July 9, 2020

Re: 2019 OB Summit Report

This report provides a detailed description of the collaborative work done at the OB Summit hosted by IDPH on September 17, 2019. We acknowledge the delay in releasing this report and apologize for any inconvenience the delay may have caused. The information presented in the report is an important summary of the state of maternal health care in Iowa. We hope it will be shared broadly. Additionally, this report will be utilized by the Iowa Maternal Quality Care Collaborative (IMQCC) as it develops initiatives to guide, monitor and improve obstetrical care in Iowa.

We want Iowa to be the safest place for women to have a baby. We want to eliminate preventable maternal deaths and to end the significant racial and ethnic disparities in pregnancy related mortality in Iowa. We want to make sure pregnant women have access to care where ever they may live in Iowa. The OB Summit held in the fall of 2019 was an important step to hear from a wide range of stakeholders to determine the gaps that are preventing us from reaching our desired maternal health goals.

We have already begun to implement some of the suggestions that were made at the summit to address some of the identified barriers to improve health care for women in Iowa. Many of these efforts have been undertaken by IDPH's HRSA Maternal Health Innovation Grant and in partnership with the University of Iowa Obstetrical Department. They include the following:

- Established the Iowa Maternal Quality Care Collaborative, holding the first meeting on May 19th
- IDPH will submit an application in fall 2020 to join the Alliance for Innovation on Maternal Health (AIM) to support quality initiatives at the state's birthing hospitals.
- Implemented a social media campaign to educate pregnant women on the importance of wearing a seat belt.
- Will soon begin new education initiatives for Family Practice Obstetric Fellowship and a rural track OB/GYN residency, rural-population medical training for residents and fellows.
- Conduct a feasibility study on developing a Certified Nurse Midwifery program in Iowa.
- Improve the collection, analysis and application of state-level data on maternal morbidity, maternal mortality and maternal health outcomes.
- Iowa has developed uniform designation for Levels of Maternal Care (LoMC) that are complementary but distinct from Levels of Neonatal Care.
- Will conduct key informant interviews to help capture the wisdom and experiences of birth families in Iowa to supplement our state-level data collection efforts.

IDPH continues to strengthen its investment in ensuring the health and safety of Iowa mothers. Thank you for your interest and partnership in these efforts.

Sincerely,

Gerd W. Clabaugh, Director
Iowa Department of Public Health

OB Summit Report

September 17, 2019 I Olsen Center Des Moines University, Des Moines, Iowa

A Summary Report to Promote Action

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Protecting and Improving the Health of Iowans

IDPH IOWA Department of PUBLIC HEALTH

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Iowa Chapter of ACOG provided the lunch for the Summit

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Executive Summary

Introduction and Background

On September 18, 2019, 55 key stakeholders convened at the Iowa OB Summit to discuss the maternal health care experience from various levels – from the provision of direct care in both urban and rural settings to system approaches such as public policy. The intent of the Iowa OB Summit was to identify strategies to eliminate preventable maternal deaths, end significant racial and ethnic disparities in pregnancy related mortality in Iowa, and ensure pregnant women have access to care regardless of where they live in Iowa.

Governor Reynolds opened the 2019 OB Summit with a video welcome highlighting the following goals:

- Make Iowa the safest place in the nation for mothers and their children
- Work together to improve the care of women before, during and after pregnancy with the ultimate goal of eliminating preventable maternal deaths.

The 2019 OB Summit was held to determine what gaps and barriers exist to reaching these goals.

Since 1990, the rate of pregnancy-related deaths (deaths that occur during or within one year after the end of the pregnancy) in the United States has more than doubled and approximately 3 in 5 pregnancy-related deaths are preventable. In 2015, the US maternal mortality death rate was 26.4 deaths/100,000 live births while Iowa's maternal mortality rate was 22.8 deaths/100,000) live births. **For additional perspective, in 1998 Iowa's maternal mortality rate was 8.1 deaths per 100,000 live births, and in 2018 Iowa's rate was 21.3/100,000 live births (Data source: Vital Statistics of Iowa Annual reports).**

The Iowa Maternal Mortality Review Committee (MMRC) reviewed Iowa cases for maternal deaths from the second half of 2015 through the first half of 2018. Thirty-nine Iowa women died during childbirth or within one year of a live birth or fetal death in this time period. Maternal deaths are rare in Iowa, yet rising rates serve as a warning sign to merit further investigation. A full report from the MMRC is available at https://idph.iowa.gov/Portals/1/userfiles/38/Final%202020%20MMRC%20report.pdf

A brief summary of important findings from the MMRC case summaries are as follows:

- The data revealed disparities in patient outcomes based on race. Non- Hispanic Black women had a six-fold higher risk, Non-Hispanic Asian/Pacific Islander women had an almost four-fold increased risk and Hispanic women had 1.6-fold increased risk of maternal death as compared to Non-Hispanic White women.
- Eleven maternal death cases were pregnancy-related (three directly and eight indirectly), six cases were pregnancy-associated, and nineteen cases were not related to the pregnancy. (For three of the cases, there was not enough information to determine if the death was related to the pregnancy.)
    - The leading causes of the pregnancy-related deaths were cardiac-associated and hemorrhage. Other causes of pregnancy-related deaths included pre-eclampsia, pulmonary embolism, pneumonia, infection, drug overdose, and homicide from domestic violence.
    - Deaths determined by the MMRC to be "Not pregnancy-related deaths" (motor vehicle crashes, suicides, overdose, homicides, cancer and others) occurred at a rate of 16.2/100,000 live births. This rate is almost double the rate for pregnancy-related causes of death which was 9.4/100,000 live births.

- Common co-occurring conditions were obesity, hypertension, diabetes, depression, and substance abuse.

