STATE OF IOWA DEPARTMENT OF
Health AND Human
SERVICES

Maternal Mortality

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2023 Family Planning Update

May 1, 2023

Learning Objectives

- Identify the leading causes of maternal morbidity and mortality in Iowa
- Describe 3 recommendations from Iowa's Maternal Mortality Review Committee to reduce preventable deaths
- Describe urgent maternal warning signs and tools that can help you support and educate postpartum patients to recognize and respond to these life threatening emergencies.

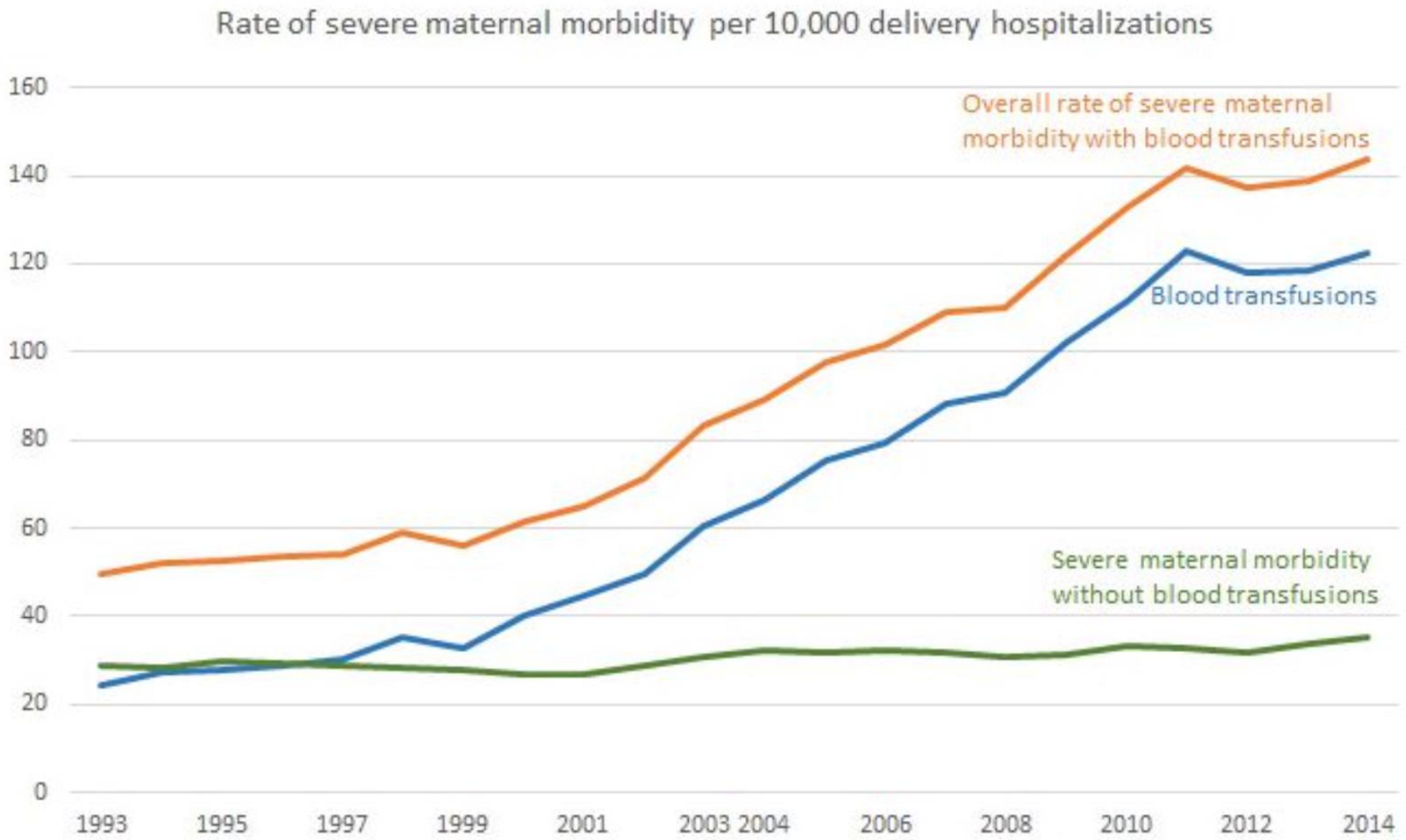
Maternal Morbidity & Mortality

Severe maternal morbidity using Iowa Hospital Discharge Data

Iowa hospital discharge data are collected by the Iowa Hospital Association on behalf of the Iowa Department of Health and Human Services in accordance with Iowa Code section 135.166.

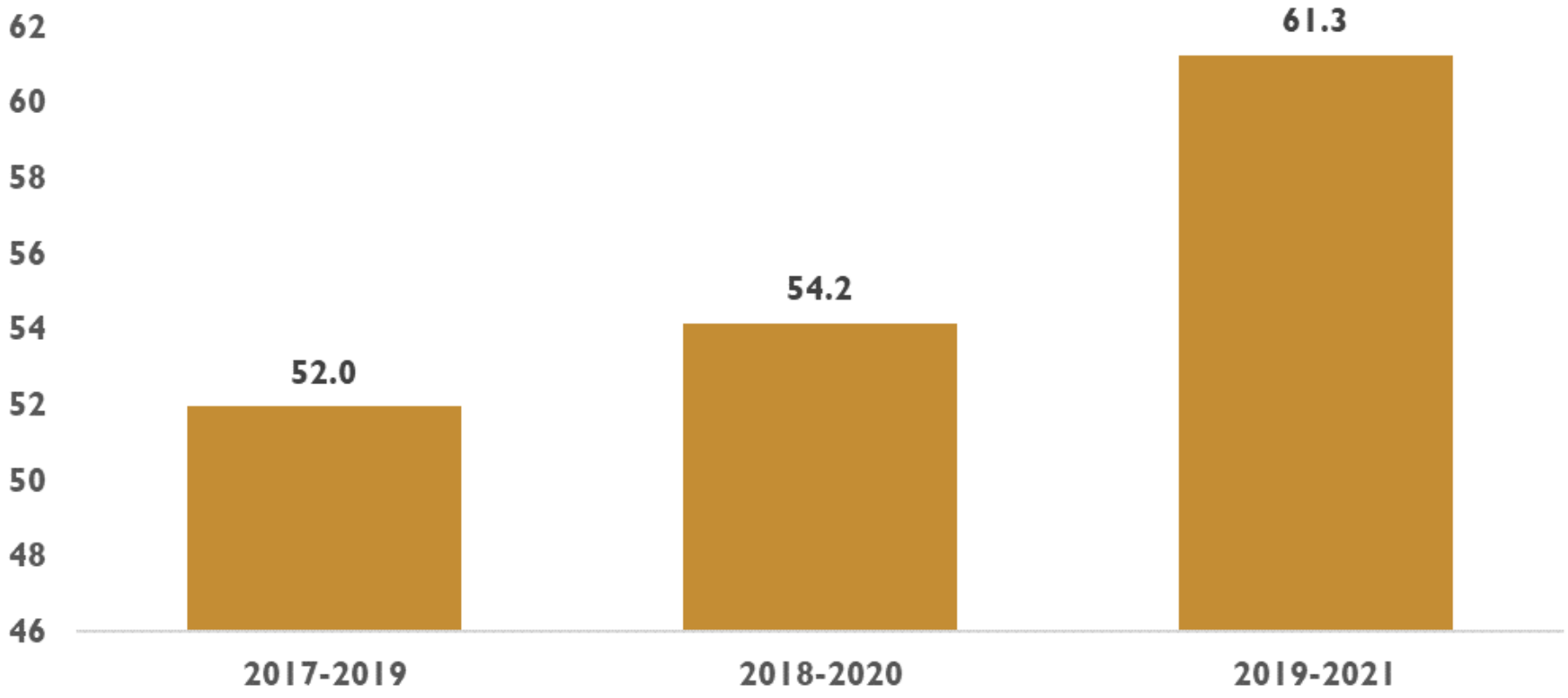
The Department may use these data to conduct public health surveillance and evaluate public health surveillance programs

National Trends in SMM



https://www.cdc.gov/reproductivehealth/maternalinfanthealth/severematernalmorbidity.html

Iowa's Severe Maternal Morbidity (SMM) rate has increased by nearly 18% from 2017-2019 to 2019-2021



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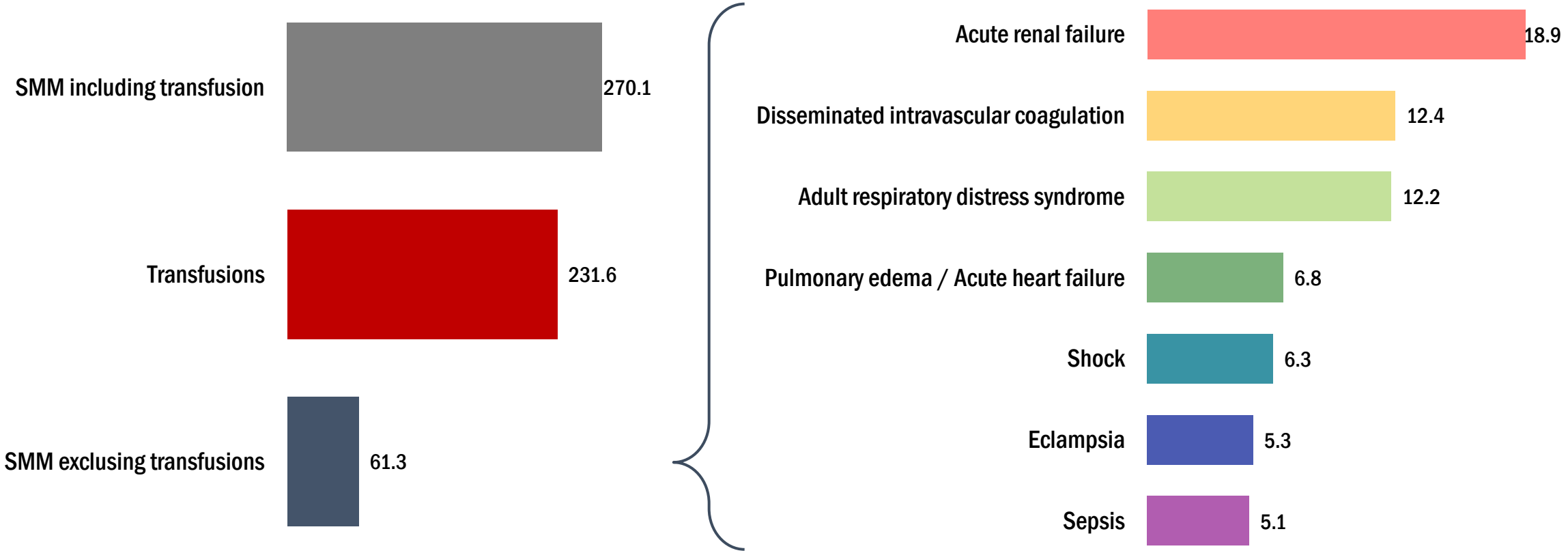
Receipt of a blood transfusion is the leading severe maternal morbidity (SMM) indicator in Iowa. Acute renal failure is the second most common indicator.

