League of Women Voters of Oklahoma
Health Care in Oklahoma Study Materials

Preface

We went to sleep in one world and woke up in another. These materials were written before the COVID-19 pandemic. The pandemic has not affected the validity of the study; however, it is most probable that areas that were neglected earlier will be even more neglected in the future. Appendix D contains a brief list of articles regarding lessons learned from COVID-19.

Our health impacts everything we do. If we're not healthy, we can't work efficiently. Poor health affects our family life and there is a definite correlation between health and education. Children who are sick can't concentrate on learning and people who receive more education tend to be healthier than those who receive less.

The decision of the League of Women Voters of Oklahoma (LWVOK) to choose health care in Oklahoma as the subject of its 2019-2021 study came at a critical time. A petition was circulating that would mandate the expansion of Medicaid in our state. (This petition would receive significantly more than the minimum signatures necessary indicating the popularity of Medicaid expansion.) At the same time the Governor was proposing using a block grant to expand health care to more Oklahomans with work and copay requirements, a move opposed by those who wanted complete Medicaid expansion.

Our study comes at a time when we are learning more about the factors that influence a person's health than ever before. For example, the general public only recently became aware of the importance of **Adverse Childhood Experiences** (ACEs) on an individual's physical and mental health. And, the health care industry is working on ways to track factors that would lead to better health care outcomes.

These study materials begin with an overview of the positions that the Oklahoma League and the United States League have taken on the subject of health care. Following this introductory section, the study materials attempt to answer the following questions (the number in parenthesis following each question refers to the page in these study materials where the answer begins):

- How does health care in the U.S. compare with that provided by other countries? (4)
- How does Oklahoma's health care compare to that of other states? (5)
- Does everyone in Oklahoma have access to the same level of health care? (6)
- What do we know about reproductive health care in Oklahoma? (10)
  Maternal mortality (10)
  Infant mortality (19)
- What do we know about behavioral health care in Oklahoma? (23)
- What is the role of health insurance in a person's overall health? (27)
- What can be done to improve health care in Oklahoma? (32)

When we began our work on these study materials, we attempted to involve Oklahoma's health care community by asking them what they considered to be the most important health care issues facing their community. We did not get the response we expected, but we want to acknowledge the participation of the Oklahoma Nurses Association in providing input. Some of their comments are included in these materials.

Throughout this document, you will see terms in bold-faced type. These are terms that will be explained in the glossary.

The research and writing team that produced this report consisted of Judy Reynolds (Norman), Richard Greenhaw (Oklahoma City) and Karen Cárdenas (Tulsa). They were assisted by a number of League members from throughout the state who helped with the research and determined the focus of the study as well as providing technical assistance. They included (in alphabetical order) Mary Ellen Jones (Tulsa), Rex Largent (Stillwater), Mary Jane Lindaman (Tulsa), Teri McGrath (Lawton), Anna Rouw (Oklahoma City), and Cheri Spears (Norman). Kathleen Kastelic (Tulsa) served as editor and proofreader.

Introduction

At the May 2019 meeting of the LWVOK Board of Trustees, options for the 2019-2021 study were presented. Although earlier planning had indicated that the corrections system would be the topic chosen, the Trustees chose health care for the focus of its 2019-2021 study. This choice was based on a straw poll of local Leagues. The LWVOK has no position on health care. It has positions on mental health and teenage pregnancy, but the LWVOK relies on the national (LWVUS) policies on health care for advocacy.

Before introducing new material, the study will review the basic tenets of the LWVOK policies on mental health and teenage pregnancy as contained in the 2019 Program for Action. We will also review, in fairly broad outline, the LWVUS position on health care that appears in the 2018-2020 Impact on Issues. This provides the LWVOK membership the opportunity to review older positions and decide if the beliefs expressed hold true today. (Note: The 2021 issue of Program for Action will no longer have separate positions on mental health and teenage pregnancy. These positions will be included in the new position on health care.)

The LWVOK position on mental health is the League of Women Voters of Metropolitan Tulsa (LWVMT) position, adopted by concurrence in 2002. It lists ways in which mental health services in Oklahoma can be improved. They include:

- Assessing the basic mental health needs of children, adults, the elderly, the homeless and those who are incarcerated,
- Focusing on all aspects of identification and prevention of emotional problems, mental illness and substance abuse,
- Increasing mental health funding,
- Monitoring the effectiveness of current mental health care programs,
- Improving access to mental health services,
- Training personnel for delivery of mental health services based on the needs of a community,
- Stopping the diversion of mentally ill children and adults into the corrections system.

The 1989 LWVOK position on teenage pregnancy prevention stresses education as the primary means of reducing the incidence of teenage pregnancy. The five measures recommended are:

- Increasing opportunities to obtain good academic skills,
- Developing more training in work skills that teach good work habits and good attitudes toward work,
- Offering training in family life education and life planning with emphasis on the responsibilities of being sexually active, parenting and providing for the future,
- Providing access for all teens to health services, including contraceptives and counseling on the responsibilities of being sexually active, and
- Identifying resources for adolescents to help instill self-respect and an appreciation of the own capabilities and talents.

The LWVUS position on health care is both extensive and general. It states that basic health care should be available to all U.S. residents at an affordable cost. The LWVUS also believes that health care beyond the basic level should be available at a reasonable cost. It favors a national health care insurance financed through existing taxes rather than individual insurance premiums. It supports a health care system that is administered by a combination of private and public sectors or by a combination of national, state and local government agencies. The League opposes a strictly private market-based model of financing health care.

The League supports an increase in taxes to finance a basic level of health care for all U.S. residents and believes that health insurance costs can be controlled by:

- Reducing administrative costs,

- Regional planning for the allocation of personnel, facilities, and equipment,
- Establishing maximum levels of public reimbursement to providers,
- Reforming malpractice,
- Using managed care,
- Reviewing treatment,
- Requiring mandatory second opinions before surgery or extensive treatment, and
- Instituting consumer accountability through deductibles and copayments.

The League does not believe that the ability of a person to pay should determine the allocation of health care resources. It believes that a variety of factors, including the urgency of the medical condition and the expected outcome of the procedure should all be considered. In order to ensure the equitable distribution of health care resources, the League proposes:

- Allocating medical resources to underserved areas,
- Providing for the training of health care professionals in areas of greatest need,
- Standardizing basic levels of service for publicly funded health care programs,
- Requiring insurance plans to use **community rating** instead of **experience rating**, and
- Establishing insurance pools for small businesses and organizations.

In the area of behavioral health, the LWVUS supports:

- Using "behavioral health" as the nationally accepted term that includes both mental illness and substance use disorder,
- Providing access for all people to affordable behavioral health care services and medications,
- Developing behavioral health care that is integrated with, and achieves parity with, physical health care,
- Ensuring early and affordable behavioral health care diagnosis and treatment for children and youth,
- Providing family-focused and community-based health care for children and adolescents,
- Ensuring that people with behavioral health challenges, including those who are chronically homeless, have access to safe and stable housing,
- Developing effective re-entry and follow-up planning for persons released from the behavioral health hospitalization and the criminal justice system,
- Establishing special courts, including mental health and drug courts, in all judicial districts, to provide needed treatment and to avoid inappropriate entry into the criminal justice system,
- Providing health education at all levels that integrates all aspects of social, emotional, and physical health and wellness, and
- Increasing efforts to eliminate the stigmatization of behavioral health problems and care and to normalize such problems.

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League of Women Voters of Oklahoma, **Program for Action**, November 2019, pp. 51-54. https://drive.google.com/file/d/1BHrDx20ONuujEPcJf-6YhyXk02b9nXXJ/view

League of Women Voters of the United States, **Impact on Issues: 2018-2020, A Guide to Public Policy Positions**, pp. 78-81. https://www.lwv.org/impact-issues

How does health care in the U.S. compare with that provided by other countries?

As people who live in the United States, we are accustomed to thinking of ourselves as a world leader. In fact, we frequently think of ourselves as being ahead of all other countries in all things. However, when compared to other Organization for Economic Cooperation and Development (**OECD)** countries, the United States does not fare well. The areas in which we lead other comparable countries are not to be envied and we lag behind many countries in key health care measures.

The United States leads OECD countries in the amount spent on health care each year. Americans spend close to $9,800 per person annually on health care. This is almost a thousand dollars more than Switzerland, the second country in this category. It is more than double the $4,200 paid in the United Kingdom. Alarming Statistics

The U.S. also leads the OECD countries in the amount of money spent on prescription drugs. Again, at almost $1200 a year, the U.S. has a slight lead over Switzerland. The United States spends more than twice the almost $500 spent in the United Kingdom. Sawyer & McDermott

If these expenditures resulted in better outcomes for those living in the United States, they might be justifiable. But the United States ranks 27th in longevity behind such countries as Spain, Japan and Slovenia. Americans live 76.3 years, on average. This is two years less than Germans and almost five years less than the 81.2 years in the highest rated country in this category Iceland.

Other areas in which the U.S. performs poorly are **amenable mortality** Sawyer & McDermott, and adjusted life years. Amenable mortality refers to deaths from diseases that are amenable to treatment, in other words, preventable deaths. This is measured by something called the **Health Access and Quality (HAQ**) Sawyer & McDermott Index. The Netherlands leads all OECD countries in this area with a 96.1 rating. The average of all countries is 93.7. The U.S. rates five points lower than the average at 88.7.

The U.S. leads other countries in the number of years lost to premature death or the **Disability Adjusted Life Years (DALY)**. On an average, Americans lose 24 years of expected life compared to the average for all countries of 18. Japan is one of the countries with the lowest average of 16. Sawyer & McDermott

Closely related to the HAQ and the DALY is the percentage of people in each country who could see a doctor within 24 hours when it was needed. The Netherlands led in this category with 77%. The U.S. had only 53%. Sawyer & McDermott

It is important to note that, not only does the United States compare poorly with similar countries, it is not improving as rapidly as they are. Therefore, the gap between the U.S. and other developed democracies is widening. There are areas in which the U.S. does well, of course. The 30-day mortality rates for heart attacks and ischemic strokes are lower in the U.S than in other countries. Mortality rates for certain kinds of cancer are also lower. Please refer to the sources cited for more examples.

References

The Diabetes Council. (2018) *50 Alarming Statistic on the Healthcare system of the United States.* https://tinyurl.com/tgp2q9j

Sawyer, B. & D. McDermott. Kaiser Family Foundation. Health System Tracker. (2019, March) *How does the quality of the U.S. healthcare system compare to other countries?* https://tinyurl.com/ybaq8vx5

How does Oklahoma's health care compare to that of other states?

The current governor of Oklahoma has frequently used the phrase "top ten state" to explain his vision for Oklahoma. He was somewhat vague about the details and his detractors note that, particularly in the areas of education and health, he needed to be more specific.

An article in the Journal Record Sweeney, 2018 on December 18, should have alerted the Governor to the challenges he faced in bringing the state up to even a creditable rating in the area of health. According to this article, the state's ranking compared to other states had fallen to 47th from 43rd the previous year. Oklahoma ranked first only in the percentage of decline reported.