During the same time period maternal mortality rates have been increasing in Iowa, other statewide health system changes were occurring. As a largely rural state, rural communities are struggling with issues such as access to health care, workforce recruitment and retention, and hospital vitality. Thirty-five Iowa birthing units have closed in Iowa since December of 2000; ten of these closures occurred in the past two years. When asked about the difficulties rural hospitals face in keeping obstetrical units open, a study from Wisconsin Office of Rural Health cited challenges with provider coverage, maintenance of providers' skills, and low or reduced volume of deliveries. Due to limited job opportunities in some rural Iowa counties, young families are leaving for urban areas with more job opportunities; thus rural hospitals see decreases in deliveries, while urban hospitals continue to see growth. In 2018, 43% of births were reimbursed by Medicaid, which reimburses for obstetric services at a lower rate than private insurers. As a result, it can be difficult for rural hospitals with low volume obstetric units and a high percentage of Medicaid-reimbursed births to cover their expenses. Obstetrical units must maintain staff on call or in the hospital 24 hours a day, 365 days a year regardless of their patient volume. It is challenging and expensive to maintain adequate numbers of on-call providers under these circumstances.

Obstetrical workforce challenges also persist. Current findings in the "OB Care in Iowa: a Report of Health Care Access to the Iowa State Legislature", found in the link https://idph.iowa.gov/Portals/1/userfiles/88/OBCareinIowa_2020LegislativeReport%20%28FINAL_SUBMTTED%29.pdf , shows family physicians and obstetrician/gynecologists continue to be the most common provider types performing delivery services in Iowa. Family physicians with general surgeons performing C-Sections are the most common provider type in rural Iowa. In order to provide obstetrical care, birthing hospitals must be equipped to perform C-sections. When a rural hospital is dependent on a general surgeon to provide C-section coverage, this can present an additional workforce challenge. If the general surgeon in a rural community retires or moves and a new surgeon cannot be found, the obstetrical services will close.

The 2019 OB Summit participants included representation from over 30 organizations.

OB Summit Participant Organizations

Convening Organizations
Iowa Department of Public Health (IDPH)
Participant Organizations
Association of Maternal & Child Health Programs (AMCHP)
Broadlawns Medical Center, Family Medicine Residency Director
International Cesarean Awareness Network of Central Iowa
Des Moines University, Dean of the College of Osteopathic Medicine, Chief of External and Governmental Affairs and Chair of Specialty Medicine
National Association for the Advancement of Colored People (NAACP), Chair of Health
Child and Family Policy Center
Count the Kicks
Iowa Department of Human Services
American Home Finding Association, Executive Director, Title V MCAH Program

State of Iowa – Governor's Office, Health Policy Advisor
EveryStep Healthy Start Program Director
IDPH, Department Director
IDPH Deputy Director
IDPH, Legislative Liaison
IDPH Division of Behavioral Health & Substance Abuse
IDPH Division of Tobacco Use Prevention & Control
IDPH Division of Chronic Disease Prevention and Health Promotion
IDPH, Title V Maternal and Child Health Director
Iowa Section of American College of Obstetrics and Gynecology (ACOG)
Iowa Department of Human Rights
Iowa Association of Women's Health Obstetric and Neonatal Nurses (AWHONN)
Iowa Healthcare Collaborative
Iowa Hospital Association
Iowa Insurance Division
Iowa Medicaid Enterprise, Medicaid Director
Iowa Medicaid Managed Care Organization, Amerigroup, Medical Director
Iowa Medicaid Managed Care Organization, Iowa Total Care, Medical Director
Iowa Medical Society
Iowa Primary Care Association
Iowa Association of Neonatal Nurses
LaClinica de la Esperanza
State of Iowa Legislators
March of Dimes
MercyOne Health Network
Maternal Mortality Review Committee
University of Iowa, OB/GYN faculty at Carver College of Medicine
Iowa Department of Human Rights, Office on the Status of Women
Genesis Medical Center, Policy Specialist
Iowa Maternal and Child Health Advisory Council
Unity Point Health
University of Iowa Hospitals and Clinics

This dynamic group of individuals shared their collective knowledge of the healthcare challenges faced by women, their families, health care providers, and hospitals from preconception through post-delivery. Additionally, their knowledge of the changing healthcare workforce and rural populations led to highly productive workgroup discussions in the afternoon.

This report provides a detailed description of the collaborative exchanges held at the summit with the goal that the information provided will be shared broadly. Additionally, this report will be utilized by the Iowa Maternal Quality Care Collaborative (IMQCC) to develop a strategic statewide plan to guide, monitor and improve obstetrical care in Iowa.

Glossary

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.

Assisted reproductive technology: medical procedures used primarily to address infertility. It includes all fertility treatments in which both eggs and embryos are handled. In general ART procedures involve surgically removing eggs from a woman's ovaries, combining them with sperm in the laboratory, and returning them to the woman's body or donating them to another woman.

Maternal Mortality Rate: Reported in death rate/100,000 live births.

Maternal Mortality Ratio: The number of deaths of a woman while pregnant or within 42 days of termination of pregnancy, regardless of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes, per 100,000 live births. (World Health Organization and National Center for Health Statistics)

Maternal Mortality Review Committee (MMRC): A committee that convenes at the state or local level to comprehensively review deaths of women during or within a year of pregnancy.

Maternal Mortality Review Information Application (MMRIA): is a standardized maternal mortality data system available from the Center for Disease Control (CDC) to support essential review functions of state maternal mortality review committees. MMRIA is designed to support and standardize data abstraction, case narrative development, documentation of committee decisions and routine analysis.

Pregnancy-associated deaths: The death of a woman while pregnant or within one year of the end of the pregnancy, regardless of the cause. These deaths make up the universe of maternal mortality; within that universe are pregnancy-related deaths and pregnancy-associated, but not related deaths.

Pregnancy-related deaths: The death of a woman during pregnancy or within one year of the end of pregnancy, from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy.

Pregnancy-related Mortality Ratio: pregnancy-related deaths per 100,000 live births.

Preventability: a death is determined to be preventable if the MMRC determined based on the case summary that there was "some chance" or a "good chance" to alter the outcome. Deaths with no chance to change the outcome are determined not preventable.

Safety bundles: a concept introduced by the Institute for Healthcare Improvement (IHI), a bundle is a structured way of improving care processes and patient outcomes. Safety bundles do not introduce new guidelines but are built upon established best-practices. They are designed to collate a critical set of processes based on existing guidance, tools, and resources that have been developed by trusted

organizations. The safety bundles are designed to be universally implementable and able to be consistently used across disciplines and settings.

