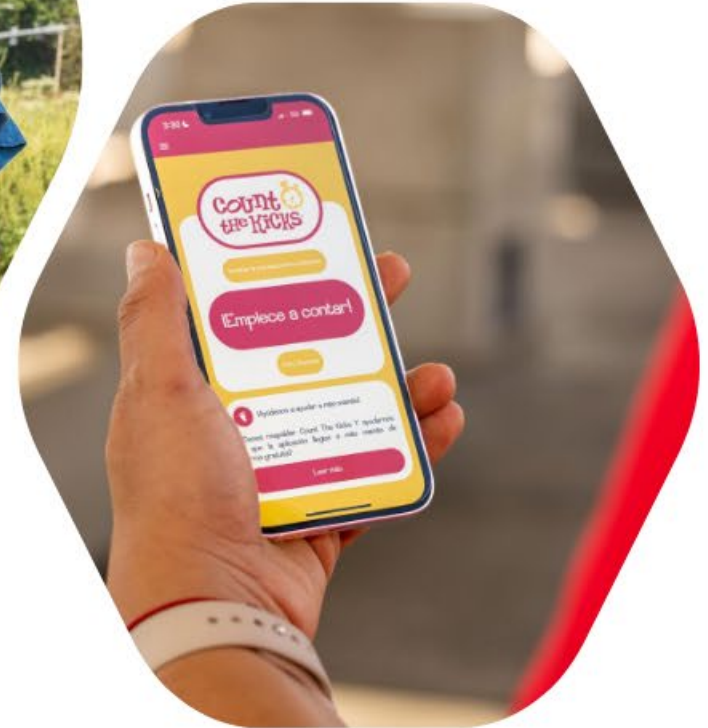


HEALTHY
birthDAY
IMPROVING BIRTH OUTCOMES

Count
the KICKS

ADVANCEMENTS IN STILLBIRTH RESEARCH: Implementing *Count the Kicks* in Your Work

THURSDAY, SEPT. 28 | 12 PM CST





Kai-Dalton



William



DJ



John Walker



Aspen



Ellis & Everly



Jovie



Nahla



Carter

Count  the Kicks

Speakers



Emily Price, CEO
Healthy Birth Day, Inc - Count
the Kicks



Christine Tucker, Health Equity
Coordinator, Healthy Birth Day,
Inc - Count the Kicks



Megan Aucutt, Program
Director
Healthy Birth Day, Inc. - Count
the Kicks



Dr. Alexander Heazell
Senior Clinical Lecturer in
Obstetrics and Clinical Director
of the Tommy's Stillbirth
Research Centre, University of
Manchester



Elizabeth B. Biddle, MPH,
MCHES®
MCH Outreach Coordinator
Bureau of Maternal and Child
Health
S.C. Dept. of Health &
Environmental Control



Aubrey Kitchel, BSN, RN
West Central Indiana FIMR
Project Coordinator
Tippecanoe County Health
Department



Participants will be able to....

Understand the latest advancements in stillbirth research + most recent U.S. stillbirth data

Demonstrate the role of *Count the Kicks*: Introduction to the *Count the Kicks* program, how it works, and its goal of empowering expectant parents

Reflect on success stories and outcomes from states that have implemented the program

Utilize the steps for implementing *Count the Kicks* in your work: strategies, partnerships, and resources

Defining Stillbirth



Stillbirth: A stillbirth is loss of a baby after 20 weeks of pregnancy.*

- On average, 21,000 babies are born still every year in the U.S.

*Read the CDC source [here](#)
**Read the CDC source [here](#)