The Center for Disease Control and Prevention (CDC) provided more detail (2018). Oklahoma ranked third in the number of births to teenagers. It also ranked high in several causes of death: 1st in heart disease, 2nd in chronic lower respiratory disease, 4th in both deaths from cancer and diabetes and 5th in deaths from chronic liver disease (cirrhosis).

The CDC ranks Hawaii, Massachusetts and Connecticut as the top three states for health care. The U.S. News indicates that there is a correlation between state rankings and three other factors: smoking, obesity and health insurance (2019). Later in this study document there will be a section devoted specifically to the importance of health insurance.

References

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Data Explorer (2019). *Drivers of good health.* U.S. News and World Report. https://tinyurl.com/v62uufc

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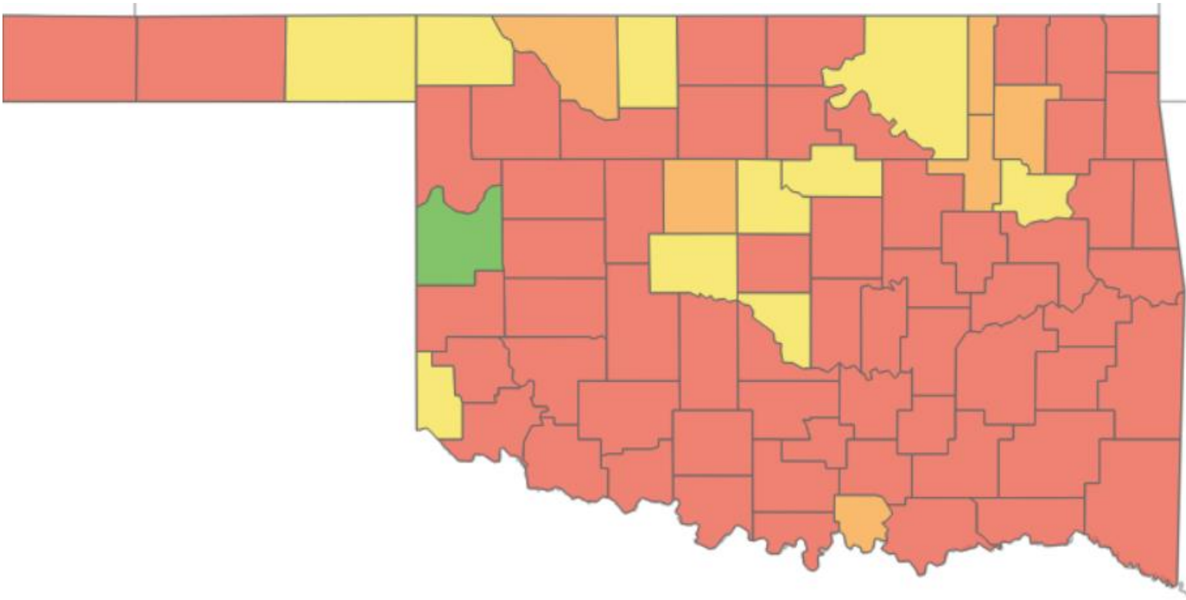
Does everyone in Oklahoma have access to the same level of health care?

Just as the United States compares poorly to other developed countries in terms of health care, and Oklahoma compares poorly to other states, there are differences within the state of Oklahoma regarding access and quality of health care. The Oklahoma State Board of Health has developed a grading system using proximity to national averages as a guide. Then, they assigned a color to each letter grade: A is blue; B is green; C is yellow; D is orange and F is red. As you can see from the map below (Figure 1), only one county in Oklahoma (Roger Mills) had achieved a "B" rating for total mortality in 2017. There were approximately 12 counties with a "C" rating and a few with "D" ratings, but the most common grade was "F."

Figure 1.



The ratings are based on the national ratings for approximately 50 factors. These include everything from babies' low birth weight to whether seniors have had immunizations from the flu and/or pneumonia. (A complete list can be found in Appendix A.) So, the closer a county's rating is to the national rating on one particular measure the higher their score. It is important to note that the Oklahoma State Board of Health offers the following disclaimer about its data:

> Because Oklahoma is so diverse, it is important that we look at outcomes by county. Even so, it is very difficult to obtain enough data on every risk behavior at the county level. In order to compensate for this, we have applied advanced statistical modeling techniques to create county-level estimates for those indicators that were collected using the Behavioral Risk Factor Surveillance system. As a result, you may see some small differences in the estimates and the grades that were calculated using the different methods. For example, the Tulsa regional

estimates are based on direct survey data and the Tulsa County estimates were based on modeled estimates. Learn

If you look more closely at Roger Mills County you will discover that they rank very highly on their cancer mortality rate (1st), 2nd for heart disease mortality rate, 4th for percent of adult smokers, 7th for percent of low birth weight babies, and 11th for percent of uninsured population. All of these ratings are on a scale where first is the best and seventy-seventh is the worst. They represent the years 2011 through 2015.

There is another group of maps that may help us understand the ratings that Roger Mills and other counties receive. These are the maps of socioeconomic conditions. The first three of these maps show the percentage of individuals, children, and families living in poverty in Oklahoma. Other maps in this series show the percentage of uninsured, prevalence of higher education, percentage of adults in the county who smoke or who are obese. (*Note: Local Leagues are encouraged to use these maps as a resource in discussing how their area of the state compares to others. See also Appendix B.*)

Are there any regional patterns related to the social determinants of health care? According to Index Mundi, there are 24 counties in Oklahoma where 20% or more of the population is living in poverty. Seven of these counties have poverty rates in excess of 25%. That means that one in every four people is poor.

The seven poorest counties with the percentage of poor are Harmon (28.8%), Okfuskee (28.4%), Choctaw (27.1%), Pushmataha (26.5%), Adair (26.4%), McCurtain (26.1%) and Payne (25.7%). With the exception of Harmon County which is located in the far southwest corner of the state, all the poorest counties are in the eastern half of the state. Three are in the far southeast corner of the state.

If you look at the profile of each of these counties, with the exception of Payne County, you will see very comparable ratings. All receive primarily "F" grades with four exceptions: binge drinking, heavy drinkers, seniors' influenza vaccination, and seniors' pneumococcal vaccination. All of the poorest counties received "A" or "B" ratings in these areas.

Except for the degree of poverty in each county, there do not seem to be any common characteristics. This is not the case when one looks at the differences between areas of some of Oklahoma's largest cities. An example would be Tulsa.

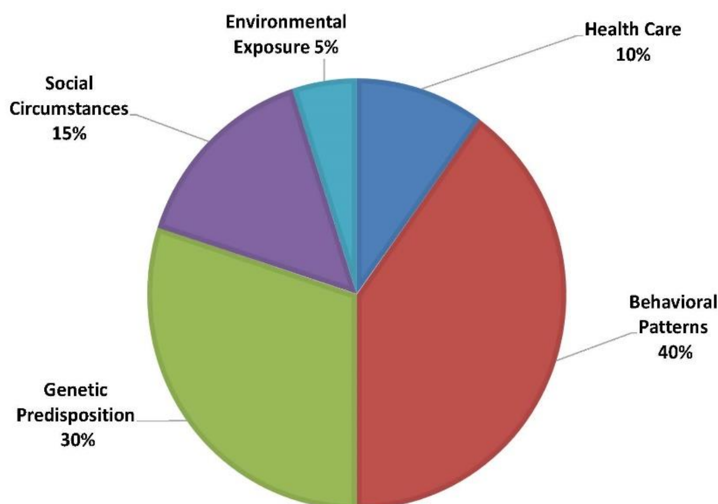
In 2015, the Tulsa World Averill published an update to an article that had appeared two years earlier. The previous article had compared the level of income, the percent of residents living in poverty, and the life expectancy in two zip code areas of the city. In 2011-2013, in the zip code of 74137 (in the southern part of the city), and the median household income was $81,322. In the zip code of 74126 (in the northern part of the city), the median household income was $25,191. Only 8.8% of people in the 74137 lived below the poverty line while 38.2% of the people in the 74126 zip code lived in poverty. Perhaps most shocking was that, in the wealthier part of town life expectancy was 80.4 years, while in the poorer part of town it was only 69.7. The 2015 article reported that the gap in longevity between one of the wealthiest parts of the city and one of the poorest had narrowed thanks to a concerted effort by the city and the health care community.

Although north Tulsa is not racially uniform, it is generally regarded to be primarily African American. Racial disparity in health care and general living conditions was the subject of a documentary that had its world premiere in November 2018. *Cooked: Survival by Zip Code* https://www.cookedthefilm.com/ explored the 1995 Chicago heat wave that killed over 700 residents of that city.

The inclusion of the term "zip code" is relevant because most of the people who died during this heat wave lived in areas that were poor and predominantly black. One of the ironies revealed in the film is that, when the leadership of Chicago used the tragedy as a learning experience, it focused more on making sure there were enough refrigerated trucks to handle the dead than on improving living conditions in the affected neighborhoods.

Studies of health care have only rarely focused on the socio-economic conditions that influence a person's health. In August of 2019, Dr. Gary Raskob of the University of Oklahoma Health Sciences Center gave a presentation to the governor's health care working group. The title of his presentation was "Social Determinants of Health and the Relationship to Health Care." See Figure 2.

Figure 2.



Source: Schroeder, SA (2007). We Can Do Better – Improving the Health of the American People. NEJM. 357:1221-8

The second slide contained this quote: "By some estimates, more than 95% of the trillion dollars spent on health care in the United States each year funds direct medical services, even though 60% of preventable deaths are rooted in modifiable behaviors and exposures that occur in the community."

Much of Dr. Raskob's presentation was devoted to demonstrating the relationship between two specific factors and health. The first factor is income. Using Oklahoma City as an example, Raskob showed that low income areas were also the least healthy. He also showed a correlation between income and smoking. More people in the lowest income group smoked than did those in the highest income group. And, there is a correlation between education and income. The more education a person has, the higher their median weekly earnings.

As a group of researchers and writers concerned with organizing study materials on health care in Oklahoma, this information changed our study significantly. It did not lessen our emphasis on the need for hospitals and medical professionals, but it made us aware of something that we should have known all along: a person's lifestyle and heredity have a tremendous impact on her health.

One of the concepts connected to this information is the concept of **weathering**. This concept has nothing to do with climate change. It is a term that Dr. Arline Geronimus, a professor of Health Behavior & Health Education at the University of Michigan, coined to explain the premature death of young women in the African American community (Demby, 2018). It began with the discovery that young black women in their mid to late twenties were more apt to die in or shortly after childbirth than teenage mothers. This flew in the face of everything that researchers in the field had previously thought.

Geronimus chose the term weathering to evoke a sense of erosion. Instead of being eroded by weather, the health of young African American women had been eroded by racism. The reason that black women in their twenties were more likely to die during or shortly after childbirth than teenage mothers was that they had been exposed to the erosion of racism for a longer period of time.