SMM cases per 10,000 delivery hospitalizations, 2019-2021 Iowa resident births.



Iowa hospital discharge data are collected by the Iowa Hospital Association on behalf of legacy Iowa Department of Public Health (IDPH) in accordance with Iowa Code section 135.166. The IDPH may use these data to conduct public health surveillance and evaluate public health surveillance programs. SMM case rates calculated by Dr. Debra Kane, Maternal Child Health Epidemiologist at Iowa HHS.

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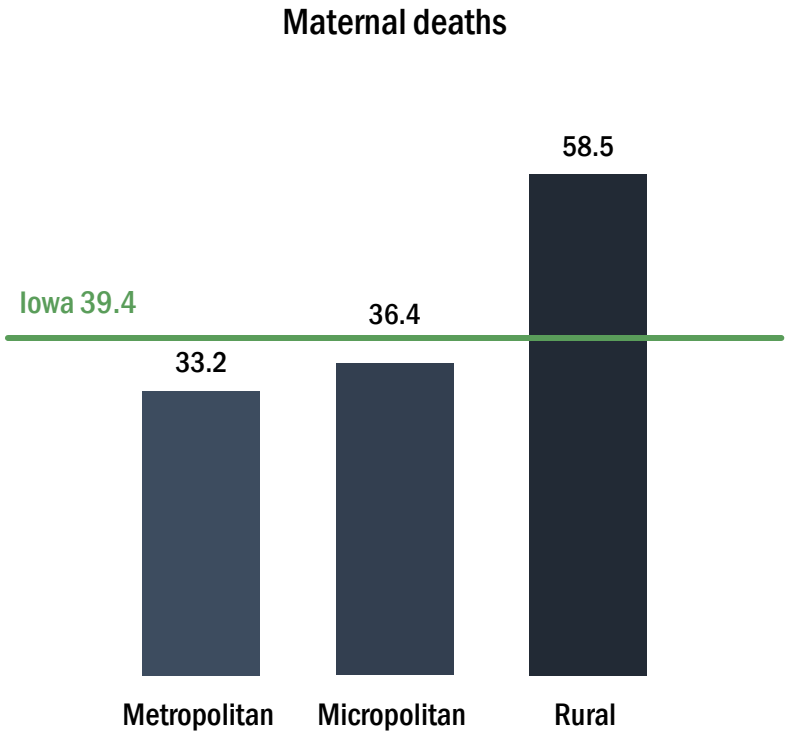
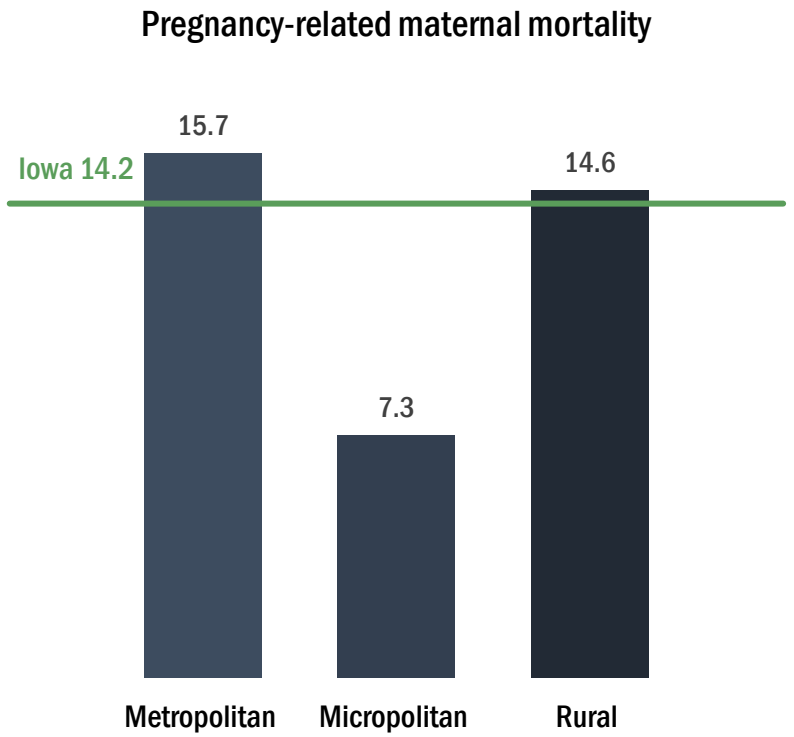
Rural residents have the highest rates of maternal deaths, but not pregnancy-related deaths, in Iowa between 2019 and 2021 (partial data).

Maternal death is the death of a person while pregnant or within 1 year of the end of pregnancy from any cause.

Pregnancy-related maternal mortality is death of a person while pregnant or within 1 year of the end of pregnancy from a pregnancy-specific cause.

Reported as cases per 100,000 live births.





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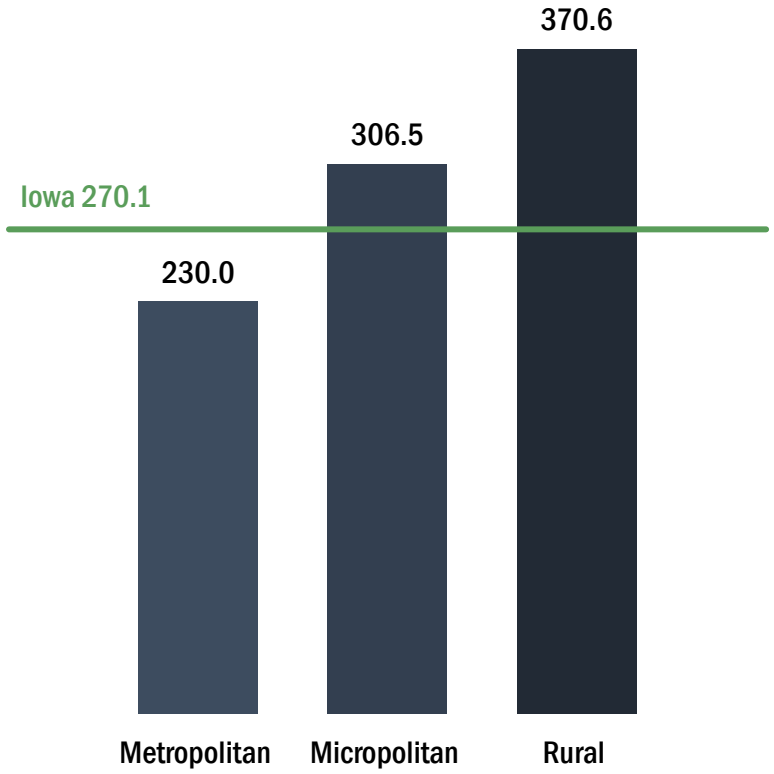
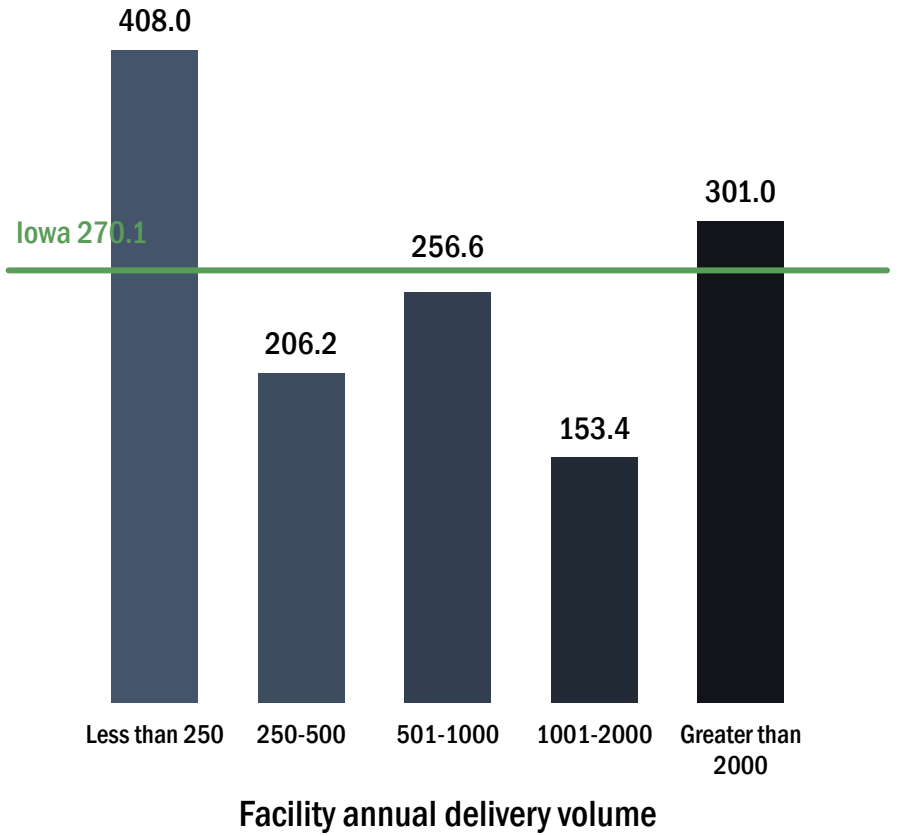
Data courtesy of Dr. Debra Kane and Stephanie Trusty RN, BSN Iowa HHS. Cases reviewed and classified by the Iowa MMRC.

Place of residence and delivery matter. Rural residents and those who deliver at the lowest volume facilities experience higher rates of SMM.

SMM cases per 10,000 delivery hospitalizations, 2019-2021 Iowa resident births.