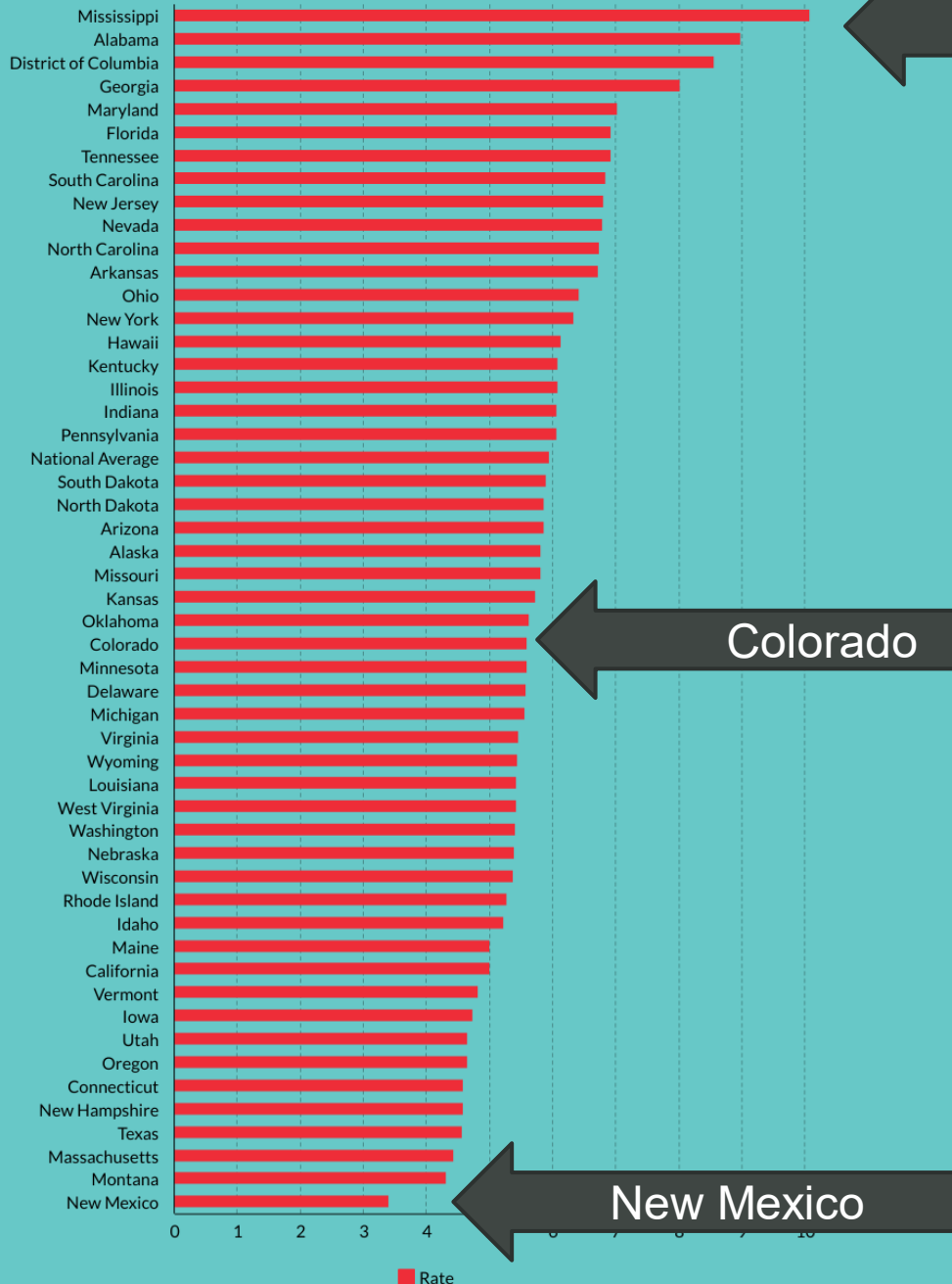
*You were born silent
Perfect and beautiful
Still loved
Still missed
Still remembered
Everyday
Stillborn
But Still born
-Michelle Salisbury*