Weathering: a kind of toxic stress triggering the premature deterioration of the bodies of African-American women as a consequence of repeated exposure to a climate of discrimination and insults. The weathering of the mother's body could lead to poor pregnancy outcomes, including the death of her infant.

Venous thromboembolism: a condition in which a blood clot forms most often in the deep veins of the leg, groin or arm and can travel in the circulation, lodging in the lungs (known as pulmonary embolism).

Obstetrician and Gynecologist: Obstetricians and gynecologists are physicians who have completed an accredited program of graduate medical education and possess special knowledge, skills and professional capability in the medical and surgical care of women related to pregnancy and disorders of the female reproductive system.

Critical Access Hospital (CAH): a designation given to eligible rural hospitals by the Centers for Medicare and Medicaid Services (CMS). The CAH designation is designed to reduce the financial vulnerability of rural hospitals and improve access to health care by keeping essential services in rural communities. One of the benefits of a CAH designation is cost-based reimbursement from Medicare.

List of Acronyms

AMCHP……Association of Maternal & Child Health Programs

IDPH ..... Iowa Department of Public Health

IMQCC……Iowa Maternal Quality Care Collaborative

MMRC……Maternal Mortality Review Committee

MMRIA (pronounced “Maria”)……Maternal Mortality Review Information Application

CDC……Center for Disease Control

VTE……Venous thromboembolism

ART……..Assisted reproductive technology

CMQCC……..California Maternal Quality Care Collaborative

LoMC……Levels of Maternal Care

OB/GYN……..Obestetrician-Gynecologist

Iowa OB Summit

About the Day

Summit speakers discussed the top health challenges for Iowa women including the health of women before pregnancy, in the weeks and months following birth, in labor and delivery care, and challenges with systems of maternal healthcare including OB workforce and rural hospitals closing their obstetrical units. Speakers were encouraged not to provide solutions, rather to provide a summary of the main health challenges. In the afternoon, summit attendees self-selected into one of three facilitated discussion groups led by nationally trained facilitation staff from the Association of Maternal & Child Health Programs (AMCHP).

Each facilitated discussion group was asked the following questions:

- What additional challenges do you see in your work or community that you'd like to add to those shared by the speakers or in the discussion that followed?
- What individuals or organizations are critical to understand these challenges, but who are not engaged at this time?
- What challenges, if solved, are most impactful?

Summary findings of the facilitated discussion groups are on page 18- 23 of the report.

Presentation Summaries

Health Challenges- Preconception and Post Delivery Care:

Stephen Pedron, MD, MBA, Unity Point Clinic, Maternal Fetal Medicine, Cedar Rapids

Dr. Pedron opened his presentation by posing the question "What are the pre-pregnancy and postpartum factors that contribute to maternal mortality?" He suggested they include obesity, diabetes, advancing maternal age, heart disease, hypertension, venous thromboembolism (VTE), infertility (assisted reproductive technology (ART), and multiple gestation), and increase in substance use including increased tobacco use and alcohol use, cannabis, methamphetamine, and opiates. He noted that women also struggle with mental health including anxiety, depression, bipolar disorder, personality disorders, post-traumatic stress disorder and eating disorders.

Dr. Pedron posed the idea "If we are to understand maternal mortality clearly, we must understand what is being measured, we must monitor trends consistently, and terms must be well-defined and understood by everyone involved." Definitions of important terms included Maternal Mortality Rate, Maternal Mortality Review Committee, Maternal Mortality Review Information Application, Pregnancy-related deaths, and Pregnancy-associated deaths and Preventability (See Glossary of terms on page 7-8 for definitions of these terms). He reiterated that one problem nationally, and internationally, is these definitions have not be used consistently leading to confusion when data is reported.

Dr. Pedron stated maternal mortality rates in the United States are currently a focus because not only is the United States behind developed countries like Norway, Israel, Poland, Italy, Germany, Denmark, Sweden, Canada, and the UK, but it is also behind countries with much higher poverty rates and less developed countries like Slovak Republic, Chile, Hungary, Turkey, Latvia and Mexico. Almost every

reporting country is decreasing their maternal mortality rates, while rates in the United States and Iowa are increasing.

Dr. Pedron described the importance of acknowledging the enormous racial and economic disparity in these rates. Women of color and women who are economically disadvantaged are experiencing the worst perinatal outcomes. He discussed the concept of weathering from Dr. Arline Geronimus, a professor in the Department of Health Behavior and Health Education at the University Of Michigan School Of Public Health, whom linked stress and black infant mortality with the concept of "weathering" as a form of toxic stress. Dr. Geronimus argues that toxic stress triggers the premature deterioration of the bodies of African-American women as a consequence of repeated exposure to a climate of discrimination and insults. The weathering of the mother's body could lead to poor pregnancy outcomes, including the death of her infant. Dr. Pedron aligned the notion of weathering with a recent Committee Opinion from ACOG on the social determinants of health which includes social, structural, economic, political, and environmental factors that contribute to differential access to health care and to inequities in health outcomes.

Dr. Pedron encouraged the practice of better listening to women as women are telling us they want a supportive care team, respectful treatment and supportive mental health services. Dr. Pedron argued one way a provider can provide comprehensive care is to be inclusive of the mother's values and opinions about her care. He also encouraged utilization of One Key Question® asking women "Would you like to become pregnant in the next year?" Addressing pregnancy intention allows a woman the opportunity to choose the timing of her next pregnancy that is best for her, providing an opportunity to manage any chronic health problems she may have.

Dr. Pedron elaborated on the systemic barriers to moving the needle on maternal mortality in the United States, identifying the following:

- The United States (US) does not have universal access to quality health care.
- The US lacks uniform, high quality, low cost heath care coverage.
- The US does not have a National Health Service delivery model.
- There is nominal national healthcare investment in spite of high per capita healthcare expenses.
- The US needs better coordination of resources; and
- The US healthcare infrastructure is immature yet growing; funding is tedious, cumbersome and uncertain.