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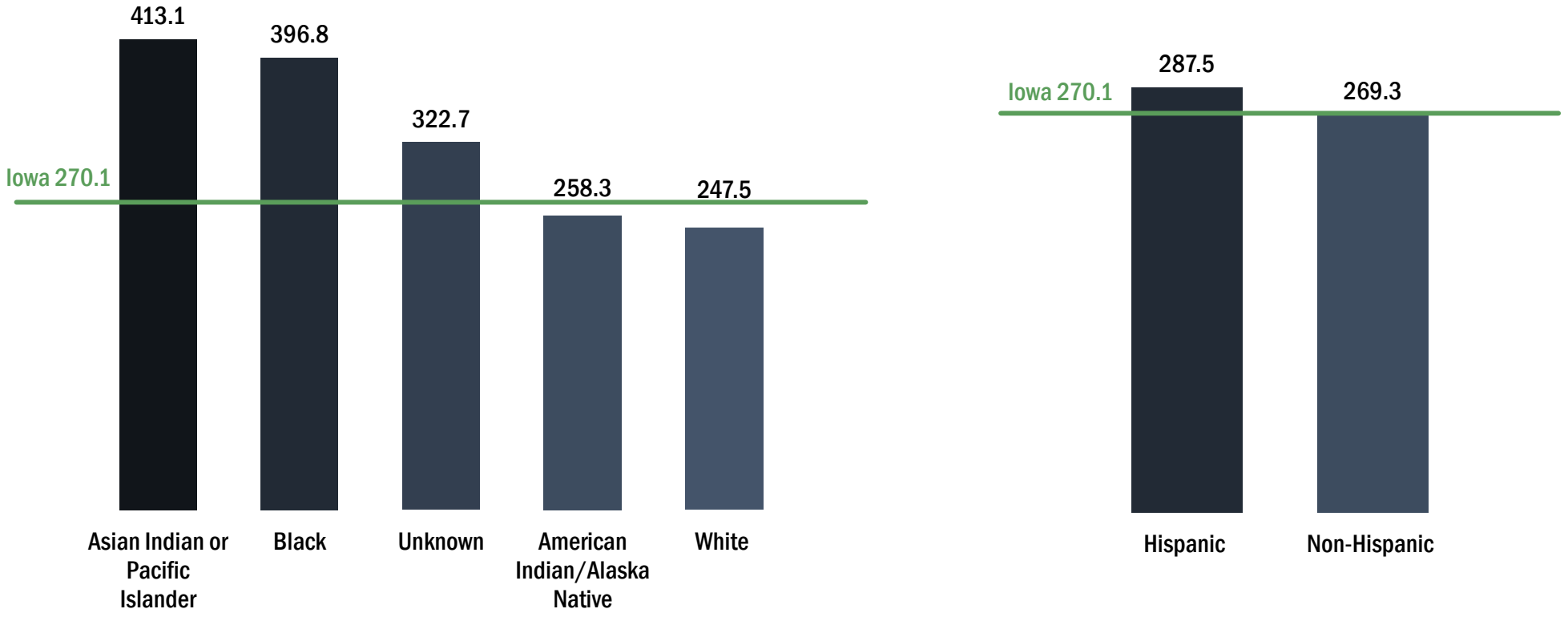
Asian, Indian, Pacific Islander, and Black Iowans experience SMM at much higher rates than White Iowans.

SMM cases per 10,000 delivery hospitalizations, 2019-2021 Iowa resident births.



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Severe maternal morbidity rate by complication groupings, by race and ethnicity, Iowa, combined years of 2018-2020

	State rate	Black women	Hispanic women	White women
Overall rate	54.2	**75.3**	56.8	49.2
Hemorrhage complications rate	20.5	**21.7**	17.7	19.6
Respiratory complications rate	8.2	10.2	**20.1**	6.5
Cardiac complications rate	5.5	**10.2**	5.9	4.6
Renal complications rate	15.6	**29.4**	5.9	14.0
Sepsis complications rate	4.2	**7.7**	4.7	3.6
Other Obstetrical complications rate	9.5	12.8	**16.6**	8.4
Other medical complications rate	2.4	**3.8**	3.5	1.9

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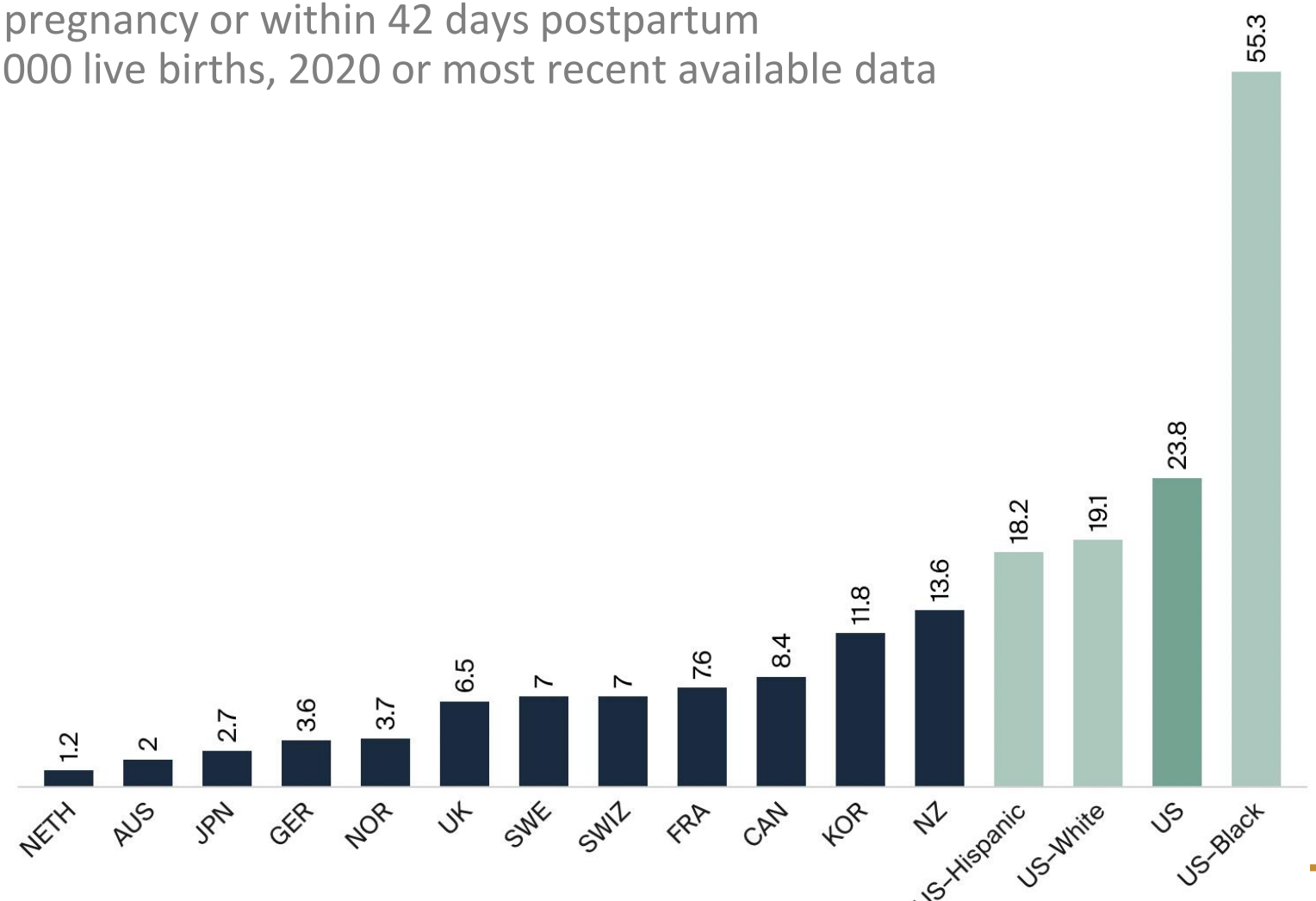
SMM complication groupings

- Hemorrhage complications conditions include (Black women) :
  - Disseminated intravascular coagulation, shock and hysterectomy
- Respiratory complications conditions include (Hispanic women):
  - Adult respiratory distress syndrome, temporary tracheostomy, and ventilation
- Cardiac complications conditions include (Black women) :
  - Acute myocardial infarction, aneurysm, cardiac arrest/ventricular fibrillation, heart failure/arrest during surgery or procedure, pulmonary edema/acute heart failure, and conversion of cardiac rhythm
- Renal complications conditions include (Black women) :
  - Acute renal failure
- Sepsis complications include (Black women) :
  - Sepsis
- Other Obstetrical complications conditions include (Hispanic women):
  - Amniotic fluid embolism, eclampsia, severe anesthesia complications, and air or thrombotic embolism
- Other medical complications conditions include (Black women) :
  - Puerperal cerebrovascular disorders and sickle cell disease with crisis

U.S. Maternal Mortality compared to other high-income countries

Deaths during pregnancy or within 42 days postpartum
Cases per 100,000 live births, 2020 or most recent available data



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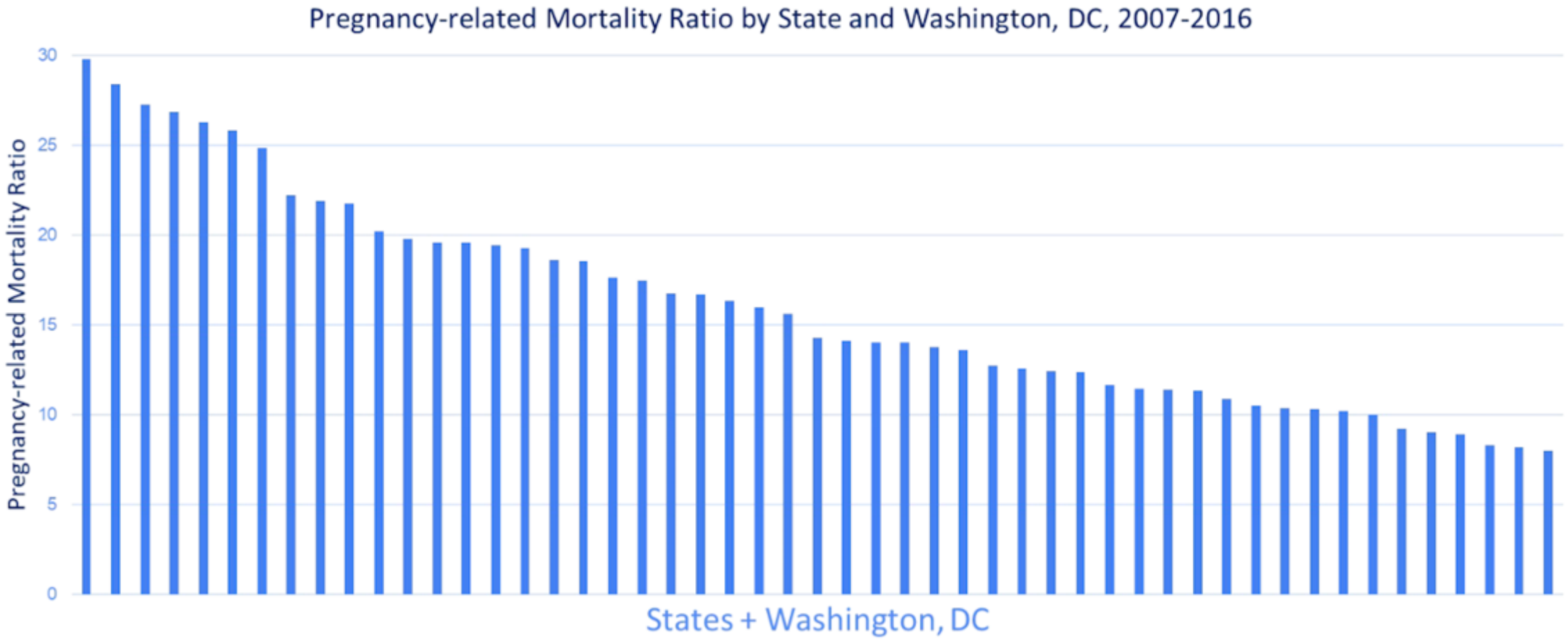
https://www.commonwealthfund.org/blog/2022/us-maternal-mortality-crisis-continues-worsen-international-comparison

State variation



Petersen EE, Davis NL, Goodman D, et al. Racial/Ethnic Disparities in Pregnancy-Related Deaths - United States, 2007-2016. MMWR Morb Mortal Wkly Rep. 2019;68(35):762-765. Published 2019 Sep 6.