The scientific explanation of weathering involves a process known as DNA methylation. This occurs when a group of molecules attach methyl to a region of certain cells and distorts their function. If racial discrimination is a cause of weathering, there is more than adequate reason for concern. A recent Rutgers University study estimates that African American teenagers suffer racial discrimination on an average of five times a day (Reneau, 2020).

The sections of these study materials devoted to comparisons (between the U.S. and other countries, between Oklahoma and other states, and between various group within our state) have demonstrated that Oklahoma ranks behind most states in a country that ranks behind many developed countries. It also has shown that not all Oklahomans have the same access to quality health care as others. The sections that follow will focus on specific areas of health care: reproductive health (with a specific focus on infant mortality and maternal mortality) and behavioral or mental health. These materials will also address the issue of health insurance and its role in health care.

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What do we know about reproductive health care?

The League of Women Voters U.S. (LWVUS) believes that the basic level of care that it advocates for all U.S. residents includes prenatal and reproductive health. In 1994, the LWVUS lobbied congress for a reproductive health component of comprehensive reform and emphasized that this component called for abortion to be included in any health benefits package. In 2013, the LWVUS opposed religious exemptions for contraceptive services, which they argued all insurance plans should offer as basic care. The LWVUS also joined other concerned groups opposing "religious exemptions" in the 2014 *Burwell v Hobby Lobby Stores* case in the Supreme Court. The LWVUS continues to support the Affordable Care Act (ACA), to oppose measures to repeal or destabilize the ACA, and to support the expansion of the Medicaid program. The LWVUS does not have a position on Family and Medical Leave (LWVUS, 2019, pp. 78-81).

Our LWVOK study of reproductive health will focus on maternal mortality and infant mortality.

Maternal Mortality

Maternal mortality is the first part of our study on reproductive health in Oklahoma. While pregnancy is a common experience that touches all of us in some way every day, pregnancy is life-changing and can also be life-threatening for many women and particularly so for women of color. The Center for Disease Control (CDC) and the World Health Organization (WHO) define maternal mortality as death while pregnant or within 42 days of termination of pregnancy that is not from accidental or incidental causes. A May 2017 National Public Radio (NPR) report on maternal mortality asserted:

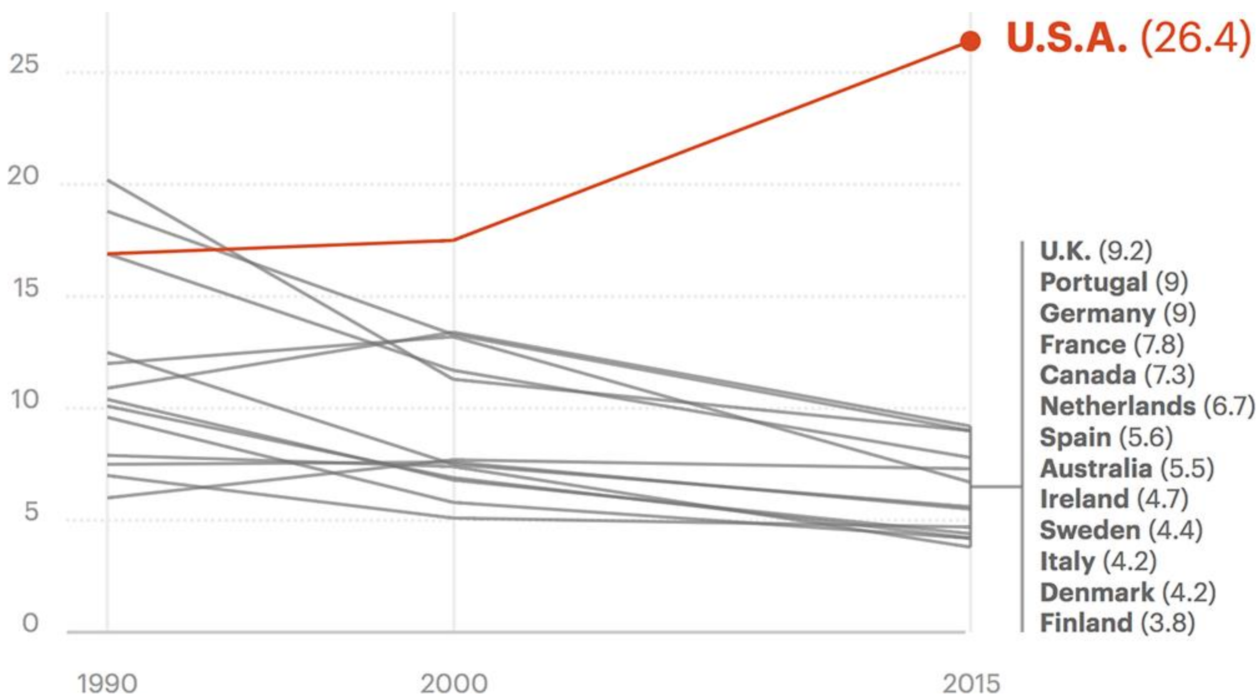
> The ability to protect the health of mothers and babies in childbirth is a basic measure of a society's development. Yet every year in the U.S., 700 to 900 women die from pregnancy or childbirth-related causes, and some 65,000 nearly die — by many measures, the worst record in the developed world. (Martin, N., Montagne, R., 2017,)

How does maternal mortality in the U.S. compare to that in other countries?

In 2019, the WHO stated that maternal mortality is unacceptably high. In their report, these key facts about maternal mortality in the world were noted: Every day in 2017, approximately 810 women died from **preventable** causes related to pregnancy and childbirth, and between 2000 and 2017, the maternal mortality ratio (**MMR**, number of maternal deaths per 100,000 live births) dropped by about 38% worldwide (World Health Organization, 2020). The same is not true for this period in the United States. Not only is the maternal mortality rate in the U.S. significantly higher than in other developed countries (See Figure 3), the U.S. rate is rising while the rate in other developed countries is declining. Two other countries that also have a rising MMR are Afghanistan and Sudan. The rise in maternal mortality is a troubling trend in the U.S. especially since the MMR has been rising as infant mortality has been declining nationwide.

Figure 3: Maternal Mortality Is Rising in the U.S. As It Declines Elsewhere

Deaths per 100,000 live births



Notes

"Global, regional, and national levels of maternal mortality, 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015," *The Lancet*. Only data for 1990, 2000 and 2015 was made available in the journal.

Source: The Lancet

Credit: Rob Weychert/ProPublica

(Martin & Montagne., 2017)

Are there disparities in the U.S. rates of maternal mortality?

All U.S. women can be affected, but African American women in America are 4 times as likely to die of pregnancy-related complications as white women, and rural and low-income women are especially prone to these problems. Yet, 60% of all pregnancy-related deaths in the U.S. are preventable (Petersen, Davis, Goodman & et al, 2019).

What are the causes of maternal mortality?

One important problem affecting the MMR in the U.S. has been the lack of a reliable and consistent method of data collection. "Indeed, for the last decade, the U.S. hasn't had an official annual count of pregnancy-related fatalities, or an official maternal mortality rate — a damning reflection of health officials' lack of confidence in the available numbers" (Fields & Sexton, 2017). Consequently, the MMR may actually be greater than has been reported to date. On January 30, 2020, the National Center for Health Statistics (NCHS) released the 2018 Mortality File, which includes the first official national MMR since 2007. (CDC 2020). The lag time between the 2007 and 2018 data was the result of a change in the way maternal deaths were recorded on death certificates in the 50 states. Now, all states are using a standardized form with a checkbox that indicates a woman was pregnant within a defined period before and after her death.

A May 2017 NPR story noted these causes of maternal mortality: older mothers, unplanned pregnancies, more prevalence of C-section, fragmented health care systems, and confusion about symptoms and treatments (Martin & Montagne, 2017). Additionally, the March of Dimes reports that 240,000 women in Oklahoma live in a maternity care desert (March of Dimes, 2018). That fact alone may account for lack of consistent maternal care for many women. The Program Director of the **Office of Perinatal Quality Improvement Collaborative (OPQIC)** at the OU Health Sciences Center, Barbara O'Brien, reported that there are 48 birthing hospitals in Oklahoma, 58% of which are in rural areas. Twenty-seven of the seventy-seven counties in Oklahoma have birthing hospitals (personal communication, February 16, 2020). Additional possible causes of the MMR in the U.S. include: a focus on infant health, and treatment guidelines that vary from clinic to clinic and from doctor to doctor. Mental health issues also affect maternal health and mortality (Building 2018). A 2019 Kaiser Family Foundation Brief stated that:

> One of the most common complications for pregnant and postpartum women is depression. The American College of Obstetricians and Gynecologists (ACOG) estimates that 14-23% of pregnant women and as much as a quarter of postpartum women experience depression. Several studies have found higher rates among women of color, low-income women, as well as variation between states. (Ranji, Gomez & Salganicoff, 2019)

A report in Obstetrics and Gynecology April 2019 concluded that rather than medical or geographic causes, their data:

> . . . strongly suggest that racial disparities in health care availability, access, or utilization by underserved populations are important issues faced by states in seeking to decrease maternal mortality. Ethnic genetic differences may also be involved. In addition, the potential role of unconscious (implicit) bias in this significant racial disparity must be considered. (Moaddab & et al., 2016)

Are the trends for mothers in Oklahoma similar to those in the U.S.?

Data from 2018, which were gathered using the most recent coding methods, revealed the MMR for Oklahoma was 30.1 per 100,000 births while the MMR for the U.S. was 17.4/100,000. In Oklahoma between 2005 and 2014, the MMR for Non-Hispanic Black women was much higher than any other racial/ethnic group. (See Figure 4.)

Figure 4. Maternal Deaths/100,000 Live Births 2005-2014 in Oklahoma

Total Overall	Hispanic	Non-Hispanic White	Non-Hispanic Black	Native American	Asian
27.5	12.9	29.5	49	21	0

Source: (Moaddab & et al., 2016)

In 2012, Oklahoma reported that 14.9% of new mothers reported symptoms of depression (Ko & et al., 2017). According to an Oklahoma State Department of Health (OSDH) publication from 2011, mental health concerns affect Oklahoma mothers in these ways:

- One in four Oklahoma mothers suffer from key symptoms of postpartum depression between two and six months postpartum.
- Approximately 40 percent of all Oklahoma mothers reported that their healthcare provider did not discuss postpartum depression in their prenatal care.
- Women ages 20 – 24 were twice as likely to indicate symptoms of depression when compared to women ages 35 or older; adolescents (under 20) were 2.5 times as likely.
- Stressors found to increase the risk of depression symptoms were having an unintended pregnancy, arguing with a partner more than usual during pregnancy and having bills one could not pay (OSDH, 2011).

What can be done to reduce maternal mortality in our state and country?