An example of a promising practice from within the United States comes from the State of California. California linked public health surveillance to action steps, mobilized a broad set of public and private partners to work collaboratively, established a low- burden, rapid-cycle data system to support improvement efforts, and implemented multiple partner, large-scale interventions that integrated clinical providers with public health services. **California's Maternal Mortality Rate is 4.5/100,000 live births**. As a result of the work done in California, the Alliance for Innovation on Maternal Health (AIM) is able to provide access and support for hospitals to implement safety bundles that are modeled after California's Maternal Quality Care Collaborative. 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. The goal of AIM is to

eliminate preventable maternal mortality and severe morbidity across the United States. AIM works through state teams and health systems to align national, state, and hospital level quality improvement efforts to improve overall maternal health outcomes. Safety bundles are a concept introduced by the Institute for Healthcare Improvement (IHI). A bundle is a structured way of improving care processes and patient outcomes. Safety bundles do not introduce new guidelines but are built upon established best-practices. They are designed to collate a critical set of processes based on existing guidance, tools, and resources that have been developed by trusted organizations. The safety bundles are designed to be universally implementable and able to be consistently used across disciplines and settings. More information on safety bundles is available at https://safehealthcareforeverywoman.org/

Dr. Pedron closed his presentation by suggesting that the most common causes of pregnancy-related deaths in Iowa can be addressed through the implementation of AIM safety bundles. The social and economic causes of death, however, are more difficult to address. Contributing factors for these maternal deaths were influenced by language barriers and literacy, malnutrition, unstable housing, domestic abuse, and trauma (i.e., assault, gun violence, and motor vehicle accidents) and are driving the differential distribution of risk factors. In the majority of the motor vehicle accidents, women were not wearing seat belts, so improved patient education could be helpful. Access to care issues include under-insurance or no insurance, limited rural resources, per capita provider ratios, and access to family planning. In addition, system, social, policy, capital allocation, coordination of resources and best practice buy-in from stakeholders are all barriers to optimal care for women.

Health Challenges- During Pregnancy, and Labor and Delivery:

Stephen Hunter, MD, PhD, Professor at the University of Iowa and Carver College of Medicine Faculty, Vice Chair, Department of Obstetrics & Gynecology, Associate Director, Statewide Perinatal Care Program

Dr. Hunter opened his presentation by showing a video clip of Apollo 1 and how this can relate back to labor and delivery in that it is just another day, “until it isn’t.” Maternal and obstetrical emergencies can and do occur, often without warning, and preparedness is vital. Maternal mortality rates worldwide in both developed and developing regions have decreased in the past two decades, while in the United States, they have risen by 136% (World Health Organization). Additionally, Dr. Hunter discussed the impact of severe maternal morbidity (i.e., shock, acute respiratory failure, pulmonary embolism, respiratory distress syndrome, acute myocardial infarction, blood transfusion, aneurysm, cardiac surgery) and its increase over the past two decades.

The presentation transitioned into the impact of modern healthcare and its complexities on health outcomes for women. Complexities described include highly complicated technologies, powerful drugs, widely differing professional backgrounds, unclear lines of authority, highly variable physical setting, unique combinations of diverse patients, communication barriers, widely varying care processes and time pressured environments. Additional challenges were identified as hospitals closing their obstetrical units, increasing patient acuity, maintaining staff competencies, and financial concerns.

Dr. Hunter elaborated on the significance of both hospital, and labor and delivery unit closures across the state of Iowa. He referenced a survey sent to hospital CEOs of all 93 (current and closed to OB

service) Level I hospitals to gain perspective on why they do or do not provide perinatal care. The survey found that the most significant reasons for closure of perinatal services in Iowa included the inability to recruit and retain physicians willing or able to provide OB care, concerns regarding quality of OB care, medical-legal concerns, and the financial non-profitability of the units. These findings were addressed in the context of decreasing numbers of births in Iowa, unplanned out-of-hospital births, the distance and driving time needed to obtain perinatal care for both urban and rural settings and how this impacts maternal transfer rates and unplanned out-of-hospital births.

Dr. Hunter detailed the changes to both how obstetrical care is performed (increases in elective procedures and available assessment tools and medications), to the health status (increases in morbid obesity, advanced maternal age) and socioeconomic status, as well as increases in drug and alcohol use in pregnant women in Iowa and nationally. He also discussed the increase in the number of women admitted to the intensive care unit (ICU) from the labor and delivery unit, descriptions of increasing postpartum hemorrhage, as well as a breakdown of cesarean section rates were then presented. Dr. Hunter stressed that "the most effective approach to reducing overall morbidities related to cesarean delivery is to avoid the first cesarean delivery."

The next challenge presented to providing safe, quality obstetrical care across the state of Iowa is the financial challenge of keeping a unit open and running in a financially sound manner. He described the difference in reimbursement rates between the various types of insurance in Iowa and how they have worsened, even from 2017-2018 (Commercial Insurance as well as Medicaid).

Dr. Hunter then focused his presentation on what can be done to begin to address the challenges to providing quality, safe care to mothers and infants across the state. He discussed how our current system focuses too much on minimizing litigation associated with adverse events, when in fact, the system needs to have a plan in place to react to the adverse event immediately, before it becomes an adverse outcome.

One way to ensure comprehensive, accurate education is through simulation-based learning. A second way to improve safety and quality care across the state is to "institute levels of maternal care (LoMC) program in all Iowa hospitals." This would help to achieve the following outcomes:

- Standardized definitions and nomenclature for facilities that provide each level of maternal care.
- Consistent guidelines according to each level of maternal care for use in quality improvement and health promotion.
- Equitable geographic distribution of full-service maternal care facilities and systems that promote proactive integration of risk-appropriate antepartum, intrapartum, and postpartum services.
- Uniform designations for levels of maternal care that are complementary but distinct from levels of neonatal care (ACOG, 2019).

The final suggestion Dr. Hunter provided was to start creating safer labor and delivery experiences for women across the state of Iowa through the use of maternal safety bundles to ensure quality, consistent care for all patients. This work is supported by the ACOG and is particularly important because there may be many appropriate ways to treat a condition, however we work in teams and have changing team members; in an emergency, treatment needs to be consistently used across disciplines and settings.