Maternal Mortality Terminology

Pregnancy-associated death:

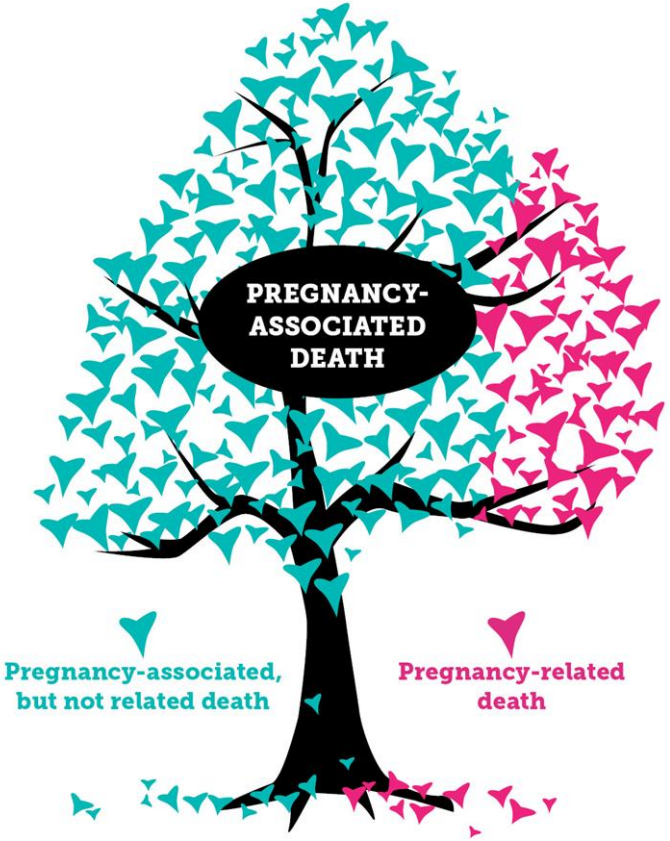
The death of a woman while pregnant or within **one year** of the end of pregnancy, irrespective of cause.

Pregnancy-related death:

The death of a woman while pregnant 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-associated but NOT related death:

The death of a woman during pregnancy or within **one year** of the end of pregnancy from a cause that is not related to pregnancy.



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Sourced from: MMRIA Facilitation Guide and Review to Action https://reviewtoaction.org/content/mmria-committee-facilitation-guide
Graphic sourced from: South Dakota DoH https://doh.sd.gov/statistics/maternalmortality.aspx

Maternal Mortality Review Committee (MMRC)

- Part of an ongoing quality improvement cycle
- Incorporates multidisciplinary expertise, typically staffed by/hosted by public health agency
- Leads to understanding of the drivers of a maternal death and determination of what interventions will have the most impact at patient, provider, facility, system and community level to prevent future deaths

Guiding Questions:

- Was the death pregnancy-related?
- What was the underlying cause of death?
- Was the death preventable?
- What are the contributing factors to the death?
- What specific and feasible actions might have changed the course of events?

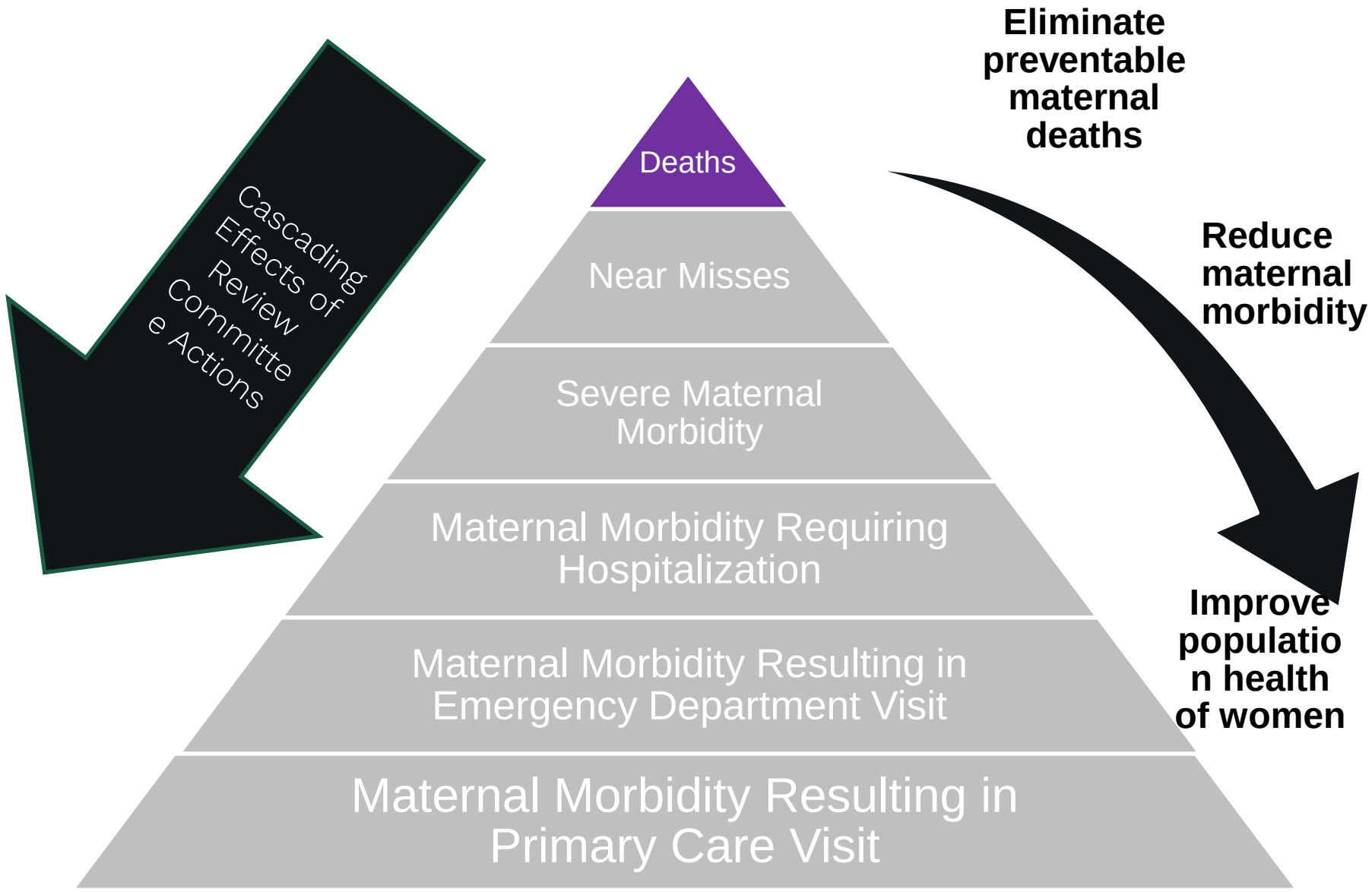
MMRC Is:

- Ongoing anonymous and confidential process of data collection, analysis, interpretation and action
- Systematic process guided by policies, statutes, rules, etc.
- Intended to move from data collection to prevention activities

MMRC Is NOT:

- A mechanism for assigning blame or responsibility for any death
- A research study
- Peer review
- An institutional review
- A substitute for existing mortality and morbidity inquiries

Impact



Sourced from: Building U.S. Capacity to Review and Prevent Maternal Deaths. (2018). Report from nine maternal mortality review committees. http://reviewtoaction.org/Report_from_Nine_MMRCs

The Role of the MMRC

	CDC – National Center for Health Statistics (NCHS)	CDC – Pregnancy Mortality Surveillance System (PMSS)	Maternal Mortality Review Committees
Data Source	Death certificates	Death certificates linked to fetal death and birth certificates	Death certificates linked to **fetal death and birth certificates, medical records, social service records, autopsy, informant interviews…**
Time Frame	During pregnancy – 42 days	During pregnancy – 365 day	During pregnancy – 365 days
Source of Classification	ICD-10 codes	Medical epidemiologists (PMSS-MM)	**Multidisciplinary committees**
Purpose	Show national trends and provide a basis for international comparison	Analyze clinical factors associated with deaths, publish information that may lead to prevention strategies	**Understand medical and non-medical contributors to deaths, prioritize interventions that effectively reduce maternal deaths**

Sourced from: St Pierre A, Zaharatos .J., Goodman D, Callaghan W.M., Challenges and opportunities in identifying, reviewing, and preventing maternal deaths. Obstetrics & Gynecology, 2018. 131(1): p. 138-142.