Because half of all pregnancies in the U.S. are unplanned, the CDC stresses the importance of promoting overall health for women in order to improve birth outcomes for both the mothers and their infants. This would entail providing regular health care to women before their pregnancies begin, during their pregnancies, between their pregnancies, and after their deliveries. The authors of a report in the April 2018 issue of Obstetrics and Gynecology concluded:

> Our results provide evidence for the strong contribution of racial disparity to maternal mortality ratio in the United States and to interstate differences in maternal mortality ratio and suggest that addressing issues related to health care disparity and access for this population will play an important role in national attempts to reverse this mortality trend. (Moaddab & et al. 2018)

In 2017, 14.2% of Oklahomans were without medical insurance. Of all other states, only Texas has a higher percentage of uninsured residents. (U.S. Census Bureau, p. 19,) The uninsured rate for women of childbearing age (18-44) was 21.4% in Oklahoma in 2017. This is a decrease of 5.8% since 2013, but it is still a disturbing percentage.

How does Medicaid provide coverage to pregnant and postpartum women?

Nearly half of all births in the U.S. are funded by Medicaid. Medicaid eligibility limits are defined by a percentage of the federal poverty level (FPL), which was $21,300 for a family of three in 2019. Federal law requires that pregnant women with incomes up to 138% of the FPL receive benefits from Medicaid.

In Oklahoma, pregnant women whose incomes are up to 210% FPL may receive Medicaid funding (Kaiser, 2020). Sooner Care in Oklahoma does a good job getting pregnant women enrolled in Medicaid. Oklahoma also has a program, Soon-to-be Sooners, that offers only maternity and pregnancy care to non-resident pregnant women until their delivery. Medicaid requires that coverage for pregnant women be extended for 60 days postpartum. After that time, in states like Oklahoma that did not opt for Medicaid expansion, women must refile as parents rather than as pregnant women in order to receive benefits beyond the 60 days postpartum. The income eligibility level for parents is 42% FPL, which is much lower than for pregnant women, so many women in non-expansion states lose Medicaid coverage after 60 days postpartum. This is especially problematic since symptoms of postpartum depression can appear after 60 days. Importantly, almost 25% of pregnancy-related deaths occur 42 days after giving birth. (See Figure 5.)

Figure 5. Distribution of pregnancy-related deaths by timing of death in relation to pregnancy, data from 14 maternal mortality review committees, 2008-2017. (Specific timing information is missing for 73 (16.1%) pregnancy-related deaths.)

	#	%
During pregnancy	91	23.9
Day of delivery	59	15.5
1-6 days postpartum	70	18.4
7-42 days postpartum	71	18.6
43-365 days postpartum	90	23.6

(Davis et al., 2019)

These are reasons for extending coverage for postpartum care beyond the 60 days. Some states have extended coverage for pregnant women to 12 months after a birth or miscarriage. In contrast, infants are required to be covered by Medicaid for the first year of life.

What measures will improve the MMR in Oklahoma?

Nationally, March of Dimes recommends the following solutions and policy actions for all states to create positive change:

- Expanding programs that work, like group prenatal care.
- Ensuring that women have access to public health insurance programs.

- Expanding Medicaid to cover individuals with incomes up to 138 percent of the federal poverty level to improve maternal and infant health.
- Making sure all women have Medicaid coverage for at least one year postpartum.
- Establishing and funding Maternal Mortality Review Committees (MMRC) nationwide.
- Increasing support for state-based Perinatal Quality Collaboratives, which have proven successful at improving maternal and infant outcomes by enlisting both providers and public health in improving the quality of care for moms and babies.
- Addressing chronic inequities and unequal access to quality health care.
- Reducing **toxic stress**, which contributes to maternal and infant health complications.
- Addressing implicit bias and structural racism in health care and community settings. (Oklahoma, 2019)

An Oklahoma Maternal Mortality Review Committee (**MMRC**) has been established and reviews maternal deaths in the state. California has had success translating the information from their MMRC into actions that have reduced the MMR in that state. These actions include focus on:

Readiness—of facilities, protocols for practitioners, and women's preparation
Recognition of risk factors
Response—coordination of care, timing of treatment, and follow-up care.
(Morton et al., 2019)

As of 2019, Oklahoma is enrolled in the Alliance for Innovation on Maternal Health (**AIM**) whose goal is to implement measures that reduce maternal mortality. AIM asserts that: "The most common complications associated with childbirth involves denial and delayed response from the health care team" (Council, 2020). AIM has developed bundles, or care practices, that can be implemented to improve health care for mothers. The Oklahoma Perinatal Quality Improvement Collaborative (**OPQIC**), which has been in existence in Oklahoma since 2014, is supported by Title V federal funding, and a community grant from the March of Dimes Oklahoma Chapter has also provided some funding. OPQIC collaborates with numerous national, state, and interagency groups, and has this mission:

> to provide leadership and engage interested stakeholders in a collaborative effort to improve the health outcomes for Oklahoma women and infants using evidence-based practice guidelines and quality improvement processes. OPQIC works with Oklahoma birthing hospitals and perinatal care providers of all types to improve perinatal care of Oklahoma mothers and newborns by collaborating with partners to identify and remove barriers to providing safe, quality perinatal care. The Office of Perinatal Quality Improvement at OUHSC administers the activities of OPQIC. (OPQIC, 2015)

Oklahoma mothers who have reached the end of coverage for postpartum care are eligible for family planning services through SoonerPlan. These extensive services are free to qualifying men and women who meet income requirements. All of these are important first steps towards improving the health of perinatal women and their infants in our state. The March of Dimes recommends these measures for all states to improve reproductive health:

- COMPREHENSIVE MEDICAID COVERAGE EXTENSION FOR ALL WOMEN TO AT LEAST ONE YEAR POSTPARTUM In too many states, Medicaid maternity coverage ends 60 days after giving birth, ending access to care at a time when risks of maternal complications and death persist.

- GROUP PRENATAL CARE ENHANCED REIMBURSEMENT Group prenatal care has shown significant benefits to maternal health, increases healthy behaviors and reduces adverse birth outcomes. Increased benefits were seen in Black women who participated in group prenatal care. Enhanced reimbursement models, including delivery and outcomes-based incentives, can encourage providers to offer it.
- MATERNAL MORTALITY REVIEW COMMITTEES Establishment, funding and reporting of state data to CDC through Maternal Mortality Review Committees is essential to understanding and addressing the causes of maternal death. (March of Dimes 2020)

The CDC in its report in Vital Signs concludes that "Contributing factors and prevention strategies can be categorized at the community, health facility, patient, provider, and system levels and include improving access to, and coordination and delivery of, quality care" (Petersen, Davis, Goodman & et al, 2019). The American College of Obstetricians and Gynecologists (ACOG) recommends that postpartum women have contact with obstetric providers within the first 3 weeks postpartum and recognizes postpartum care as an ongoing process tailored to each woman's individual needs. (Petersen, Davis, Goodman & et al, 2019). Providing home visitations to new mothers is another way to extend health care and prevent maternal deaths in the weeks and months after delivery.

Providing parental leave for the year following a birth is also an important factor for promoting maternal health.

> Oklahoma does not have a state law that specifically requires employers to offer pregnancy leave. However, employers covered by the federal Pregnancy Discrimination Act (PDA) must provide the same leave benefits to women affected by pregnancy that are provided to employees with temporary disabilities. According to guidelines issued by the state Human Rights Commission, employers that terminate employees with a temporary disability because of an inadequate leave policy may be in violation of the civil rights law if such a policy has a disproportionate impact on employees of one sex and is not justified by business necessity (OK Admin. Code Sec. 335:15-3-9).

Nor does Oklahoma have regulations that require private employers to offer maternal or family leave (Oklahoma Maternity). The U.S. ranks last in the world for paid parental leave. Only 4 states have paid maternity leave laws. Lack of parental leave laws contributes to income inequality, since low-wage earners are less likely to qualify for any of the existing parental leave benefits, and to the gender gap for women's pay, since child-bearing age coincides with the ages most careers are advancing. Generous parental leave laws would promote maternal and infant health by allowing the practice of breastfeeding for more than a few weeks, by promoting strong mother-child bonding, by reducing stress for mothers caused by sleep deprivation, for example, by encouraging continuous follow-up health care, and by reducing post-partum depression and/or allowing for treatment for postpartum depression (Gilpin, 2015). The Oklahoma Policy Institute has chosen paid family and medical leave for Oklahoma workers as one of its 2020 Legislative focus areas (Oklahoma Policy).

In conclusion, study after study demonstrate the benefits of expanding Medicaid in states and recommend that all states should expand Medicaid as the first step in reversing the rising maternal mortality rate as well as to begin to resolve the disparities in the MMR for poor women and women of color in our state and country. The ACOG states conclusively:

> The expansion of Medicaid is associated with improved access to health care, less delay in obtaining health care, better self-reported health, and reductions in mortality. The percentage of uninsured women aged 19–64 years could decrease from 20% to 8% if all states implement the Medicaid expansion, with enormous anticipated health benefits to women. (2013)

It is imperative that Oklahoma expand Medicaid for all of those reasons. The overall MMR in Oklahoma will remain high unless actions are taken to meet the specific needs of poor women and of women of color. If Oklahoma wants to be a top ten state for overall health and improve healthcare options for all women in the state, we need to act now. Oklahoma cannot be a healthy state unless we ensure the health of our mothers and babies.

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Infant Mortality

Maternal and infant health are intimately related; healthy mothers are more likely to have healthy babies. Both maternal and infant health are important indicators of the overall health of a society.

Infant mortality is defined by the Center for Disease Control (CDC) as the death of an infant before his or her first birthday, and the infant mortality rate (IMR) is the number of infant deaths for every 1,000 live births (CDC, 2019). The most recent CDC mortality report findings were that IMR in the U.S. decreased 2.3% from 2017 to 2018, and the causes of these deaths remained the same (Xu, et al. 2020). The Central Oklahoma Fetal and Infant Mortality Review (FIMR) Project stated that, "According to the Oklahoma State Department of Health, the three leading causes of infant deaths are: Congenital Anomalies, Prematurity and Sudden Unexpected Infant Death/**SIDS**" (2016). A 2016 report from the

OSDH listed the following factors that increase the risk for women to have a premature birth:

- High blood pressure
- Infections
- Diabetes
- Short time between pregnancies
- History of preterm birth
- Obesity (OSDH, 2016)

What is the current information about infant mortality in Oklahoma and how does it compare to other states and comparable countries?

The data from the CDC in 2017 reported that the IMR in Oklahoma was 7.7/ 1,000 births. This rate translates to about one infant dying every day in Oklahoma. This is a higher rate than 5.8/ 1,000 births in the U.S. as a whole (CDC, 2018). Since 2014, the rate for the U.S. as a whole has hovered just under 6/1,000 births. During this same period, the figure for Oklahoma was 8.1 in 2014, 7.3 in 2015, 7.4 in 2016, and 7.7 in 2017. This is clearly not a downward trending rate, although the Oklahoma State Department of Health (OSDH) reported in September 2019 that "(IMR) has decreased by 17% since 2007" (2019b). The average IMR in 10 countries comparable to the U.S. is 3.4/ 1,000 births. The U.S. rate is 71% higher than the average IMR in these 10 comparable countries. See Chart from KFF Health system tracker (Kamal &et al., 2019). Globally, infant mortality has decreased in the years between 1990 and 2017. Currently, Oklahoma's rate is similar to the rate in Costa Rica (CIA, 2020). Cuba has an IMR of 4.3/1,000 births.