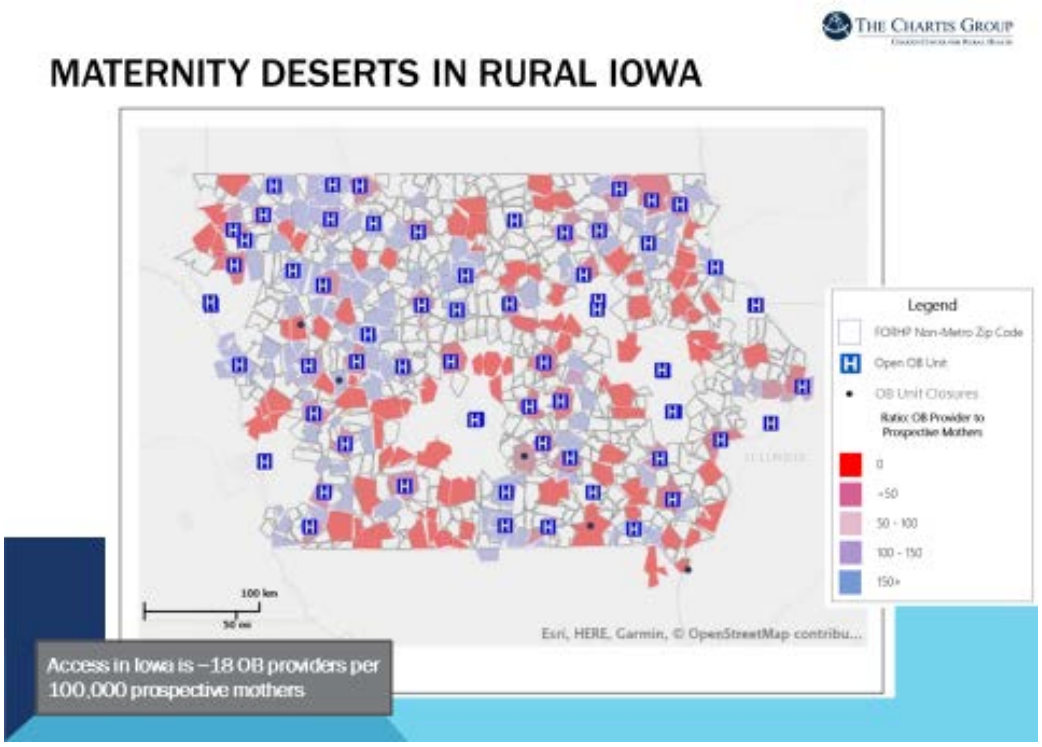
Obstetrical Workforce and Health System Challenges for Iowa:

Marygrace Elson, MD, MME, Clinical Professor, University of Iowa and Carver College of Medicine Faculty, Vice Chair for Education, Residency Director, Department of Obstetrics & Gynecology

Dr. Elson opened her presentation with an overview of the types of medical providers providing labor and delivery services across Iowa. She reported that one-third of births are in rural settings and generally, family practice providers deliver more babies in rural areas, while OB/GYNs and midwives deliver more in urban settings. Overall in Iowa, 16% of births are attended by a family practice provider. The most recent report shows that the number of family medicine providers, graduating from University of Iowa Hospitals & Clinics (UIHC) affiliated programs, who plan to deliver babies, has halved in the past twenty years, meaning only 20% of family medicine graduates report planning to deliver babies as part of their practice, mirroring national trends. Additionally, she reported that Iowa ranks last in the nation for number of OB/GYN providers/10,000 women.

Dr. Elson described the current demographics and provider workforce distribution as well as the changing makeup of the medical doctor workforce, specifically highlighting the decrease in family practice/general practice/primary care and the increase in providers with specialties.

Dr. Elson described current characteristics of maternity care in the rural U.S. and Iowa including: the dramatic decrease in rural hospitals providing maternity care services and the subsequent increase in distance pregnant women have to travel for care, and the increasing incidence of chronic conditions, poverty and travel barriers putting pregnant women at risk for higher incidence of unplanned out-of-hospital birth and other pregnancy complications. The following map was used to describe the availability to obtain maternity care from an OB/GYN provider in Iowa.



Dr. Elson described why maternity units across the country, and Iowa, are closing including the lack of provider coverage, providers' inability to keep up on skills and the reduced volume of deliveries leading to decreased revenue which leads to an inability to fully staff a unit. According to the Wisconsin Office on Rural Health, the threshold to keep a maternity unit open is 100 births per year. Currently in Iowa, 11 of the remaining 63 birthing hospitals deliver less than 100 babies per year. Economic hardships related to operating a maternity unit in a hospital with a low volume of deliveries, low Medicaid reimbursement rate for deliveries, and high numbers of Medicaid deliveries results in low revenue and the high cost of medical liability due to there not being a cap on non-economic damages in Iowa as compared to surrounding states who have a hard cap. Additionally, she commented on the compounding factors of the decline of the American small town and the economic changes that result from declines in industry and population, as well as the increasing cost of becoming a medical provider.

Workforce and Health System Challenges from a Rural Perspective: Expert Panel

- *Jim Atty, FACHE, MBA, MHA, Chief Executive Officer, Waverly Health Center, Waverly*
- *Douglas Morse, MBA, MHA, Chief Executive Officer, Hansen Family Hospital, Iowa Falls*
- *Dr. Joel Wells, DO, Family Practice Physician and Jill Henkle, RN, OB Manager, Wayne County Hospital, an affiliate of MercyOne, Corydon*

To gain perspective on what rural healthcare providers and administrators are experiencing in the field, a panel of experts was convened to share their experiences. Panelists' stories were full of passion for the

women and children they care for, as well as, how important it is that maternity services continue to be available for their communities.

Jim Atty, CEO of Waverly Health Center (WHC), opened the expert panel with a description of his hospital which included the size (25 beds), that it was an independent (not health system-owned) Joint Commission Accredited hospital, serving Bremer, Butler, Chickasaw, Floyd and Black Hawk counties. Within those five counties, they have a service area of about 55,000 people with a variety of health care needs. WHC has very high ratings as a health center, with lots of community support. Within their OB/GYN services, they have five total providers who provide a combination of clinical and comprehensive perinatal services, delivering 258 babies in 2018 and providing 8,500 clinic visits. While they are committed to keeping their OB services going, he described the challenges they experience. One of the most pressing issues is the financial impact of providing obstetrical services. Critical Access Hospitals (CAH) are poorly reimbursed for maternity services. Additionally, Medicaid reimbursement rates for obstetrical services are not high enough to cover the cost of the services, and they currently operate their clinic at a loss. Another challenge to providing obstetrical care is the staffing requirements. It is hard for them to stay fully staffed and keep that staff adequately trained. Despite these challenges, Jim stressed the importance of continuing to provide these services because it "allows families to grow in Waverly" and "providing a full range of services is what is best for their employees."