Iowa 2021 MMRC Report Data
Case data from the last half of 2018 and 2019

Pregnancy Related

- **Eclampsia – leading cause of death**
- **Postpartum Hemorrhage**
- **Suicide**
- 100% of pregnancy related cases were determined preventable
- Timing of death related to pregnancy
  - none during pregnancy
  - 75% within 42 days after the end of the pregnancy
  - 25% - 43 days to 1 year after end of the pregnancy.
- 50% Non-Hispanic white and 50% Ethnicity Hispanic (race not identified)

Iowa 2021 MMRC Report Data
Case data from the last half of 2018 and 2019
Pregnancy Associated but NOT Related

- **Blunt force trauma from motor vehicle crashes - leading cause**
- **Pneumonia**
- **Drug overdose**
- **Cerebral artery hemorrhage, endocarditis related to IV drug use**

Iowa 2021 MMRC Report Data
Case data from the last half of 2018 and 2019
Pregnancy Associated –Unable to Determine Pregnancy Relatedness

- **Suicide**
- **Cardiac Arrhythmia caused by cardiomegaly left ventricular hypertrophy**
- **Homicide (Domestic violence)**
- **Cardiac Arrest**

Iowa 2021 MMRC Report Data
PREGNANCY-ASSOCIATED BUT NOT RELATED OR UNDETERMINED RELATEDNESS TO PREGNANCY

Preventability, timing, race ethnicity

- 81% of pregnancy related cases were determined preventable
- Timing of death related to pregnancy
  - 46% during pregnancy
  - None within 42 days after the end of the pregnancy
  - 54%- 43 days to 1 year after end of the pregnancy.
- 91% Non-Hispanic white and 9% Non-Hispanic Black

Co-occurring conditions

- Mental Health – 45.4%
- SUD-36%
- Domestic Violence- 27%
- Obesity – 18%
- Hypertension-18%
- Tobacco Use 18%
- Diabetes- 9%

Iowa 2021 MMRC report -Other key findings
All Pregnancy Associated Deaths

- Structural racism and/or discrimination were determined to be a contributing factor in 40% of the cases.
- Race and Ethnicity – 80% of deaths were non-Hispanic white, 6% non-Hispanic black, and 13% of deaths the ethnicity was self-identified as Hispanic with no race identified

• 53% were post-partum deaths and of those 26.6% were Medicaid eligible at the time of birth and the death occurred between 60 days or up to one year after the end of the pregnancy.

Iowa 2021 MMRC Committee Results

Category of Death	Preventable	Unpreventable	Undetermined	Timing of Death
Pregnancy Related	▪ Eclampsia (leading cause) ▪ Postpartum hemorrhage ▪ Suicide			▪ 75% were within 42 days of the end of the pregnancy ▪ 25% within 43 days to 1 year of the end of the pregnancy
Pregnancy-Associated but NOT related	▪ Blunt force trauma from motor vehicle crash (leading cause) ▪ Drug overdose ▪ pneumonia ▪ cerebral artery hemorrhage, endocarditis related to IV drug use	Blunt force trauma from motor vehicle crash		▪ 46 % occurred during pregnancy ▪ 0 occurred within 42 days of the end of the pregnancy ▪ 54% occurred within 43 days to 1 year of the end of the pregnancy
Pregnancy-Associated but unable to determine pregnancy relatedness	▪ Suicide ▪ Cardiac arrhythmia ▪ Homicide (domestic violence)		Cardiac arrest	

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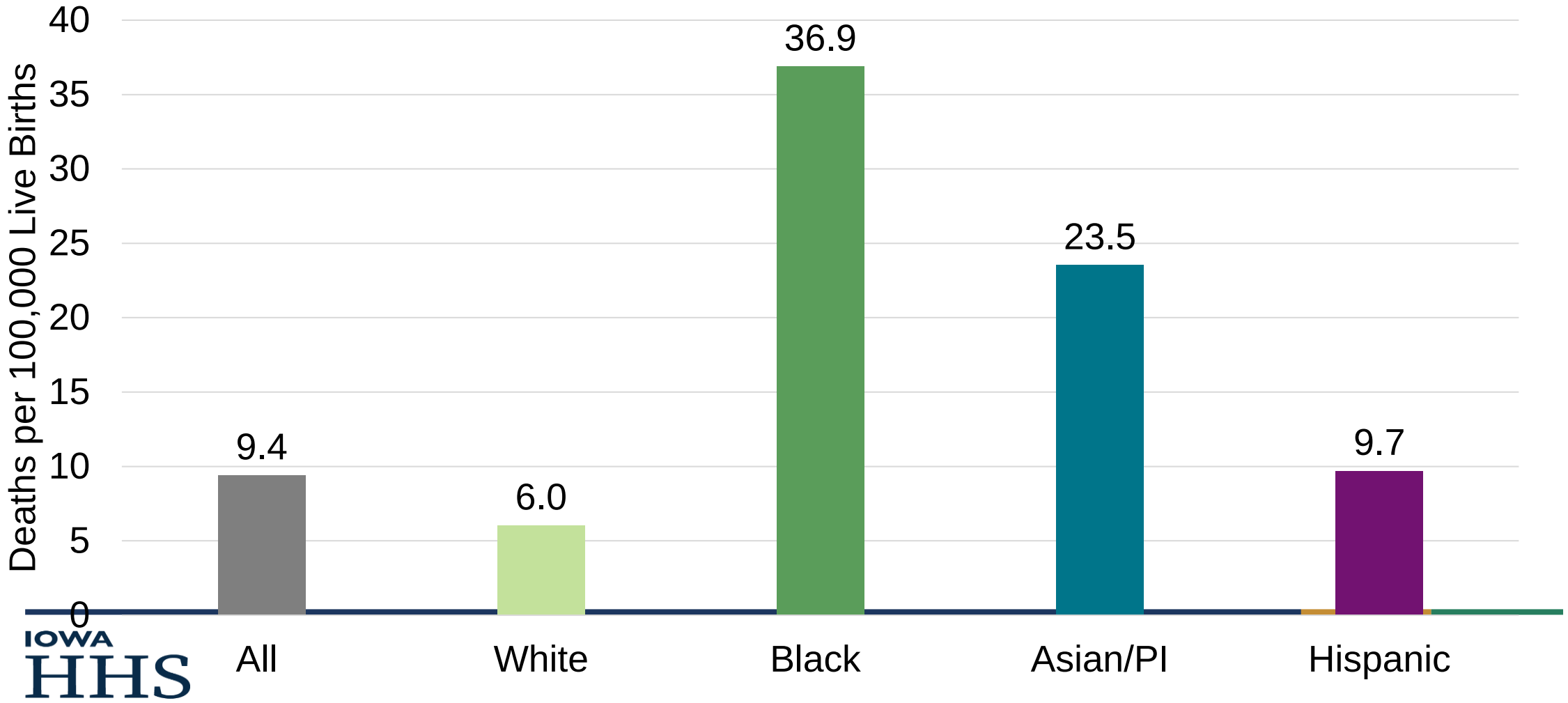
Maternal Mortality Ratio by Race/Ethnicity

Cases from 2016-2018*, 39 Deaths



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Successful Strategies to Improve Outcomes

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IMQCC

What are other factors driving rising rates of maternal mortality in the U.S.?

- Increasing prevalence of conditions that make pregnancy high-risk such as hypertension/heart disease, diabetes, obesity, and substance use disorders
- Challenges with accessing primary care, health insurance gaps, and barriers to accessing family planning services increase the likelihood that people will enter pregnancy in poor health
- Lack of access to specialty care for high-risk pregnancies and appropriate transition from pregnancy care to primary/preventative care services
- Rising cesarean birth rates increase likelihood of hemorrhage and surgical complications in future pregnancies/deliveries
- Pregnant and postpartum people are more likely to get severely ill from COVID-19
- Social and structural barriers to good health including access to respectful, high- quality healthcare

Pregnancy-Related Deaths Occur Up to a Year from the End of Pregnancy

31%

During pregnancy

36%

During delivery and up to 1 week afterward

33%

1 week to 1 year after

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Sourced from: https://www.cdc.gov/mmwr/volumes/68/wr/mm6835a3.htm?s_cid=mm6835a3

Causes of pregnancy-related deaths: by timing

DURING PREGNANCY

- Endocrine, hematologic, immunologic, renal
- Cardiovascular conditions: congenital heart disease, ischemic heart disease, cardiac valvular disease, hypertensive heart death, congestive heart failure

DELIVERY DAY

- Acute obstetric emergencies (hemorrhage and AFE)

1-6 DAYS POSTPARTUM (PP)

- Hypertension and thrombotic (pulmonary embolism)

LATE PP PERIOD

- Cardiomyopathy most common cause of death in the late PP period
  - Higher proportion of black women in late PP period likely attributable to cardiomyopathy in these women
  - Peripartum cardiomyopathy: up to 5 months after giving birth
- Noncardiovascular and cardiovascular medical conditions related to pregnancy can occur up to 1 year PP

Preventability of pregnancy-related deaths

- 3 out of 5 pregnancy-related deaths are preventable
- Recognizing major causes allows opportunities for intervention

(Petersen, 2019)

Opportunities for intervention

Patient/Family

- Lack of knowledge of warning signs and need to seek care; non-adherence to medical regimens

Provider

- Missed or delayed diagnosis and treatment, failure to screen or assess, use of ineffective treatments, failure to seek consultation, lack of knowledge

Systems of care

- Lack of communication as barrier to coordination of care between providers
- Policies & procedures, care coordination, inadequate training, inadequate personnel

Facility

- Limited experience with OB emergencies, lack of appropriate personnel

Community

- Unstable housing, limited access to transportation

Building U.S. Capacity to Review and Prevent Maternal Deaths, 2018

‘Safety Bundles’ are an approach to improve and standardize care developed by the IHI

Safety Bundle = evidence-based steps or actions related to a condition or process that when performed collectively and consistently are shown to reduce morbidity and mortality

Example: Maternal Hemorrhage

- Hemorrhage risk-assessment
- Hemorrhage kit or cart (readiness)
- Quantification of blood loss at delivery (recognition)
- Stage-based standard hemorrhage management plan (response)

The Alliance for Innovation on Maternal Health (AIM Program)

- **What is AIM?** The Alliance for Innovation on Maternal Health (AIM) Program is a **national data-driven maternal safety and quality improvement initiative**.
- Kick off for our first Safety Bundle was held January 28 &29 2021
- ***Learn more about the AIM Program at: safehealthcareforeverywoman.org***

AIM
ALLIANCE FOR INNOVATION ON MATERNAL HEALTH
HHS
IMQCC

Iowa Cesarean Collaborative

Safe Reduction of
Primary Cesarean Birth

- First statewide Improvement Collaborative for IMQCC & Iowa AIM program
- **AIM's "Safe Reduction of Primary Cesarean Birth" + targeted improvement of the patient care experience**
- Top choice on vote by birthing hospitals
- 43 of 57 birthing hospitals participating, 93% of births in Iowa!