While this overall rate and recent trends of infant mortality in Oklahoma are troubling, they mask other troubling facts. There are disparities in IMR among racial and ethnic groups in the U.S. and in Oklahoma. In 2019, OSDH reported that the American Indian IMR was 11.6/1,000 births, African-

American was 14.3/1,000 births, Hispanic 8.3/1,000 births, non-Hispanic (NH) white 5.9/1,000 births, and NH Asian and Pacific Islanders 6.7/1,000 births OSDH 2019a. The March of Dimes reports that preterm births in Oklahoma in 2018 were 11.4% of live births, but that the rate for black women was 38% higher than the rate among all women in the state. See Figure 6.

The March of Dimes goal for 2020 preterm births in Oklahoma is 8.1% (2020).

Figure 6. Percentage of Live Births Born Preterm by Race/Ethnicity in Oklahoma 2015-2017 (Average) (2020)

9.8	10.4	14.2	10.7	9.3	11.4
Hispanic	White	Black	American Indian/Alaska native	Asian Pacific Islander	Total

While all of these rates are above the rate for the U.S. as a whole, there are obvious disparities among these groups of Oklahomans which demand our attention and remedy (OSDH 2019a). The Peterson Center on Healthcare in partnership with the Kaiser Family Foundation reports that "Research indicates socioeconomic inequality in the U.S. is likely a primary contributor to its higher infant mortality, along with differential reporting methods" (Kamal et al., 2019)

How can the IMR for all Oklahomans be reduced?

The OSDH has stated:

> In order to achieve further improvement in birth outcomes, women must practice healthy behaviors and be engaged in primary and preventive health care services throughout their reproductive lives, including the time before they become pregnant (preconception) and between pregnancies (inter-conception) (OSDH 2015)

A report on research published in 2018 concluded that despite spending more of its GNP on health care than other developed countries, racial and ethnic inequalities exist in the U.S. which suggests that these same factors impact the IMR and racial disparity in IMR in Oklahoma as well (Khan et al). A 2019 report sponsored by the Georgetown University Health Policy Institute concluded that:

> Medicaid expansion has also played a role in reducing rates of maternal death, decreasing infant mortality rates, and improving the potential for optimal birth outcomes that can increase the prospects for a healthy childhood. Finally, it is clear if the remaining non-expansion states want to address significant racial disparities in maternal and infant health, expanding Medicaid is a critical first step. (Searing & Ross, 2019)

This same message comes from the March of Dimes:

> A growing number of studies indicate that Medicaid expansion has reduced the rate of women of childbearing age who are uninsured, improved health outcomes and helped to reduce disparities, including lower rates of premature birth and low birthweight for Black infants in expansion states. (2020)

Improving basic health education in our state might be another means of improving our maternal and infant outcomes. The Department of Health and Human Services in the U.S. noted in its state snapshot that Oklahoma is the only state in the union with no mandatory health education in the schools (2018).

The Oklahoma Health Improvement Plan (OHIP) considers Children's Health one of the state's Flagship Goals. The core measures for this part of the plan include:

Reduce infant mortality from 6.8 per 1,000 live births in 2013 to 6.4 per 1,000 live births by 2020 (2018 data).

Reduce Maternal Mortality from 29.1 per 100,000 live births to 26.2 per 100,000 live births by 2020 (2018 data).

Reduce Infant, Child and Adolescent Injury Mortality from 15.2 per 100,000 in 2013 to 13.9 per 100,000 by 2020 (2018 data).

GOAL 1 Improve Maternal and Infant Health Outcomes.

OBJECTIVE 1 Increase the percentage of women who receive prenatal care in the first trimester of pregnancy from 68.5% in 2013 to 71.9% by 2020 (2018 data).

OBJECTIVE 2 Reduce the rate of preterm births (births less than 37 weeks gestation) from 13.0 in 2012 to 2020 target of 11.4 by 2020 (2018 data).

OBJECTIVE 3 Reduce the rate of birth (per 1,000) for teenagers aged 15 through 17 years from 20.5 in 2013 to 19.2 by 2020 (2018 data).(OSDH 2015)

These objectives reflect the problems in Oklahoma, but they are modest goals that do not target the racial, ethnic, and economic disparities that determine the state's high IMR. The Central Oklahoma Fetal and Infant Mortality Review identified a number of actions that focus on the needs of racial/ethnic groups. These actions included more integrated community-based family service centers, home visitation programs, increasing the number of women who have primary care providers, establishing mobile health clinics, engaging the faith communities, increasing workforce opportunities for African Americans, and more (2016). A report on research published in 2016 in the Journal of Perinatology concluded,

> . . .that factors other than health care contribute to the higher IMR and racial disparity in IMR. One factor is disadvantaged socioeconomic status. All of the actionable determinates that negatively impact health-personal behavior, social factors, health-care access and quality and the environment-disproportionately affect the poor. Addressing disadvantaged socioeconomic status by improving access to quality health care and increasing social expenditures would have the greatest impact on the USA's IMR and racial disparity in IMR. (Lorenz, & et al, 2016)

Oklahoma could realize the greatest impact on the infant mortality rate in the state by adopting these same measures as well.

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Additional readings

Maternal mortality

https://www.cdcfoundation.org/sites/default/files/files/ReportfromNineMMRCs.pdf
(Building U.S. Capacity to Review and Prevent Maternal Deaths)

https://www.propublica.org/series/lost-mothers/
(Lost Mothers Series from Pro Publica and NPR)
https://ccf.georgetown.edu/wp-content/uploads/2019/05/Maternal-Health_FINAL-1.pdf
(Medicaid Expansion Fills Gaps in Maternal Health Coverage Leading to Healthier Mothers and Babies)

Infant mortality

https://okpolicy.org/wp-content/uploads/2013/01/Economic-Impact-of-Infant-Mortality.pdf?x71268
(Oklahoma Policy Institute PowerPoint on the costs of infant mortality)

What do we know about behavioral health care in Oklahoma?

Just as statistics on maternal mortality are difficult to compare, information on mental or behavioral health care and prevention are hard to trace. In the case of maternal mortality, information has been inconsistent because, until 2020, it was not measured the same way in all states. One problem with finding reliable statistics on mental health is that people are reluctant to talk about it. In some areas, to admit having a mental health issue is tantamount to admitting a serious personal failing. Although it was by no means a scientific study, one company asked its employees in ten different countries how the country they were living in approached mental health. Although several said that the situation was improving, all said that it was not something that was discussed freely. Telling, et al, 2015

It is also difficult to compare the incidence of mental illness in the United States to that of other countries because countries define mental health in different ways. Indeed, the LWVUS uses the term behavioral illness to refer to what was previously termed mental illness. The term behavioral illness includes substance abuse as well as mental illness.

However, a study conducted by the World Health Organization (WHO), concluded that the United States led the 14 countries studied in the prevalence of mental illness. The 14 countries included eight developed countries (Belgium, France, Germany, Italy, Japan, Netherlands, Spain, and the United States and six developing countries (China, Colombia, Lebanon, Mexico, Nigeria, and Ukraine) and involved over 60,000 face-to-face interviews with adults. WHO, 2004

In these interviews, 26.4% of those living in the United States reported having a mental health diagnosis within the previous year. This compares to 4.3% in Shanghai. Some of these conditions were regarded as mild; others were severe. Although there was a correlation between the severity of the illness and treatment, between 35.5% and 50.3% of all serious cases in developed countries had not been treated in the previous 12 months. In developing countries, the rates were between 76.3% and 85.4%.

As a guideline to identify mental diseases, the WHO investigators used the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM). This 1994 edition of the valuable text was almost 900 pages in length and cited 410 disorders. It should be noted that each edition of the DSM, first published in 1952 with only 130 pages and 110 mental disorders mentioned, has changed the definition of mental diseases. For example, in the 1952 edition, homosexuality was included in the list of mental illnesses as a sociopathic personality disturbance. Wiki

A recent article Amadeo, 2020 provides a detailed history of mental health treatment or lack thereof in this country. The focus of the article is on the process of deinstitutionalizing those with mental illnesses which occurred between 1955 and 1994. Although the motives behind deinstitutionalization of people with mental illness were well meaning, there was very little preparation for the release of the mentally ill into society. The goal was to create community centers where the mentally ill could be closer to their families. However, a large percentage of the mentally ill became homeless and others were placed in jails and prisons for a lack of anywhere else to go. And, the number of community-based or regional mental health centers was inadequate to deal with the needs of the mentally ill.

The Oklahoma Department of Mental Health and Substance Abuse Services has published a map showing the estimated percentage of individuals in all Oklahoma counties whose mental health needs are not being met. ODMHSAS, 2018 In the text preceding the map, the Department states that Oklahoma has some of the highest rates for mental illness and substance abuse in the country. We rank third for having any form of mental illness and second for having any form of substance abuse.

The National Institute of Mental Health NIMH, 2017 estimates that almost one in five adults suffers from some form of mental illness. However, the severity of these illnesses may vary from mild to severe. People who have occasional depressive or anxious moments have a mild form of mental illness. Their illness, in most cases, does not affect their ability to work. When a mental illness is severe the affected individual cannot function normally in society.

In a January 2019 article Turner, 2019 the Oklahoma Policy Institute wrote that Oklahoma ranked 46th in the nation in mental health care. Only one in three Oklahomans who have been diagnosed with some form of mental or behavioral health issue receives the care they need. Funding in the area of behavioral health has never been adequate in Oklahoma. But, in the four years from 2014 to 2018, the Oklahoma Department of Mental Health and Substance Abuse Services was cut $52.6 million in state funding which resulted in a loss of $80.4 million in federal matching funds. Although the agency was scheduled to receive a modest increase of funds in 2019, the amount they received would only begin to restore the funds lost earlier.

In a study of the behavioral health in Tulsa, it was found that people with mental health or substance abuse issues died 27 years earlier than the general population. Indeed, their life expectancy of under 50 years is comparable to that of people living in undeveloped countries. Aron, et al, 2018

The press has done a good job in revealing the human tragedies that have resulted from deinstitutionalization. A 2016 article (Cosgrove, 2016) discussed three cases that epitomize some of the worst failings of the way the mentally ill are treated in Oklahoma. In all three cases, a person who is mentally ill dies in jail. The first case concerns the problem that a mother has of finding a place for her mentally ill son. After the elimination of large mental health facilities (beginning in the 1960s and lasting until the 1990s), the state became wary of allowing hospitals inadvertently to become one of these facilities. As a result, a limit was placed on the number of beds a facility could have for the mentally ill. When the family of one young man attempted to find him a bed in one of these hospitals, they were repeatedly denied because the institution did not feel that the man "was a danger to himself and to others." According to the article, families have been known to claim that their child had threatened them just to get a stable place in an institution where he could be treated. In some cases, this has led to police involvement, incarceration and, in this case, death.