Douglas Morse, CEO of Hansen Family Hospital (HFH) in Iowa Falls, opened his presentation with a description of what they did to determine if they were going to close the maternity services at their hospital. Hansen Family Hospital is a municipal hospital that serves a community with an aging and shrinking population (population decreased by 21.7% from 1980 -2017). A new hospital was opened in 2014, and they receive no tax support for the services they provide. In the fall of 2018 they had one family practice physician providing 75-80% of the deliveries; the other 25% of the deliveries were performed by two other family practice physicians and a nurse midwife. The hospital averaged 86 deliveries per year over the past five years. HFH had an OB/GYN provider who visited the clinic every two weeks from Mason City. At this point, HFH determined the need for an in-depth study of how they could continue to provide maternity services to their community. They committed to 90-day discernment process. HFH evaluated opinions of the medical staff, hospital leadership and the community regarding maternity services. Data was collected in a fair process that accurately described the facts, including the financial implications of continuing maternity care. Through this extensive process, HFH determined that the best approach to providing care for their community included a system of shared care where mothers received their prenatal care primarily locally, but went to a larger birthing facility in another town to deliver, and were still able to obtain their postpartum care in their local community. HFH began this process of "Share Care" in November of 2018. Since that time, they have been able to recruit two new family practice providers, a majority of moms return to Iowa Falls for care for their newborns, and they have redirected $500,000 to senior mental health, a new primary care clinic, and general surgery efforts. Their hospital has been profitable for the past five months. The "Share Care" model isn't without its challenges. HFH had to do extensive patient education as to where they can deliver their babies, they have seen impacts on the Emergency Room with related OB visits, and providers and patients have had to learn a new referral process.

Dr. Joel Wells of Wayne County Medical Center (WCMC) is board certified in Family Practice and is the Departmental Chief of Service for Cardiac Rehab, Health Information Management, Obstetrics, Pediatrics, and QA/QI Infection Control. He has been instrumental in starting and lending his support for

the Des Moines University Family Practice Medical Student Residency Program where he teaches students aspects of rural family medicine through the development of a Mercy Rural Family Medicine Residency Program at Wayne County Medical Center in 2016, with the focus on obstetrics and surgical skills for practicing rural family medical providers in medical health professional shortage areas.

Dr. Wells discussed how these programs were critical in recruiting family physicians to join their practice.

Jill Henkle, Nurse Manager at Wayne County Medical Center, presented a rural hospital nurse manager perspective. Wayne County is in southern Iowa and shares its southern border with Missouri and is surrounded by county hospitals that have closed their OB service. The closest birthing hospital is 65 miles away so patients come from a 60 to 80 mile radius for their prenatal and labor and delivery care. Almost 37% of their hospital's births are covered by Iowa Medicaid, 3% by Missouri Medicaid and 3% are self-pay, and they deliver around 200 infants per year.

Ms. Henkle described what it takes to keep their OB services operating. The hospital employs three family physicians (two are trained to do C-Sections), one OB/GYN physician who does not do deliveries but will do C-sections, and one Certified Nurse Midwife. Anesthesia services are all provided by Certified Registered Nurse Anesthetists. The hospital has two general surgeons. Nursing staff consists of 28 medical/surgical nurses; 17 have been trained in OB, and three are currently in training. Orientation training for OB takes four months. There must be an OB trained nurse in the hospital at all times. The hospital has an 18% turnover rate for registered nurses.

Ms. Henkle described what they do to retain nurses with the recent development that one of the two nursing education programs in their area is closing. To maintain nursing staff, they provide a sign on bonus, pay the same wages as urban areas, and nurses work every third weekend similar to most urban hospitals. Their hospital utilizes a variety of resources to support their work, including Affinity Group from MercyOne Des Moines which provides obstetrical nursing and provider education, Unity Point Outreach that supports neonatal education to their nursing staff, the Statewide Perinatal Program that provides educational support and consultation to providers and nurses, to ensure comprehensive care for mothers and infants, if the OB care provider determines a mother or the fetus is high-risk, they are referred to a hospital or prenatal care provider with more resources. Internally, they provide ongoing nursing education, bi-annual skills lab and have implemented safety bundles and simulation lab for emergent C-Sections.

Afternoon Facilitated Discussion Summaries:

In the afternoon, staff from the Association of Maternal & Child Health Programs (AMCHP) guided meeting participants through facilitated discussions to deepen their knowledge of one another and their respective perspectives on OB care in Iowa, and to explore and reflect on the content that was shared during the morning presentations. The breakout groups were formed to be consistent with the structure of the morning. Summit attendees self-selected into one of three groups:

- **Prenatal and Post-Delivery Care:** This group was facilitated by Kristina Wint, MPH, Program Manager for Women's Health, AMCHP
- **OB Hospital/Labor and Delivery Care:** This group was facilitated by Andria Cornell, MSPH, Associate Director of Women's and Infant Health, AMCHP
- **OB Workforce and Health System Challenges:** This group was facilitated by Theresa Chapple-McGruder, PhD, MPH, Associate Director of Workforce and Capacity Building, AMCHP

Each breakout discussion utilized flip-chart paper to capture group reflections and decisions just-in-time, and the structure focused on enhancing connectivity across participants. Special care was given to ensuring each participant felt welcome, heard, and included.