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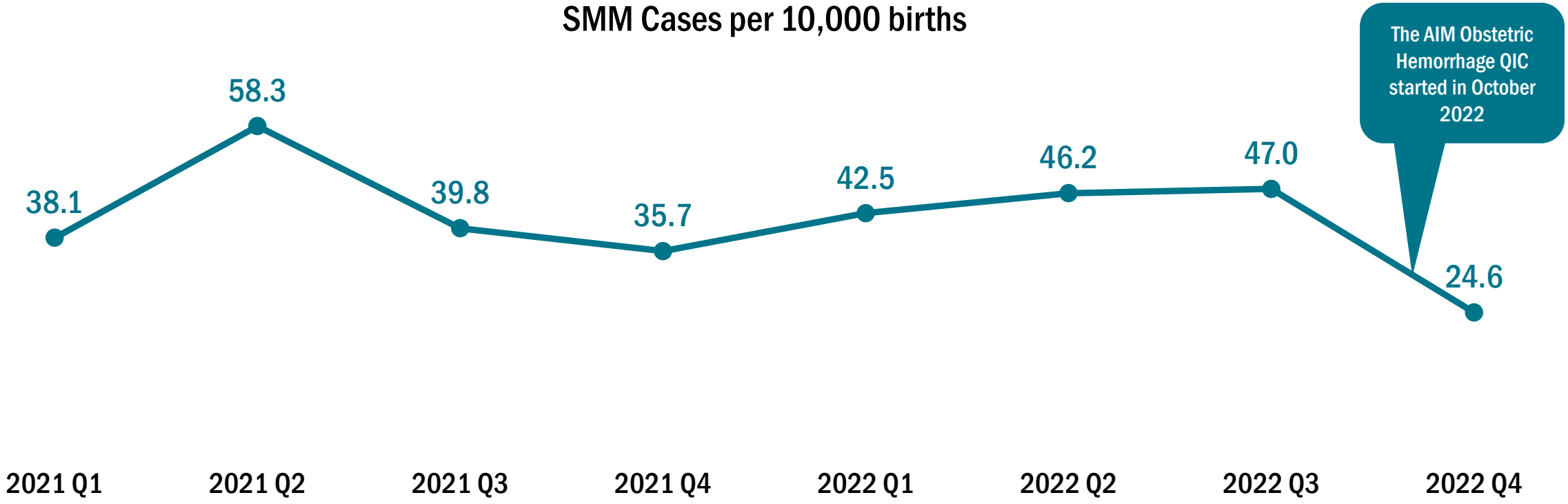
IDPH Iowa Department of Public Health

IMQCC

The rate of Severe Maternal Morbidity (SMM) from hemorrhage significantly declined in the first quarter of our hemorrhage improvement collaborative.

SMM from hemorrhage is defined as receipt of 4 or more units of blood products or 2 units plus a procedure to control bleeding, need for emergency hysterectomy, need for ICU admission, or need for transfer to a higher level of care related to hemorrhage.
Data shown are as reported by hospitals and presented as cases per 10,000 births.



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Iowa HHS Pilot Doula Pilot Project Goals

- Decrease maternal mortality & morbidity
  - Providing culturally congruent support to pregnant moms
  - Increase early entry to prenatal care
  - Multidisciplinary support
- Increase breastfeeding initiation rates
- Diversification of Perinatal workforce
- Create a model for insurers to consider reimbursement for doula services

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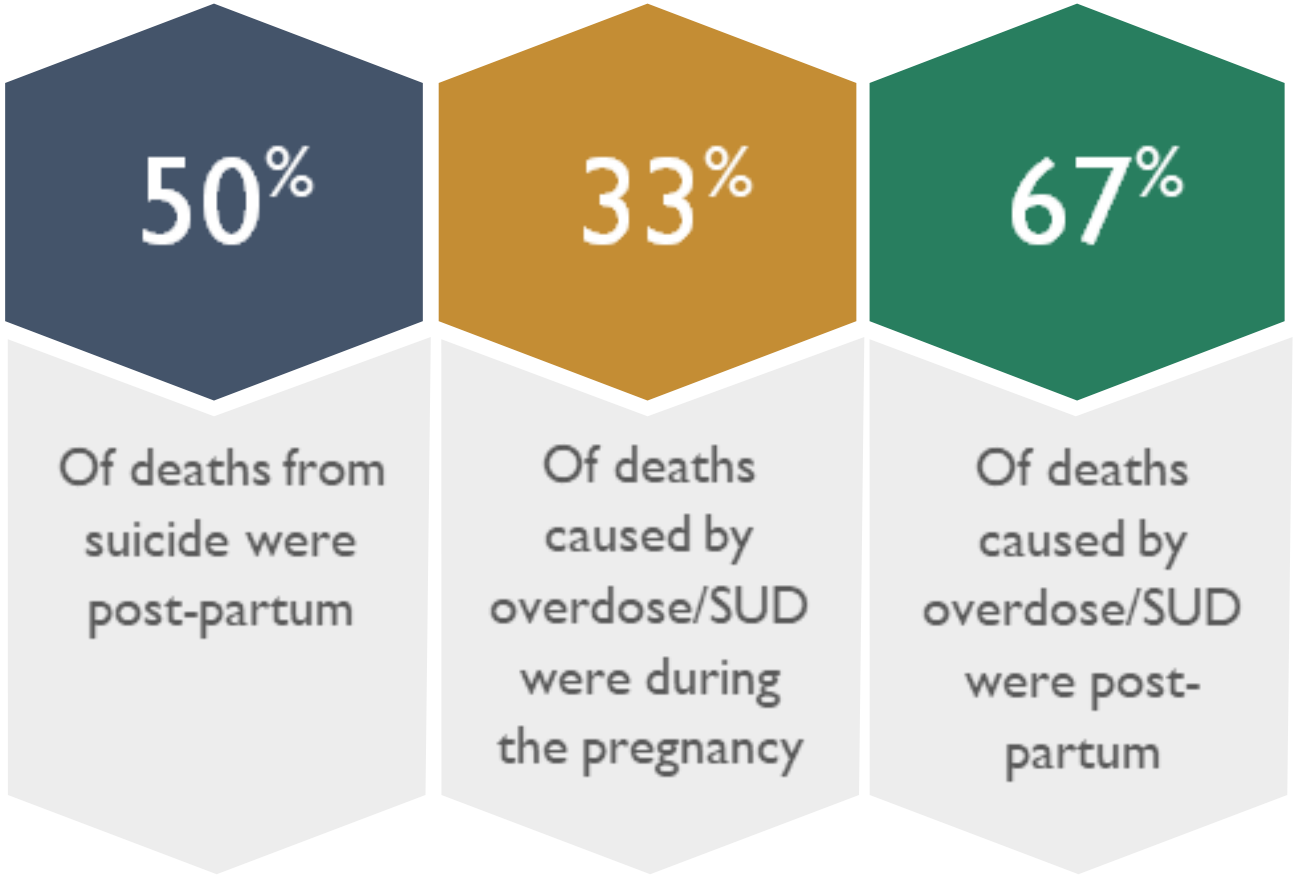
AWHONN- Respectful Maternity Care Framework – Quick Guide. Part of the Key Recommendations

- I. **AWARENESS** - Respect and honor patients' approaches that may be different from your own personal views. Develop conscious awareness of your own personal biases that may impact the care you provide and take action to mitigate them.
- II.**MUTUAL RESPECT** -Actively listen to, acknowledge, and honor patient requests to the greatest extent possible. Avoid minimizing or discounting patients' concerns and needs.
- III. **SHARED DECISION MAKING AND INFORMED CONSENT** - Discuss all available options with patients and support persons. Confirm that full informed consent is obtained
- IV. **AUTONOMY**- Demonstrate support for the patient's individual choices
- V. **DIGNITY**- Protect patients' physical and informational privacy. Respect and welcome the presence of support people chosen by the patient
- VI. **ACCOUNTABILITY-** Include shared decision making and respectful care standards in written policies and payment and reimbursement models.

In Iowa, suicide and overdose were among the top causes of pregnancy-associated deaths (deaths to women during pregnancy or up to one year following the end of pregnancy) according to the Iowa Maternal Mortality Review Committee reports that occurred between 2015-2019[10]:



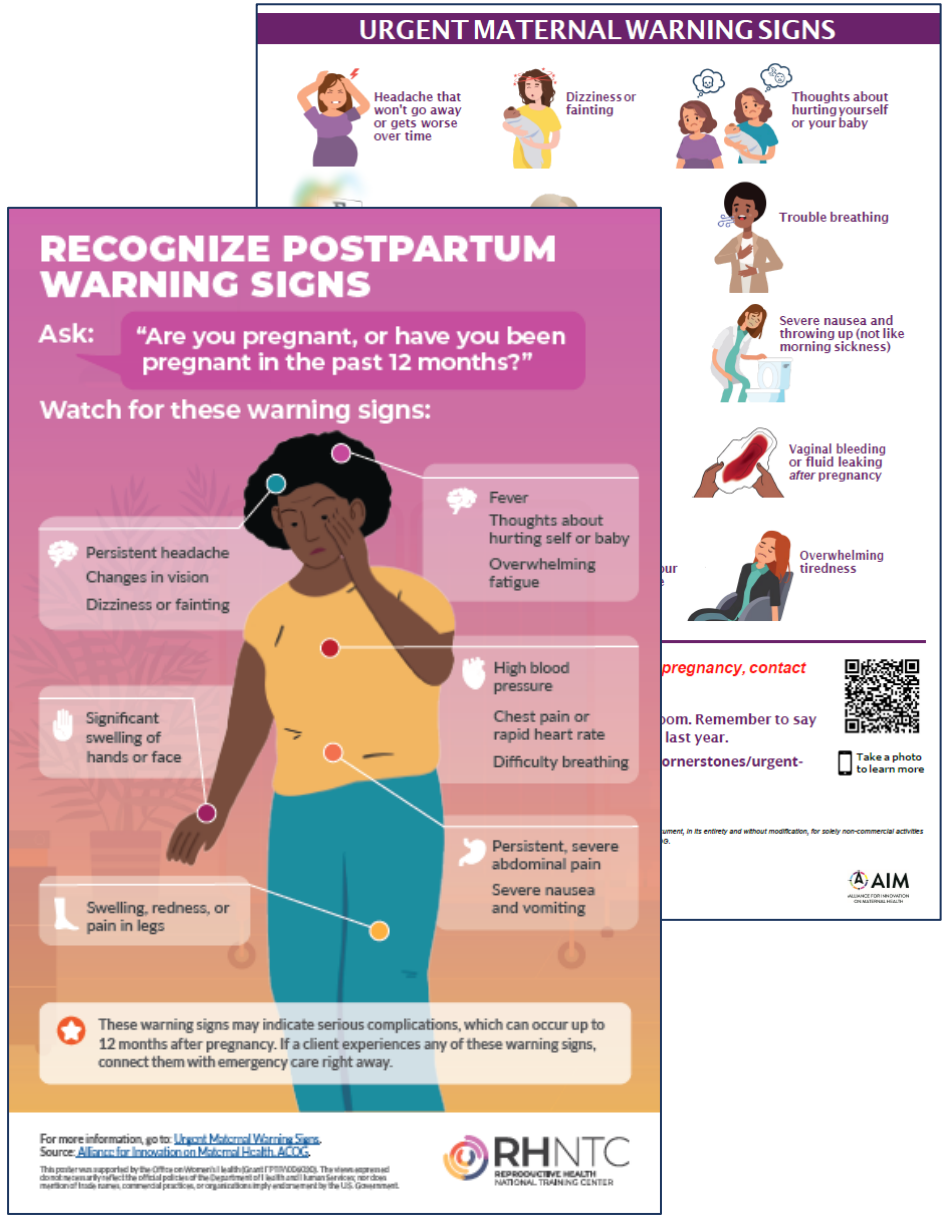
Your role in reducing the number of pregnancy-related deaths.