A recent series on jails and the mentally ill (McClung, 2020) by *The Frontier* contains a horrifying mini-documentary about the 2014 death of a Native American (Comanche) woman who had bipolar illness at the Lawton city jail. The woman had refused to take her medication and her family reported her to the police with the goal of having her placed in a facility where she could be stabilized. She was at her grandparents' house and was accused of trespassing. When she resisted arrest, she was jailed. According to reports, she started to sing Comanche hymns to calm herself. When she refused to stop singing, she was either hung by her arms or repeatedly tased and subsequently died.

The case of this Lawton woman was not an isolated case. According to the National Alliance on Mental Illness (NAMI), American Indians/Alaskan Natives as a group reported a higher incidence of mental illness than any other ethnic group. See Figure 7 on the following page.

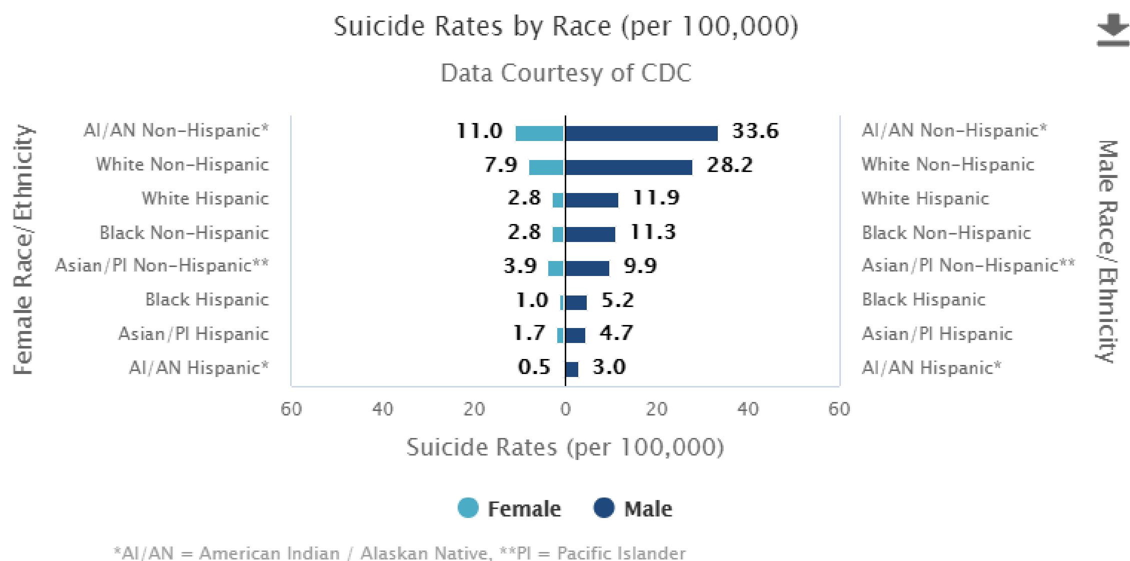
Figure 7 12-Month Prevalence of Any Mental Illness (All U.S. adults)

All	Asian	Black	Hispanic	White	Native American
19%	15%	16%	17%	20%	22.1%

Source: https://www.nami.org/NAMI/media/NAMI-Media/Infographics/NAMI-You-Are-Not-Alone-FINAL.pdf

It is also important to note that non-Hispanic American Indian or Alaska Native males experienced the highest rate of suicide of any demographic group, at 33.6 deaths per 100,000 population. And, non-Hispanic American Indian or Alaska Native females experienced the highest rate of suicide in females of any race/ethnic group, at 11.0 deaths per 100,000 population. See Figure 8 below.
Source: https://www.nimh.nih.gov/health/statistics/suicide.shtml

Figure 8.



When one reads the history of the closure of the large mental health institutions, and also reads the many accounts of the state's failure to meet the needs of the mentally ill, it is impossible not to wonder why Oklahomans have allowed the current situation to last as long as it has. Mental illness touches many families. Michael Brose, the Chief Executive Officer of the Mental Health Association of Oklahoma, has said that closing the large hospitals for the mentally ill may have been the right thing to do. But it was done too quickly without adequate attention to potential consequences. And there is still no working plan for helping the mentally ill. Jails are not treatment facilities; they were never meant to be, and they can't meet the needs of mentally ill individuals.

Just as jails and prisons are not appropriate places for the treatment of mental illness, neither are schools. A recent blog (Prothero, 2020) mentioned research that showed that 35% of children between the ages of 14 and 18 experience a mental health crisis each year. These crises include thoughts of suicide, attempted suicide and self-injury. However, most schools are not equipped to handle these crises. And, both research and common sense dictate that a child's mental health issues should not have to reach crisis stage before they are addressed.

We are fortunate enough to live at a time when the impact of adverse childhood experiences (ACEs) are being recognized. But, within Oklahoma schools, there are often no personnel trained to handle students who are dealing with these experiences. With few counselors or professional social workers in our schools and class sizes that are too large, the average classroom teacher is overwhelmed when students displaying some form of mental illness become part of her daily work.

As Oklahoma seeks to improve its health care services in general, it is important that we remember the role that mental health plays in the overall health care picture. Until the needs of the mentally ill are met, our state cannot hope to achieve "top ten" status.

How can mental health services be improved? According to the Oklahoma Policy Institute, one of the most effective ways is by expanding Medicaid. Not only would this expand the number of people with access to mental health services, it would take some of the burden off the state budget. At present, this budget has not restored the cuts to services made during the previous ten years. Recognizing behavioral health needs as comparable to physical health needs and treating them as such would also improve services in this area. If you have a broken leg, you are seen immediately in an emergency room; if you suffer from crippling depression or anxiety, you may have to prove that you're a danger to yourself or to others before you are treated.

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What is the role of health insurance in overall health care?

A 2017 article in the Annals of Internal Medicine (Woolhandler & Himmelstein, 2017) examined the relationship between access to health insurance and mortality. The authors concluded "[a] mounting body of evidence indicates that lack of health insurance decreases survival". They point to several studies as evidence of their claim.

The Oregon Health Insurance Experiment (Baicker, Taubman, & et al., 2013) is the only available **randomized controlled experiment** that has examined the health effects of insurance access. This study, "suggests that it [insurance access] may cause a clinically important decrease in mortality, but wide CIs [i.e., confidence intervals basically, small **sample sizes**] preclude firm conclusions." The National Health and Nutrition Examination Study (Wilper, Woolhandler, et al., 2009) showed "substantial mortality improvements associated with [insurance] coverage." Analyses based on data from the Health and Retirement Study (McWilliams, Zaslavsky, et al., 2004). "have found that coverage in the near-elderly slowed health decline and decreased mortality." And finally, two studies in the United States and in Canada, (Stephenson, Sykes, et al., 2017) and (Hanratty, 1996), compared

mortality trends in matched locations with and without coverage expansions. Both found "large reductions in mortality associated with increased coverage."

The mechanism by which insurance coverage might lead to better health reinforces what common sense might propose. For example, recent articles, (Wilper, Woolhandler, et al., 2008) and (Amarenco, Abboud, et al, 2014), find that "[i]mproving access to health care may reduce population-level cardiovascular disease (CVD) risk" because "having health insurance leads to higher rates of CVD diagnoses and reduces risks of major cardiac events suggesting that the disease is more likely identified and controlled among the insured."

A 2015 study, (Alcalá, Albert, et al., 2015), found, in a detailed analysis, that after controlling for age, sex, and race or ethnicity, chronically ill patients without insurance were more likely than those with coverage to have not visited a health professional (22.6% vs. 6.2%) and to not have a standard site for care (26.1% vs. 6.2%) but more likely to identify their standard site for care as an emergency department (7.1% vs. 1.1%).

The uninsured, then, are much less likely to visit a health professional for prevention or early detection of potentially fatal diseases, much less likely to have a standard site for treatment of such diseases, and much more likely to use emergency department care as a last resort. A July 2019 working paper from National Bureau of Economic Research, (Miller, Altekruse, et al., 2019), examined the relationship between Medicaid coverage specifically and mortality. Its analysis compared "changes in mortality for near-elderly adults in states with and without **Affordable Care Act Medicaid expansions**." The study compared the change in mortality rates for the states that expanded Medicaid to the change (or lack thereof) in mortality rates for the very similar states that failed to expand Medicaid over the same period of time. The working paper found a significant reduction in mortality for the Medicaid expansion states as compared with the non-expansion states. This analysis estimated that, for this population, a failure to expand Medicaid resulted in 15,600 additional deaths nationwide over the four-year period of the study.

The Affordable Care Act (ACA) was intended to address the need for some form of health insurance for all. The basic characteristics of this Act are outlined in Appendix C. But, from almost the very beginning, the ACA came under attack and one after another of its provisions was eliminated.

What would the conclusions of this study imply for Oklahoma, which is a non-expansion state? Based on the Kaiser Family Foundation State Health Facts web site, (Kaiser Family Foundation, 2017), the 130,000 Oklahoma residents eligible for Medicaid in 2017 represented 4.5% of the total US residents eligible for Medicaid in 2017. Assuming that the potential reduction in mortality for Oklahoma would be in line with that of all non-expansion states in the working paper (of which Oklahoma was one), the analysis shows that Oklahoma's failure to expand Medicaid resulted in approximately 702 additional state deaths (4.5% of 15,600) over the four years of the study, or over 175 deaths per year. That is, failure to expand Medicaid in Oklahoma has likely resulted in unnecessary deaths each year greater than the number of innocent people killed in the Oklahoma City bombing in 1995.

Based on current data, 702 is a reasonable, scientific estimate of the additional deaths in the state over the four-year period; but it is not a count of the actual number of these unnecessary deaths. We don't know who died as a result of Oklahoma's failure to expand Medicaid. However, we have a good idea of what they were like. The actual group would have been made up of the kind of people we encounter

every day. It is likely that more than one was a grandfather who died of heart failure. According to the Centers for Disease Control and Prevention (CDC) Oklahoma ranks first in the nation in rate of fatal heart disease, (Centers for Disease Control and Prevention, 2017), Oklahoma's heart disease death rate is 44% higher than the national average.

It is likely that the group included a mother who died of breast cancer. Oklahoma ranks fourth in the nation in rate of cancer deaths, (Centers for Disease Control and Prevention, 2017), which is 16% higher than the national average. And these unnecessary deaths could well have included a father with fatal diabetes. Oklahoma also ranks fourth in the nation in rate of diabetes deaths, (Centers for Disease Control and Prevention, 2017), which is 42% higher than the national average. And the group could have included an elderly woman who died of Chronic Lower Respiratory Disease (CLRD), which includes occupational lung disease, asthma. and COPD – which itself includes emphysema and chronic bronchitis. Oklahoma ranks second in the nation in CLRD death rate – that rate being 61% higher than the nation's average.