Prenatal and Post-Delivery Care Breakout Discussion

The participants began the breakout session with a few key questions in response to the panel presenters. First, they pondered whether the general public, and stakeholders outside of direct care delivery, understand the seriousness of the current state of obstetric care in Iowa. The participants were referring to the severe lack of pregnancy-related providers and care sites across the state. Participants expressed shock and concern that in 1985, 24% of Iowa counties lacked obstetric services, compared to 54% today. They expressed the need for support services outside of maternity care providers, such as home visiting, but a participant shared that to their knowledge, only 20% of home visiting 'slots' are filled prenatally. The group considered the importance and impact of in-home services but acknowledged that a lot of work may need to be done directly with community stakeholders to build the trust required for a home visitor to be welcomed into the home. Additionally, in reflecting on the morning's presentations, participants acknowledged that the people and communities most affected by lack of services were not represented among the panels, both in terms of racial diversity (e.g. all panelists were White) and profession (e.g. no home visitors, doulas, or other health professionals were included). Without the representation of individuals most impacted by a lack of services, or the individuals directly serving these individuals in their communities, it is difficult to name and prioritize root causes of disparities across populations, including as they relate to implicit or explicit bias in care interactions or the weathering effect of racism on women of color.

When the facilitator asked the group to reflect on new concepts they learned from the presentations, the group shared a common interest in the "Share Care" model developed in Iowa Falls. This model was attractive not just because it allowed mothers to receive prenatal and postpartum care in their community, but also because of the public discernment process they underwent to engage the community in the decision to close their birthing facility. Furthermore, the group expressed interest in the regional approach to education across hospitals, with individuals less aware that this was a support that higher level hospitals should be providing. However, the participants acknowledged that much of

the content shared during the morning presentations wasn't a surprise. The topics that felt "same-ol, same-ol" to them included that 1) rural access to care is an ongoing issue that is getting worse and is exacerbated by workforce shortages; and 2) broken health care financing approaches are creating scenarios where providers and health systems are losing money on meeting care standards and different payer types or coverage lead to differences in the care and outcomes.

These topics pushed participants to consider some challenging questions, which if answered, could be impactful:

- How can we move to a more flexible/responsible payment model that reimburses providers and care sites for the cost of services and invests in prevention?
- How can technology be used as a solution for better access to care in rural areas?
- What are the reasons for the decline in family practice doctors providing obstetric and gynecological services? How do we increase the number of midwives providing care?

To conclude the discussion, the participants reflected on the information that was missing from the morning presentations and the key stakeholders that must be engaged to learn this information. First, participants acknowledged that there was little discussion on what was termed the "Before" of maternity care or the context in which families live. For example, understanding the social determinants of health and how social risk factors shape how individuals, families, and communities interact with the health care system is essential – these challenges transcend across different levels of care, not just pregnancy care. For this reason, solutions to improve care must be trauma-informed and inclusive of multiple levels of trauma (e.g. historical trauma, physical violence, adverse childhood experiences), must incorporate behavioral and mental health care inclusive of substance use, and embed education for providers on cultural humility. The group also wanted to identify care solutions based on a definition of the "best care" as defined by the patients and actual experiences in different systems. Furthermore, participants wanted a "Problem Czar" identified – an organization or agency that is connecting systems, funding sources, and root causes and ensuring that partners know one another and are coordinated. Overall, the group felt that high impact solutions, ones that could solve problems for future generations, could be identified and implemented if they are started small, like a pilot.

OB Hospital/Labor and Delivery Care Breakout Discussion

The breakout discussion began with an exploration of the comments or ideas that truly jumped out to the participants from the morning's presentations. Participants were moved by a few key conclusions, including: 1) that the source of challenges in the labor and delivery context is largely financial (e.g. "follow the money," as one participant shared); and 2) education of health professionals plays a major role in the quality and safety of the care provided (e.g. "education is huge"). One participant summarized their realization through an analogy of a horse and a motorcycle: "I need to feed my horse every day, regardless if I ride it or not. My motorcycle only needs gas if I am going to ride it." He spoke to the importance of investing in the readiness of the system like a "horse" – lab, OR, nursing staff, surgeons need support, training, and other resources 24/7 – and that the financial burden of investing in this readiness is significant, irrespective of how often the system is used (e.g. if a hospital delivers a low volume or high volume of births). This pushed the participants to reflect on the importance of sharing resources and the educational role of Level III and beyond hospitals. In some cases, as shared during the morning presentations, sharing educational resources is working well; in others, it obviously is not, with

one participant recalling the outcome of a hospital survey indicating that 69% of hospitals indicated they did not have any educational support.

Participants explored ideas that were new or that begged new questions. The group collectively agreed that prior to the morning's panel, they hadn't considered the ripple effects that one hospital closure has on the neighboring community, including the increased demands on beds, rooms, and emergency medical services. These closures and their ripples effects can create environments of extreme stress and even trauma for providers. Additionally, participants reflected on how these decisions aren't necessarily based on what's best for the community or patients, but on finances. They acknowledged how a low Medicaid reimbursement rate may be driving much of these issues. The morning's presentations also begged the participants to ask key questions, like, "What happened to the broader discussion in the field about unbundling the global delivery fee?" and "Why should it be fair that a midwife be reimbursed at 85% of the rate of an OB for providing the same services?" Participants also acknowledged that family physicians don't get the same benefit by having midwives as partners as an OB/GYN would. Both the family practice physician and the midwives are focused on the care of normal, low-risk pregnant women. In an OB practice, the midwives can provide care for low-risk women while the OB/GYN would care for the high-risk women. Furthermore, participants acknowledged the aging health care workforce, and expressed concerns around succession planning. For example, when a valued and seasoned professional retires or leaves, it may take numerous people to fill the void of that lost knowledge/role.

The conversation concluded with a discussion of what was missing from the morning's discussion, or what needs further exploration. Comments focused in three areas in particular: 1) that a pipeline approach should be taken to staff shortages – beginning with education and engaging educational institutions beginning with recruitment, to support/education, and to retention; 2) that maternal health professionals and leaders want a better understanding of maternal health data in Iowa, including institutional data to understand bright spots and areas of improvement with respect to care and outcomes, and that these data should be centralized with an agency watching the big picture; and 3) that mothers need to be better placed at the center of discussions. To this last point, the group discussed the necessity of including moms' perspectives and that mothers, including young mothers, are navigating numerous complex challenges. This was especially highlighted in the maternal death data related to non-obstetric causes, including substance use and mental health.