- **Health Screening: Recognize and refer**
  - **Depression**
    - **EPDS**
    - **PHQ-9**
    - Patient Health Questionnaire- (PHQ-2) –persistent for two weeks or more refer to health care providers
      - Little interest or pleasure in doing things.
      - *Feeling down, depressed or hopeless*
  - **Domestic Violence** – *If you are concerned about your safety or the safety of your children, I will personally do everything I can to make sure you are safe- and remain safe- before you leave here today. We care and know what to do to keep you safe.*
    24/7 Domestic Violence Hotline 1-800-799-7233 ;
    - For training, and education resources https://www.futureswithoutviolence.org/health/
  - **Substance Abuse -** refer to health care providers – resources on Your Life Iowa
    - https://yourlifeiowa.org/
    - If opioid user – Refer for MAT and give Nal

What else can you do to help?

- Educate

50% of pregnancy-related deaths occur in the postpartum period!



How Can You Help?

If a pregnant or recently pregnant woman expresses concerns about any symptoms she is having, take the time to Hear Her. If she says something doesn't feel right, encourage her to seek medical help. If she is experiencing an urgent maternal warning sign, she should get medical care right away. Be sure that she says she is pregnant or was pregnant within the last year.

Learn the urgent maternal warning signs:

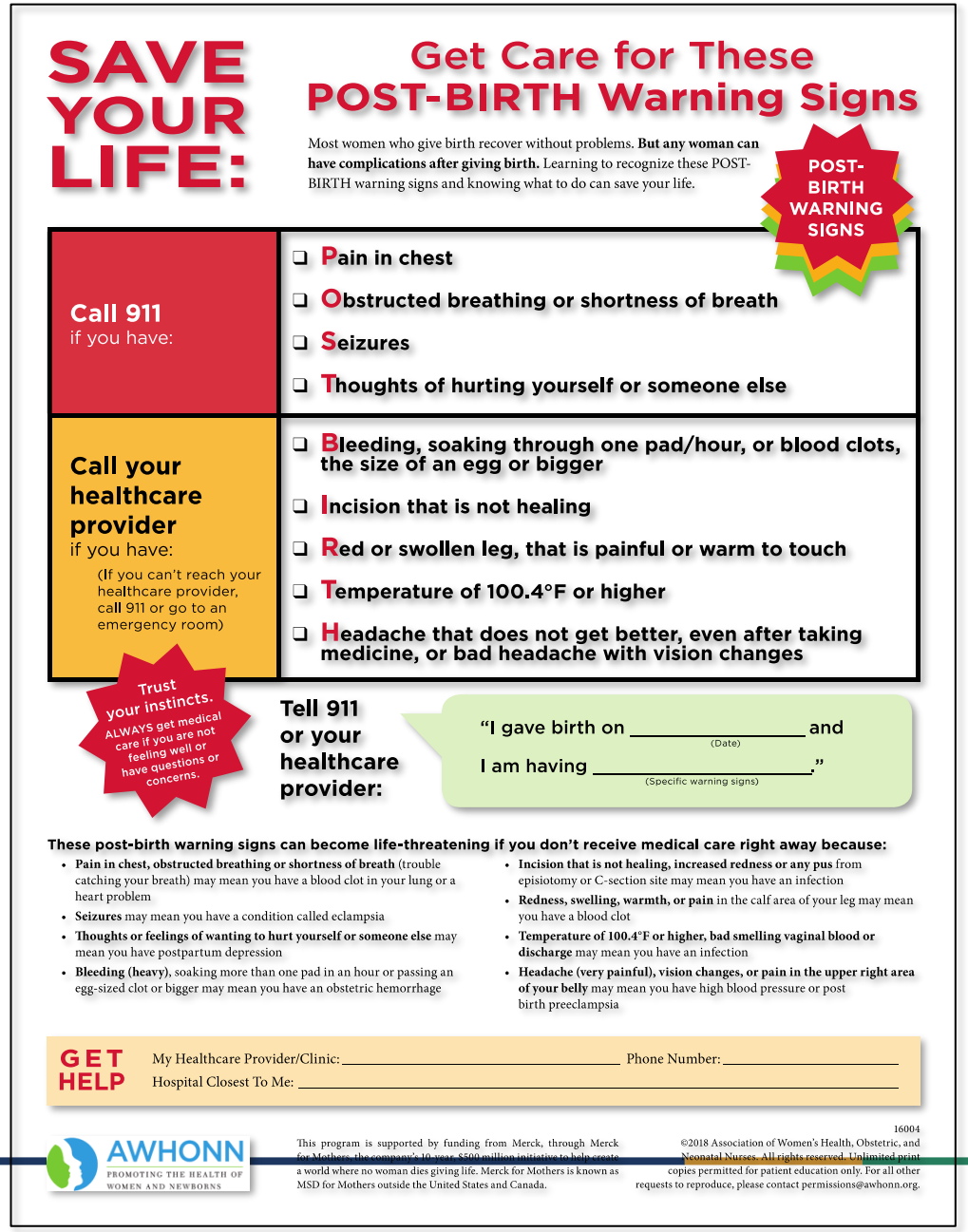
- Severe headache that won't go away or gets worse over time
- Dizziness or fainting
- Thoughts about harming yourself or your baby
- Changes in your vision
- Fever of 100.4° F or higher
- Extreme swelling of your hands or face
- Trouble breathing
- Chest pain or fast-beating heart
- Severe nausea and throwing up (*not like morning sickness)*
- Severe belly pain that doesn't go away
- Baby's movement stopping or slowing down during pregnancy
- Vaginal bleeding or fluid leaking during pregnancy
- Heavy vaginal bleeding or leaking fluid that smells bad after pregnancy
- Swelling, redness or pain of your leg
- Overwhelming tiredness

Learn more about CDC's Hear Her Campaign at www.cdc.gov/HearHer.

Recognition is Key !

- AWHONN's POST-BIRTH Warning Signs is designed to help educate and empower women to understand potential life-threatening emergencies and know when to call 911 or their health care provider

- Specify risks included in POST-BIRTH Warning Signs materials include cardiac disease, PE, VTE, hypertension , hemorrhage, sepsis, postpartum depression



SAVE YOUR LIFE:

Get Care for These POST-BIRTH Warning Signs

Most women who give birth recover without problems. **But any woman can have complications after giving birth.** Learning to recognize these POST-BIRTH warning signs and knowing what to do can save your life.

POST-BIRTH WARNING SIGNS

Call 911 if you have:

- ❑ **P**ain in chest
- ❑ **O**bstructed breathing or shortness of breath
- ❑ **S**eizures
- ❑ **T**houghts of hurting yourself or someone else

Call your healthcare provider if you have:

(If you can't reach your healthcare provider, call 911 or go to an emergency room)

- ❑ **B**leeding, soaking through one pad/hour, or blood clots, the size of an egg or bigger
- ❑ **I**ncision that is not healing
- ❑ **R**ed or swollen leg, that is painful or warm to touch
- ❑ **T**emperature of 100.4°F or higher
- ❑ **H**eadache that does not get better, even after taking medicine, or bad headache with vision changes

Trust your instincts. ALWAYS get medical care if you are not feeling well or have questions or concerns.

Tell 911 or your healthcare provider:

"I gave birth on _____ (Date) and I am having _____ (Specific warning signs)."

These post-birth warning signs can become life-threatening if you don't receive medical care right away because:

- **Pain in chest, obstructed breathing or shortness of breath** (trouble catching your breath) may mean you have a blood clot in your lung or a heart problem
- **Seizures** may mean you have a condition called eclampsia
- **Thoughts or feelings of wanting to hurt yourself or someone else** may mean you have postpartum depression
- **Bleeding (heavy)**, soaking more than one pad in an hour or passing an egg-sized clot or bigger may mean you have an obstetric hemorrhage
- **Incision that is not healing, increased redness or any pus** from episiotomy or C-section site may mean you have an infection
- **Redness, swelling, warmth, or pain** in the calf area of your leg may mean you have a blood clot
- **Temperature of 100.4°F or higher, bad smelling vaginal blood or discharge** may mean you have an infection
- **Headache (very painful), vision changes, or pain in the upper right area of your belly** may mean you have high blood pressure or post birth preeclampsia

GET HELP

My Healthcare Provider/Clinic: _____ Phone Number: _____

Hospital Closest To Me: _____

16004

AWHONN PROMOTING THE HEALTH OF WOMEN AND NEWBORNS

This program is supported by funding from Merck, through Merck for Mothers, the company's 10-year, $500 million initiative to help create a world where no woman dies giving life. Merck for Mothers is known as MSD for Mothers outside the United States and Canada.

HHS

Educate about COVID-19 vaccination

- The CDC updated guidance for COVID-19 vaccines while pregnant or breastfeeding to recommend that all people aged 12 years and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future, receive the COVID-19 vaccine.
- Pregnant and recently pregnant people are more likely to get severely ill with COVID-19 compared with non-pregnant people.
- Getting a COVID-19 vaccine can protect pregnant and breastfeeding people from severe illness from COVID-19.
- Evidence continues to build showing that:
  - COVID-19 vaccination during pregnancy is safe and effective.
  - COVID-19 vaccines are not associated with fertility problems in women or men.

Screen for Domestic Violence

- Nationally Homicides accounted for 15% of all pregnancy-associated deaths for Black women. In contrast , homicide was a rare cause of death for non-Hispanic White women (2%)
- Research shows that a gun in the home is a key factor from non spousal abuse to homicide
- Rates of firearm-related intimate partner homicide are greatest in states were firearm prevalence is highest
- Ask every patient if there are guns in the home

- Wallace (2021)

EAT WELL

Don't "Eat for Two!"

Unlike what you may have heard, pregnancy isn't a time to eat whatever you want. You may gain too much weight. In the first three months, most women don't need any extra food. In the last six months, you only need an extra 200-300 calories a day.
Try one of these snacks which will give you 200-300 calories:

- Apple with peanut butter
- Carrots with hummus
- Low-fat yogurt with fruit or nuts
- 1/2 an avocado with whole-grain crackers

Limit Junk Food. Most of the food you put in your body, especially during pregnancy, should be healthy. It is fuel for you and your baby! Junk food doesn't give you energy and can lead to unhealthy weight gain. Foods to limit include:

- Candy
- Soda
- Sugary cereals
- Energy drinks
- Fried foods
- Potato chips

Feeling Sick? Feeling sick while you are pregnant can keep you from eating healthy foods. Here are some tips to help:

- Eat small meals five or six times a day.
- Eat bland foods. Stay away from those with strong smells or flavors.
- Drink as much fluid as possible.
- For fiber, eat fruit instead of grains.
- Try your prenatal vitamin at a different time of the day.