This group of 702 or so would have been potential Medicaid recipients if Oklahoma had expanded Medicaid. However, many other Oklahomans are uninsured. According to the (Oklahoma Policy Institute, January 2020), Oklahoma's 14.2% uninsured rate – its rate of those without any form of health insurance – was the second highest in the nation in 2017. And, as Figure 9 shows, the gap between Oklahoma's rate and the national rate has been increasing since 2013. (The 2018 uninsured rate for Oklahoma remained at 14.2% for 2018 according to a U.S. Census Bureau report of November 2019 (Berchick, Barnett, et al., 2019).) In addition, as Figure 10 (Oklahoma Policy Institute, January 2020), shows, as of 2017, Oklahoma's child uninsured rate is nearly two-thirds higher than the national average.

Figure 9.

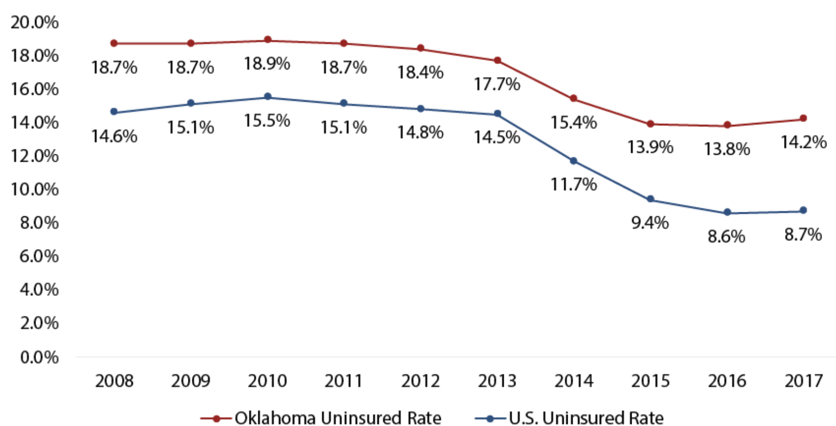
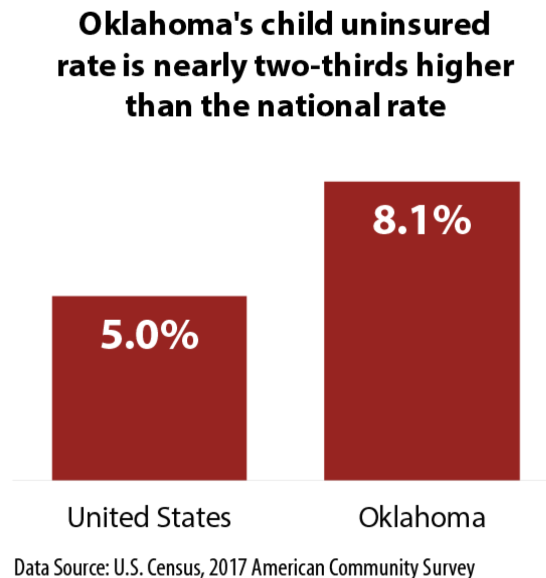


Figure 10.



The poor are not the only group that suffers from inadequate health insurance coverage. Even people who have health insurance through their work may have gaps in their coverage. Obviously, having some insurance is better than having none. And, a large percentage (83%) of people who get insurance through their workplace rate their health insurance plans as good or excellent (Scott). But, while workplace-based health insurance plans remain the type of plan that approximately half of the U.S. population has (153 million), (Abelson) research by the Commonwealth Fund shows that many workers are underinsured (Scott).

Not only do many workplace-based health insurance plans fail to provide adequate coverage, but the cost of both the health care premiums and the deductibles have grown faster than workers average wages (Collins, et al). And, many family policies require high co-pays for simple things such as taking a child with a sore throat to a doctor.

It should be evident that expansion of Medicaid in Oklahoma would provide increased health benefits to many Oklahomans, even extending life in some cases. This is something that the state could have done and could still do. It is also true that, on the national level, improving the ACA, rather than eliminating features would improve the health of many Oklahomans.

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What can be done to improve health care in Oklahoma?

As the League of Women Voters of Oklahoma (LWVOK) research and writing team has worked on the health care study materials, we have learned a lot. Some of these discoveries have already been discussed within the previous sections of these materials. For example, we learned that ACEs could have a long-term effect on a child's development. We also read an article that argued that health care only accounts for 10% of all factors affecting premature death. However, in that same article Schroeder, the author cites health care as being responsible for a 40% decrease in deaths from heart disease. And, a November 2019 article explains how the expansion of Medicaid Broaddus & Aron-Dine has saved lives because it has increased the number of individuals who see a doctor regularly.

However, our reading has made us aware of other trends that could positively influence health care in our state in the future. One of these is advanced primary care. Advanced primary care (CMS, 2017) is a government initiative designed to improve a patient's health care by centralizing and coordinating all aspects of the individual's health care. In some cases, this model is used to link all the physicians and caregivers for a single individual into one team. In other cases, the team may include dieticians and people who deal with transportation.

This model recognizes the complexity of health care, particularly in older adults, as well as the social determinants of health. Many older adults may see several doctors: their primary care doctor as well as one or more specialists. Rather than ask these patients to coordinate their own care, the advanced

primary care model provides the patient with someone who is coordinating the advice and prescriptions of these various doctors so that nothing is missed.

A more comprehensive version of advanced primary care would include a variety of non-medical personnel. The patient's coordinator or advanced primary care counselor would also make sure that the patient had adequate nutrition and transportation. If someone with a chronic illness were having problems finding adequate fresh produce or couldn't get to work because of a lack of adequate public transportation, non-medical personnel on her team would help with those issues.

A recent article (Sokol, 2020) provides a clearer explanation of how advanced primary care would work and why it is needed. The gist of the article is that because of a shortage of physicians, few people have a primary care physician (**PCP**). Even if they do, the PCP may not have the time necessary to address all the patients' concerns. By becoming part of a larger network of care providers, non-medical personnel can help provide more comprehensive care for the patient and relieve medical personnel to do the work they were trained to do.

Another trend is the use of advanced tracking systems to improve the delivery of health care primarily in doctors' offices and hospitals. The Sokol article mentioned in the previous paragraph appeared in an online journal called *Health IT Analytics*. The focus of this journal is on how careful tracking and documenting of procedures and results can improve health care. Some articles suggest that the world of data tracking and algorithms is also aware of other trends in medicine. One such article (Kent, 2020) discussed the difficulties of using data to address the social determinants of health. The issue is that most of the factors related to the social determinants of health are revealed in an unstructured format such as notes on missed appointments, payment patterns or conversations. The article suggested that a new technology called **natural language processing (NLP)** would help convert such unstructured data into something that could be measured.

The use of data analytics and artificial intelligence is relatively new to the medical field. The idea that people's health is largely impacted by social determinants is also relatively new. From the point of view of the authors whose articles appear in *Health IT Analytics*, improving the health outcomes for minority and underserved populations depends on ensuring that there is enough data about them. Just as many health studies (symptoms of a heart attack, for example) have been based primarily on what has been observed in men, right now most standards of care are based on Caucasian populations.

One of the comments we received from a member of the Oklahoma Nurses Association pointed to a way of addressing the shortage of doctors in our state. There are many areas where a **nurse practitioner, nurse midwife,** or **physician assistant** could perform the work of a doctor. This is particularly true in the area of mental health where a specially trained PA could reduce the number of Oklahoma counties where there is no professional who works full-time with the mentally ill.

Proactive-MD, an organization dedicated to improving the doctor/patient relationship, has suggested five ways in which health care could be improved. The methods Proactive-MD 2019 listed are similar to ones recommended by other experts:

- Collect data and analyze patient outcomes,
- Set goals and commit to ongoing evaluation,
- Improve access to care,

- Focus on patient engagement, and
- Connect and collaborate with other organizations.

In the article cited above, the authors mention the fact that **electronic health records (EHR)** are currently used primarily for billing purposes but could be used more effectively along with health outcome studies and patient satisfaction surveys to track a patient's health.

According to the **Agency for Healthcare Research and Quality (AHRQ)**, Oklahoma is already engaged in setting goals and committing to ongoing evaluation. In their report by state, they indicate that Oklahoma is meeting or exceeding 63 of the 126 goals. Our state is close to meeting 30 other goals but is far from meeting 33 goals. It should be noted that each of these goals is very specific and somewhat limited. For example, one of the goals or benchmarks that Oklahoma has exceeded is: Home health care patients whose management of oral medications improved. An example of a benchmark that Oklahoma is close to meeting is: Children ages 19-35 months who received 4 or ore doses of diphtheria-tetanus-pertussis vaccine. The measure on which Oklahoma is furthest (295.7%) from the benchmark is: Long-stay nursing home residents have depressive symptoms. It should be noted that each of these benchmarks is a clickable file. When one is opened, you can see how Oklahoma has compared to the national average over a period of years.

The Proactive-MD article considers access to care as the single most important factor for improving health outcomes. However, it notes that access to care is difficult for many because they do not have insurance. When a person lacks access to health care there are serious consequences. The article indicates that underlying chronic diseases make up 75% of annual health spending in the U.S., but we access preventive care at 50% the recommended rate.

As far as focusing on patient engagement and connecting and collaborating with other organizations, the Proactive-MD article places the responsibility on the primary care physician (PCP). Engaging the patient in her own care is essential for real improvement to take place and the PCP is the most likely person to be able to do that. The PCP is also the one who should constantly be seeking other entities with which to partner in achieving health goals and benchmarks.

The future of health care shows great promise. We know what we need to do to improve the health of all Oklahomans. But improvement will not come automatically. Without the expansion of Medicaid, efforts to educate people as to their responsibilities for their own health, and an increase in funding in all areas of health, Oklahoma will never achieve top ten status.

Note: These health care materials are as current as the writing team could make them. Until the date (April 15, 2020) that these materials are posted on the LWVOK website, we will be adding information to Appendix D. Following that date, new information will be placed on the LWVOK Health Care Study Facebook page.

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Glossary

Adverse Childhood Experience (ACE)--Potentially traumatic events that occur in childhood (0-17 years). They include being abused, having a family member attempt or die by suicide, and witnessing violence in the home or community. They also include being in a household where they are exposed to substance abuse, mental health problems, and instability due to parental separation or household members being in jail or prison.

Affordable Care Act Medicaid Expansion--The original provisions of the Affordable Care Act included an expansion of eligibility to adults with incomes up to 138 percent of the federal poverty level. Originally, a requirement, the June 2012 Supreme Court ruling in *National Federation of Independent Business v. Sebelius* effectively made the Medicaid expansion an option. To date, slightly more than half of states have opted to expand.