The group agreed that the following challenges, if solved, would be most impactful:

- Providers and hospitals need more equitable, and at least adequate, reimbursement for quality care and services, which includes increased reimbursement for complex care.
- Hospitals that choose to keep their OB program open, in the face of significant financial strain, need unique supports and innovation in diversifying funding sources (e.g. Wayne County started a robotic surgery program that is helping to offset the financial loss of the OB program).
- Women want to stay in their communities and deliver safely; system of care changes should be designed to enable this, with an agency or organization with data on the 'big picture' facilitating supports.

OB Workforce and Health System Challenges Breakout Discussion

The breakout group focused on the obstetric workforce and the health system focused a great deal on how individuals within the workforce and collaborators work together, toward a common goal. When participants provided their first reactions to the content of the morning, a few individuals mentioned that they perceive different roles or systems working in silos. One participant said, "We need to get over ourselves" while another specifically mentioned a lack of collegiality. Common goals, like advocacy for people who birth, solving the rural care crisis, reducing maternal mortality and severe maternal morbidity generally, or even identifying and working toward minimum skills and competency in caring for pregnant people, could have a significant impact in bringing different health professionals and systems together. Participants expressed concern that actions in the state were happening "by default" as opposed to stakeholders putting their heads together and working toward this common goal. The participants did acknowledge the role of how care is financed as a source of perpetuating division: "it all comes down to money" and "[creating a system with] payers who pay" were comments provided as sources of the division.

Before proceeding with their discussion, the facilitator and the participants felt it was important to define the obstetric care workforce, or unified goals for the obstetric care workforce. The group identified the following mutually reinforcing goals:

1. Qualified health providers that provide the standard of care for the level they work.
2. The right people in the right place.
3. Each health professional is properly trained for what they do.
4. Each health professional is recognized for their contribution and feels respected in their position.
5. Each individual in the workforce is properly utilized.
6. Competition across networks is minimized.

The breakout group then turned their attention to more specifically identifying the barriers that exist for the workforce to provide optimal obstetric care for Iowans. The group focused their comments in a few key areas:

- **Training/retraining:** Participants discussed the cost of training health professionals, and the time investment of this training that in some ways can be conceived as "lost income." For example, nursing programs no longer require an OB rotation in school, leaving the burden to training to the OB unit in which they work. If a unit trains a health professional and then that individual leaves shortly after, that is a financial and time investment that is difficult to recoup. There is also a lack of willingness to mentor young professionals by more senior staff; there needs to be better support for doctors and nurses to support new staff, including very early career professionals. Related to maintaining skills and competencies, a unique approach and investment is required for low birth volume facilities, where it's particularly difficult for doctors and nurses to maintain critical skills.
- **Lack of state-supported pipeline:** The participants described that there are limited OB/GYN training opportunities in Iowa in general, with the University of Iowa maxed out with trainees. For this reason, Iowa residents leave the state to do their residencies, and there is no re-entry program that helps professionals find a place to train. Additionally, Iowa lacks a midwifery

program. Furthermore, there is not a cooperative approach to supporting rural care in Iowa. Participants explored the question of how to make practicing in rural Iowa more attractive and sustainable, including supporting small practices in small-town Iowa. They noted that fewer nurses are choosing acute care settings, and that there is a significant shortage of nurses in Critical Access Hospitals.

- **Quality of life:** Participants also described the need to simplify jobs while simultaneously not boxing individuals into roles. They spoke of the desire for work-life balance, for understanding and meeting the childcare needs of the workforce, and the transportation barriers the workforce experiences.

The discussion of challenges inspired prioritization of solutions, or actions, that if taken may be particularly impactful. This included a collaborative and multi-pronged approach to the rural health crisis and the maternity deserts in Iowa. For example, participants explored the coordination of a statewide discernment process with communities to consider how care is currently organized and resources allocated. One participant noted that "everyone is doing everything but hanging on by a thread because of it." Additionally, family medicine fellowships and residency funding could incentivize early career professionals to work in rural areas. Finally, participants explored what a "state relief force," could look like: diverse health professionals that could provide temporary or regular assistance to high need areas and to providers who decide to stay in their communities but need extra assistance. The solutions the participants discussed also focused on the training needs of the providers and the mix of providers available. Participants discussed the possible impact of building a CNM training program in Iowa or starting a medical school in the Quad Cities. They spoke of the essential nature of obstetrics training in residency and also continuing to build on the programs that emphasize obstetrics skills in family medicine. Overall they emphasized working together to creatively finance and increase the availability of training programs. Finally, the group discussed the necessity of tracking the impact on outcomes of hospital closures and of the changes or decisions made to change the landscape of care.

Breakout Discussion Summary

Through the breakout groups, participants placed the data and themes from the morning's presentations into the context of providing care on-the-ground. They were activated by the presenters and prompted to ask deeper questions about the forces shaping obstetric care in Iowa. Participants shared their perspectives with honesty and through reflecting on their own experience. The professional mix of the individuals in the room allowed for deeper causes to be identified, and in some cases, innovative solutions to be uncovered. However, participants also shared who they felt were missing from the OB Summit participants overall, and the voices they'd like to engage in future strategic planning efforts to ensure a complete picture and understanding of the challenges are identified. Overwhelmingly, participants wanted to be led by the wisdom and experiences of people who birth in Iowa, and who face the greatest challenges receiving accessible, culturally humble care. This need was identified most strongly in the Prenatal and Post-delivery Care breakout discussion and was further supported in the OB Hospital/Labor and Delivery discussion. Missing voices identified by the participants included:

Anesthesia

Doulas

Community-based organizations

Home visitors

Midwives

Domestic violence coalition(s)

Patients/Moms/Patient Advocates

Emergency Medical Services and Emergency Department Physicians

Payers/Managed Care Organizations

Legislators

Mental Health

Social Work

Lactation Specialists

Medical Schools

Hospital System CEOs

OB Nurse Education

Neonatology/Pediatrics

Participants left the OB Summit with common take-aways: 1) there are growing maternity deserts in Iowa, exacerbated by OB unit closures; 2) there is a need for a more responsive payment model that reimburses providers and care sites for the cost of services and invests in prevention; and 3) there is an influential role for the education and training of the current and future obstetrics workforce. This foundation of inclusive and honest discussion could pave the way for a collaborative approach to identifying solutions and taking action.

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