liver Diseases of tribosis polisors Diseases of tribosis polisors Bactis polisors Diseases of tribosis polisors HIV Diabetes Mellitus per polisors Chronic Liver Chronic Liver Chronic Liver Cerebrovascular polisors Chronic Liver Cerebrovascular polisors Septicemia Accidental polisors 21 Suppressed Suppressed Chronic Liver Diseases Cirrhosis polisors Diseases Cirrhosis polisors Cerebrovascular polisors Cerebrovascular polisors Septicemia Nephritis 12 Suppressed Cerebrovascular polisors Cerebrovascular polisors Cerebrovascular pol	c	SOIS	Malignant Neoplasms	Suicide	Suicide	Malignant Neoplasms	Accidental	Accidental	Chronic Lower Respiratory Diseases	Accidental
Maternal Pregnancy Congenital Molignant Complications (Congenital Molignant Logistics) Malignant Heart Heart Logist (Complications Molignant) (Complications 133 Molignant) Diseases of the Heart Logistics (Complications 133 Molignant) Accidental Diseases of the Heart Logistics (Complications 133 Molignant) Malignant Logistics (Complications 133 Molignant) Chronic Liver Complications (Complications 133 Molignant) Chronic Liver Complications (Complications 133 Molignant) Chronic Liver (Complications 134 Molignant) Complications 134 Molignant (Complications 134 Molig		84	13	55	95	190	617	522	1533	2507
Newborn Complications Suicide Complications Complications Suicide Logists See State Complications Suicide Complications Suicide Complications Suicide Respiratory Disease State See Sta	-	Maternal Pregnancy	Congenital	Malignant Neoplasms	Diseases of the	Homicide		Chronic Lower Respiratory Diseases	Cerebrovascular Diseases	Chronic Lower Bespiratory Diseases
Newborn 55 Newborn 55 Diseases of the Peart Peart Complications 55 Malignant Respiratory Diseases 2 (irrhosis 55) Suicide Diseases 2 (irrhosis 55) Chronic Liver 146 Disease 8 (irrhosis 533	•	62	13	30	80	129		362	1384	2090
Accidental Accidental Place	2	Newborn Complications		Diseases of the Heart	Malignant Neoplasms	Suicide	Cerebrovascular Diseases	Chronic Liver Disease & Cirrhosis	Diabetes Mellitus	Cerebrovascular Diseases
Accidental Bacterial Sepsis Homicide DiseasesAccidental 36HIVDiabetes Mellitus 62Chronic Liver 138Chronic Liver 138Diabetes Mellitus 138Chronic Liver 138Diabetes Mellitus 138Chronic Liver 138Diabetes Mellitus 138Chronic Liver 138Diabetes Mellitus 138Chronic Liver 138Diabetes Mellitus 138Chronic Liver 138Diabetes Mellitus 138Acridental 144Altheimer's Diseases 144Accidental 144Homicide 101 102Homicide 102Nephritis 121Nephritis 121Accidental 121Girculatory System Diseases 10Girculatory System 10Niel Hepatitis 10Niel Hepatitis 10Hypertension 10		55		22	46	80	146	333	863	1848
Respiratory Distress Suppressed 19 62 142 284 820 Respiratory Distress 21 Chronic Liver Disaese & Cirrhosis 138 Cerebrovascular Diseases Septicemia Septicemia Septicemia Septicemia Nephritis Nephritis Nephritis Nephritis Nephritis Nephritis Nephritis Accidental Nephritis Nephritis Accidental Nephritis Accidental Nephritis Nephritis Accidental Nephritis Accidental Nephritis Accidental Nephritis Accidental Accidental Niral Hepatitis Hypertension Accidental Hypertension Accidental	9	Accidental			ИΙΛ	Diabetes Mellitus	Chronic Lower Respiratory Diseases	Diabetes Mellitus	Alzheimer's Disease	Diabetes Mellitus
Respiratory DistressSuppressedDiabetes Mellitus 16Chronic Liver 16Chronic Liver 50Chronic Liver 		36			19	62	142	284	820	1370
Bacterial Sepsis Suppressed Cerebrovascular Diseases Cerebrovascular Diseases Cerebrovascular Diseases Cerebrovascular Diseases Homidde Septicemia Nephritis Homicide Homicide 97 144 605 L12 HIV Suicide Nephritis Accidental Circulatory System Diseases Suppress Chronic Lower Respiratory Diseases Septicemia Viral Hepatitis Hypertension 10 27 68 92 464	7	Respiratory Distress			Diabetes Mellitus	Chronic Liver Disease & Cirrhosis	Diabetes Mellitus	Cerebrovascular Diseases	Septicemia	Homicide
Bacterial Sepsis Suppressed Cerebrovascular Diseases Diseases 12 36 97 144 605 Homicide Homicide Suppressed Circulatory System Diseases 10 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1		21			16	50	138	260	627	894
Homicide	œ	Bacterial Sepsis	passauddns	Suppressed	Cerebrovascular Diseases	Cerebrovascular Diseases	Homicide	Septicemia	Nephritis	Septicemia
Homidde HIV Suicide Nephritis Accidental 12 33 91 121 519 Circulatory System Chronic Lower Septicemia Viral Hepatitis Hypertension 10 10 68 92 464	,	12			11	36	97	144	605	872
Suppress Suppress Chronic Lower Septicemia Viral Hepatitis Hypertension Diseases 10 68 92 464	σ	Homicide				AIIV	Suicide	Nephritis	Accidental	Alzheimer's Disease
Circulatory System Circulatory System Circulatory System Viral Hepatitis Hypertension Diseases 10 68 92 464)	12			3000000	33	91	121	519	831
10 68 92 464	10	Circulatory System Diseases			ssaiddns	Chronic Lower Respiratory Diseases	Septicemia	Viral Hepatitis	Hypertension	Nephritis
		10				27	68	92	464	807