FEEL BETTER

Rest Up!

Sleep is a priority! Try for at least 8 hours of sleep, and take short naps if you are still tired. Find time to relax. Take 10 minutes a day of quiet time to refocus and energize.

Prioritize Your Mental Health

Call your health care provider or come in for a visit if you have symptoms of depression or if you have lost interest or pleasure in doing things. If you think your stress/anxiety is becoming too much to handle, talk to your family, friends and especially your health care provider.

NOTES:

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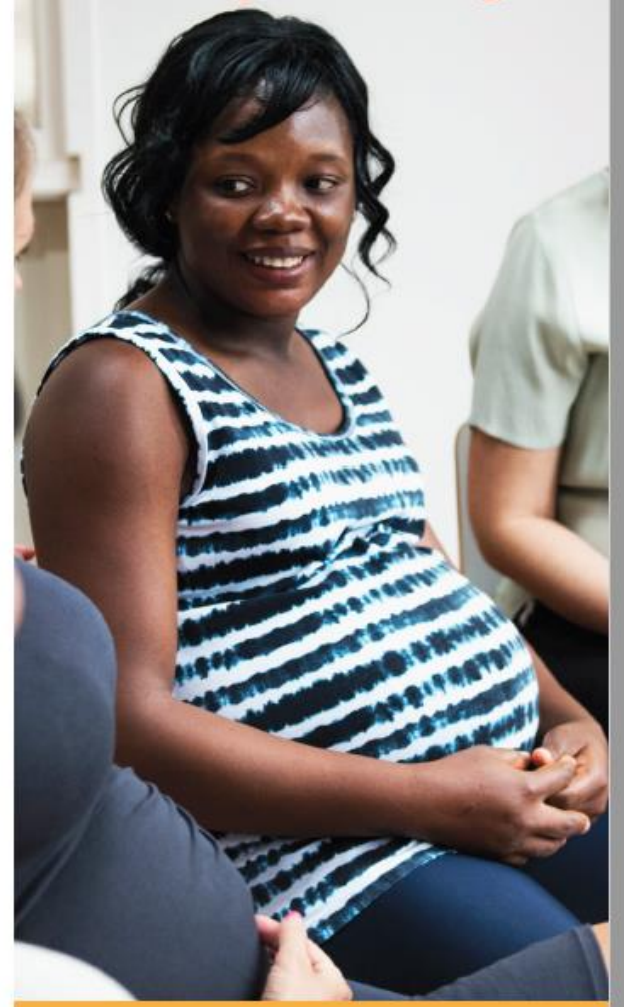
For additional information on maternal, child and family planning services, call the Iowa Families Line:
1-800-369-2229

5 2 1 0 Healthy Choices Count!

IDPH Iowa Department of Public Health

This brochure was adapted from LetsGo.org by the Iowa Department of Public Health and 5-2-1-0 Healthy Choices Count! initiative.
Learn more at IowaHealthiestState.com/5210

HEALTHY HABITS DURING YOUR PREGNANCY



Eat Well • Move More • Feel Better

HEALTHY HABITS DURING YOUR PREGNANCY

Eat healthy, be active, and aim for healthy weight gain during your pregnancy. It's important for you and your baby.

How Much Weight Should I Gain?

How much weight you should gain is based on what you weighed before pregnancy. Here are the usual amounts, but check with your doctor about what is right for you.

If *before* pregnancy you were:	Then you should gain this much:
Underweight (BMI = <18.5)	28-40 pounds
Normal weight (18.5-24.9)	25-35 pounds
Overweight (25-29.9)	15-25 pounds
Obese (>30 or more)	11-20 pounds

BMI is a measure of body fat based on height and weight. To find out your BMI before pregnancy go to: http://www.nhlbi.nih.gov and search for "BMI calculator."

Be careful not to gain too much weight early in your pregnancy. Most women should gain only 1-4 pounds in the first three months.

MOVE MORE

It's safe to be active during pregnancy and it's good for you and your baby!

Movement can help:

- Ease side effects of pregnancy, such as tiredness and back pain
- Prevent gestational diabetes
- Strengthen your body for labor + delivery

Unless your doctor has told you not to exercise, try to get 150 minutes a week of activity. Don't do activities with a high chance of falling or getting hurt. Here are some activities that are safe for most women: Walking, gardening, swimming, dancing and pre-natal yoga.

EAT WELL

Eat Real Foods

Pregnancy is an important time to fill your body with healthy foods.

Fill half of your plate with fruits and veggies.
Eat different types and colors — it's good for you, and may even teach your baby to like different tastes! Try these:

- Put fruit on cereal or oatmeal
- Add vegetables to pizzas, sandwiches and casseroles
- Snack on an apple, carrots or a banana
- If raw vegetables bother your stomach, cook them (roast, steam or sauté).

Eat foods with protein. Your baby needs protein to grow. Try lean meats, chicken, turkey, eggs, beans, soy products, nuts and nut butters, and seeds.

Eat whole grains. Grains give you energy and have important vitamins for you and your baby. *(continued on next page...)*

Make at least half of the grains you eat whole grains. Look for a whole grain as the first ingredient. Try these:

- Whole-grain cereal, bread or pasta
- Brown rice or quinoa
- Barley in a soup or casserole

Eat seafood two or three times each week.
Seafood is healthy for you and your baby. It has omega-3 fatty acids, plus vitamins like D and B-6 and minerals like zinc and potassium. Some seafood isn't safe to eat during pregnancy (fish high in mercury: shark, swordfish). Also, uncooked fish (sushi, raw oysters) can be unsafe. Ask your doctor for more information.

Drink plenty of water. Your body needs more water during pregnancy. Drinking water can also help with constipation, which some women have during pregnancy. Try to drink about 10 cups of water each day. Stay away from sugary drinks, like soda and energy drinks. If you drink coffee or tea, ask your doctor about how much caffeine is safe during pregnancy.

Get your dairy! Dairy products (like yogurt, cheese and milk) have calcium, which helps build your baby's bones and teeth. If dairy bothered your stomach before pregnancy, it may actually get better during pregnancy. But if it still bothers you, try these:

- Orange juice or cereal with added calcium
- Sardines or salmon with bones
- Tofu
- Broccoli
- Spinach

There is also a pill that can make dairy products easier on your stomach — ask your doctor or at the pharmacy.

Social Media Campaign

IOWA HHS

IF YOU'RE PREGNANT SEAT BELT RECOMMENDATIONS FOR DRIVERS AND PASSENGERS

I'M PREGNANT. SHOULD I WEAR A SEAT BELT?

YES—doctors recommend it. Buckling up through all stages of your pregnancy is the **single most effective** action you can take to protect yourself and your unborn child in a crash.

NEVER drive or ride in a car without **buckling up** first!

WHAT'S THE RIGHT WAY TO WEAR MY SEAT BELT?

SHOULD I ADJUST MY SEAT?

* If you need additional room, consider adjusting the steering wheel or having someone else drive, if possible.
** If you're a passenger, move your seat back as far as possible.

IF YOU'RE PREGNANT SEAT BELT RECOMMENDATIONS FOR DRIVERS AND PASSENGERS

WHAT IF MY CAR OR TRUCK HAS AIR BAGS?

You still need to wear your seat belt properly.

Air bags are designed to work with seat belts, not replace them.

Without a seat belt, you could crash into the vehicle interior, other passengers, or be ejected from the vehicle.

MY CAR HAS AN ON-OFF AIR BAG DISABLING SWITCH. SHOULD I TURN IT OFF?

NO. Doctors recommend that pregnant women wear seat belts and **leave air bags turned on.**

Seat belts and air bags work together to provide the **best protection for you and your unborn child.**

WHAT SHOULD I DO IF I AM INVOLVED IN A CRASH?

Seek immediate medical attention, even if you think you are not injured, regardless of whether you were the driver or a passenger.

FOR MORE INFORMATION, VISIT SAFERCAR.GOV

U.S. Department of Transportation
National Highway Traffic Safety Administration

Child Car Safety

NHTSA
www.nhtsa.gov

11426-122015-v8

Resources

- ACOG Committee Opinion #736 May 2018 Optimizing Postpartum Care https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Optimizing-Postpartum-Care?IsMobileSet=false
- Berg C, Daniel I, Atrash H, Zane S, Bartlett L, editors. Strategies to reduce pregnancy –related deaths. Atlanta (GA): Centers for Disease Control and Prevention; 2001
- Berg C, Harper M, Atkinson S, Bell E, Brown H, Hage M, et al. Preventability of Pregnancy-Related Deaths, Obstet Gynecol 2005:106:1228-1234.
- Centers for Disease Control, Preventing and Managing Chronic Disease to Improve the Health of Women and Infants, 2010.
- National Highway Traffic Safety Administration (NHTSA) "If your pregnant seat belt recommendations for drivers and passengers safety". https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/pregnant-seat-belt-use.pdf
- CDC Hear Her Campaign Clinical Resources and Tools: https://www.cdc.gov/hearher/healthcare-providers/clinical-resources-tools.html

IMQCC Website -https://www.imqcc.org/

- **Resource tab – COVID Resources**
- On August 11, the CDC updated guidance for COVID-19 vaccines while pregnant or breastfeeding to recommend that all people aged 12 years and older, including people who are pregnant, breastfeeding, trying to get pregnant now, or might become pregnant in the future, receive the COVID-19 vaccine. Pregnant and recently pregnant people are more likely to get severely ill with COVID-19 compared with non-pregnant people. Getting a COVID-19 vaccine can protect pregnant and breastfeeding people from severe illness from COVID-19.
- COVID Vaccine During Pregnancy Flyer
- COVID Vaccine Fact Sheet
- Provider Considerations for Engaging in COVID Vaccination Counseling

Resources

Maternal Patient Safety Bundles: https://saferbirth.org/patient-safety-bundles/

Toolkit for Improving Perinatal Safety: https://www.ahrq.gov/hai/tools/perinatal-care/index

Post Birth Warning Signs Education Program: https://www.awhonn.org/education/hospital-products/post-birth-warning-signs-education-program/

Recognize Postpartum Warning Signs RHNTC Poster: https://rhntc.org/resources/recognize-postpartum-warning-signs-poster

Iowa Maternal Mortality Review Committee Reports can be found at the following link:Maternal Health Data and Reports | Iowa Department of Health and Human Services