Agency for Healthcare Research and Quality (AHRQ)—According to their online profile, they are the lead Federal agency charged with improving the safety and quality of America's health care system. AHRQ develops the knowledge, tools, and data needed to improve the health care system and help Americans, health care professionals, and policymakers make informed health decisions. They are located within the U.S. Department of Health and Human Services. https://www.ahrq.gov/cpi/about/profile/index.html

AIM--The Alliance for Innovation on Maternal Health (AIM) is a national data-driven maternal safety and quality improvement initiative based on proven implementation approaches to improving maternal safety and outcomes in the U.S. AIM works through state teams and health systems to align national, state, and hospital level quality improvement efforts to improve overall maternal health outcomes. AIM is funded through a cooperative agreement (Grant # UC4MC28042) with the U.S. Department of Health and Human Services, Health Resources and Services Administration's Maternal and Child Health Bureau. https://safehealthcareforeverywoman.org/aim-program/

Amenable mortality--Deaths from conditions that are amenable to treatment; in other words, preventable deaths.

Community rating – Community rating refers to an insurance pricing system that prohibits medical underwriting and requires that all of a carrier's insureds in the same geographical area pay the same premiums, regardless of their health status. Source: https://www.healthinsurance.org/glossary/community-rating/

Disability adjusted life years (DALY)--a measure of disease burden and the rate per 100,000 shows the total number of years lost to disability and premature death.

Electronic Health Records (EHR)—The simplest way to look at EHR is that they are digital versions of a medical patient's chart.

Experience rating -- **Experience rating** (**insurance**) is the amount of loss that an **insured** party **experiences** compared to the amount of loss that similar insureds have. **Experience rating** is most commonly associated with workers' compensation **insurance**. It is used to calculate the **experience** modification factor.

FMLA--Family and Medical Leave Act—a federal law regulating family leave.

Health access and quality (HAQ) -- is based on amenable mortality and uses age-standardized, risk-standardized mortality rates for 32 causes that timely and effective health care could potentially prevent.

Infant death-- a live birth dying before day 365 or completing one year of life-- From technical notes https://www.ok.gov/health2/documents/Canadian%20County2014.pdf

Infant mortality rate--Computed by dividing the number of infant deaths in a calendar year by the number of live births registered for that same time period. IMR is the most widely used index for measuring the risk of dying during the first year of life. https://www.cdc.gov/nchs/data/databriefs/db355-h.pdf

Low birth rate--birth weight 500-2499 grams Very low birth rate = birth weight 500-1499 grams Gestational age data shown in this report are derived from the obstetric estimate of gestation and date of last menses. From technical notes https://tinyurl.com/qtz89so

Maternal Mortality— the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes. Official statistics are obtained through death certificates completed by physicians and reported to the states. https://tinyurl.com/yynywunj

MMR—maternal mortality rate, the number of maternal deaths per 100,000 live births

MMRC Maternal Mortality Review Committee—A maternal mortality review committee (MMRC) is a group of professionals and partners who serve pregnant and postpartum women, and who collectively review these deaths and examine factors that led to the death. The goal of a MMRC is to determine if the death is related to the pregnancy and if it could have been prevented. The committee then provides recommendations that could prevent future deaths and protect the health and well-being of women during and after pregnancy.https://www.health.pa.gov/topics/healthy/Pages/Maternal-Mortality.aspx

Natural language processing (NLP)—A form of artificial intelligence that enables a device to make sense of human speech for the purpose of extracting information.

Nurse midwife -- a registered nurse with additional training as a midwife who delivers infants and provides prenatal and postpartum care, newborn care, and some routine care (such as gynecological exams) of women

Nurse practitioner See physician assistant

OECD--The Organization for Economic Cooperation and Development is a consortium of 36 countries that are committed to democracy and the market economy. It provides a platform to compare policy experiences, seek answers to common problems, identify good practices and coordinate domestic and international policies of its members.

OPQIC—Oklahoma Perinatal Quality Improvement Collaborative—its mission is to provide leadership and engage interested stakeholders in a collaborative effort to improve the health outcomes for Oklahoma women and infants using evidence-based practice guidelines and quality improvement processes.

Physician assistant (PA) Both the PA and the Certified Nurse Practitioner (CNP) or Nurse Practitioner are highly trained medical professionals who can perform some of the duties traditionally reserved to medical doctors. Two of these duties are diagnosing illness and prescribing medication.

PCP—Primary care physician: The physician who has first contact with someone with an undiagnosed ailment and/or the physician who coordinates the care of all conditions a patient has. Sometimes also referred to as a general practitioner. https://en.wikipedia.org/wiki/Primary_care_physician

Pregnancy-related death--To facilitate the identification of maternal deaths in circumstances in which cause of death attribution is inadequate, a new category has been introduced: pregnancy-related death which is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death. https://www.who.int/healthinfo/statistics/indmaternalmortality/en/

Preterm births--20-36 weeks gestation Early term/late preterm births = 37-38 weeks gestation--From technical notes https://tinyurl.com/qtz89so

Preventable death--MMRCs used the following definition of preventability: "a death is considered preventable if the committee determines that there was some chance of the death being averted by one or more reasonable changes to patient, community, provider, health facility, and/or system factors" https://tinyurl.com/rypwad2

Randomized controlled experiment--A randomized controlled experiment is a scientific trial that is structured with a control group and a treatment group in such a way that the membership in the two groups is determined randomly. In this way, any difference in outcome between the two groups can more certainly be ascribed to the treatment rather than to extraneous factors.

Sample Size--The sample size is the number of sample units (i.e., persons, families, or whatever is being examined) selected from the population that is being studied. The larger the sample size, the more certain researchers can be that the estimates made from it reflect reality.

SIDS--sudden unexpected infant death syndrome

Toxic Stress--This Stress Syndrome, which health experts also call adrenal fatigue or adrenal hypofunction, is the direct result of chronic, excessive and relentless stress that a person's own system no longer is able to combat appropriately. https://peakmedicalclinic.com/plans/stress-plan/definition-of-toxic-stress/

Weathering--Weathering is a physiological process that accelerates aging and increases health vulnerability. It is spurred by chronic toxic stress exposures over the life course and the tenacious high-effort coping [that] families and communities engage in to survive them, if not prevail. https://tinyurl.com/vczyuuk

Appendix A:
Factors included in Oklahoma counties' health ratings

Causes of Death:

Alzheimer's Disease Deaths
Cerebrovascular Disease Deaths
Chronic Lower Respiratory Disease Deaths
Diabetes Deaths
Heart Disease Deaths
Influenza/Pneumonia Deaths
Intentional Injury Deaths
Malignant Neoplasm Deaths
Nephritis Deaths
Suicides
Unintentional Injury Deaths
Unintentional Poisoning Deaths

Disease Rates:

Asthma Prevalence
Colon Cancer Incidence (Excluding Rectum)
Depression (Ever)
Diabetes Prevalence
High Blood Pressure (Ever)
High Cholesterol Diagnosis (Ever)
Invasive Breast Cancer Incidence (Female Only)
Lung Cancer Incidence
Prostate Cancer Incidence

Mortality:

Infant Mortality
Life Expectancy at Birth
Total Mortality

Risk Factors and Behaviors:

Adverse Childhood Experiences (3 or more)
Binge Drinking
Current Smoking Prevalence (Adults)
Dental Visits (Adults)
First Trimester Prenatal Care
Frequent Poor Health Days (≥ 14 days in past 30 days) that Limited Usual Activities
Frequent Poor Mental Health Days (≥ 14 days in the past 30 days)
Frequent Poor Physical Health Days (≥ 14 days in the past 30 days)
Good or Better Health Rating
Heavy Drinkers
Low Birth Rate
Minimal Fruit Consumption (<1/day)
Minimal Fruit Consumption (<1/day) (Historical)
Minimal Vegetable Consumption (<1 day)
Minimal Vegetable Consumption (<1 day) (Historical)
No Physical Activity
Obesity
Seniors Influenza Vaccination
Seniors Pneumococcal Vaccination
Teen Births
Usual Source of Care

Socioeconomic:

No insurance coverage
Poverty

Appendix B.
Resources for Local League Health Care Discussion

Each local League is invited to address the consensus questions from the perspective of its home county.

What health characteristics make your county unique?
What are the greatest challenges your county faces in the area of health care?
What efforts are needed to address these challenges?
Has your county taken any measures to improve health care that could/should be replicated at the state level?

Choose a county that you think would be at the opposite end of the spectrum from your county and explain how the two counties are different and why?

Information about poverty in Oklahoma

https://www.indexmundi.com/facts/united-states/quick-facts/oklahoma/percent-of-people-of-all-ages-in-poverty#chart

State and County Health Indicators

https://stateofstateshealth.ok.gov/Data/HealthIndicator

The following maps have socio-economic information about the counties:

https://www.ok.gov/health2/documents/County%20Health%20Reports%202017%20Supplemental%20Maps.pdf

For detailed information about your county:

https://www.ok.gov/health/Community_Health/Community_Epidemiology/County_Health_Profiles/index.html

State Map of Resources for Women:

https://opqic.org/map/

2020 Snapshots of SoonerCare demographics for Oklahoma Counties: Download the PDF from this link:

Total Enrollment by County

Appendix C.
Affordable Care Act

These are the initial access and coverage provisions of the Affordable Care Act (ACA).

Access

- Require employers to cover their workers, or pay penalties, with exceptions for small employers.
- Provide tax credits to certain small businesses that cover specified costs of health insurance for their employees, beginning in tax year 2010.
- Require individuals to have insurance, with some exceptions, such as financial hardship or religious belief.
- Require creation of state-based (or multi-state) insurance exchanges to help individuals and small businesses purchase insurance. Federal subsidies will limit premium costs to between 2 percent of income for those with incomes at 133 percent of federal poverty guidelines, rising to 9.5 percent of income for those who earn between 300 percent and 400 percent of the poverty guidelines.
- Expand Medicaid to cover people with incomes below 133 percent of federal poverty guidelines.
- Require creation of temporary high-risk pools for those who cannot purchase insurance on the private market due to preexisting health conditions, beginning July 1, 2010.
- Require insurance plans to cover young adults (through age 26) on parents' policies, effective Sept. 23, 2010.
- Establish a national, voluntary long-term care insurance program for "community living assistance services and supports" (CLASS), with regulations to be issued by Oct. 1, 2012.
- Enact consumer protections to enable people to retain their insurance coverage (see next section).

Coverage

- Prohibit lifetime monetary caps on insurance coverage and limit the use of annual caps.
- Prohibit insurance plans from excluding coverage for children with preexisting conditions.
- Prohibit insurance plans from cancelling (rescinding) coverage, except in cases of fraud.
- Establish state-based rate reviews for "unreasonable" insurance premium increases.
- Establish an office of health insurance consumer assistance or an ombudsman program.
- Establish the share of premiums dedicated to medical services (minimum medical loss ratios).

Appendix D.

What COVID-19 has taught us about health care

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