U.S. Stillbirth Data

Fetal Death Rates/1,000 live births



Mississippi

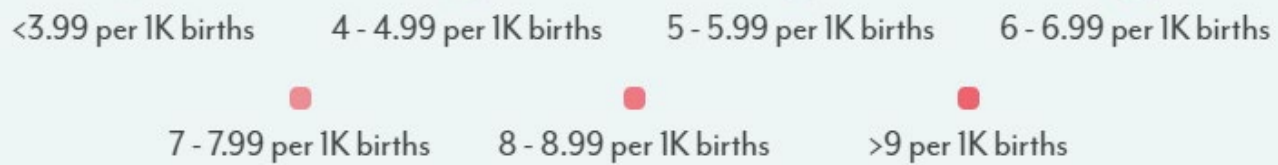
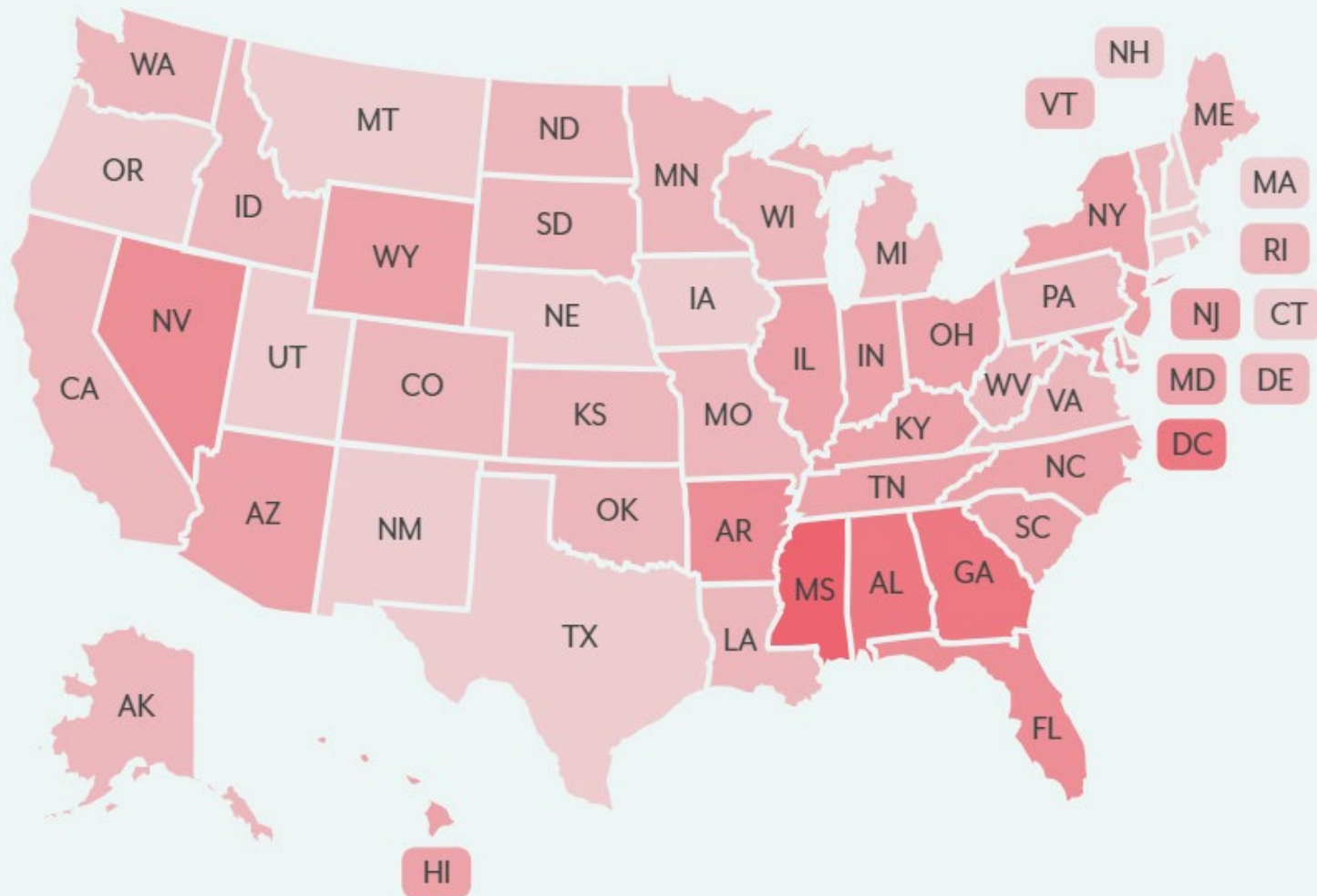
Colorado

New Mexico

Where does your state rank?

(CDC, 2021)

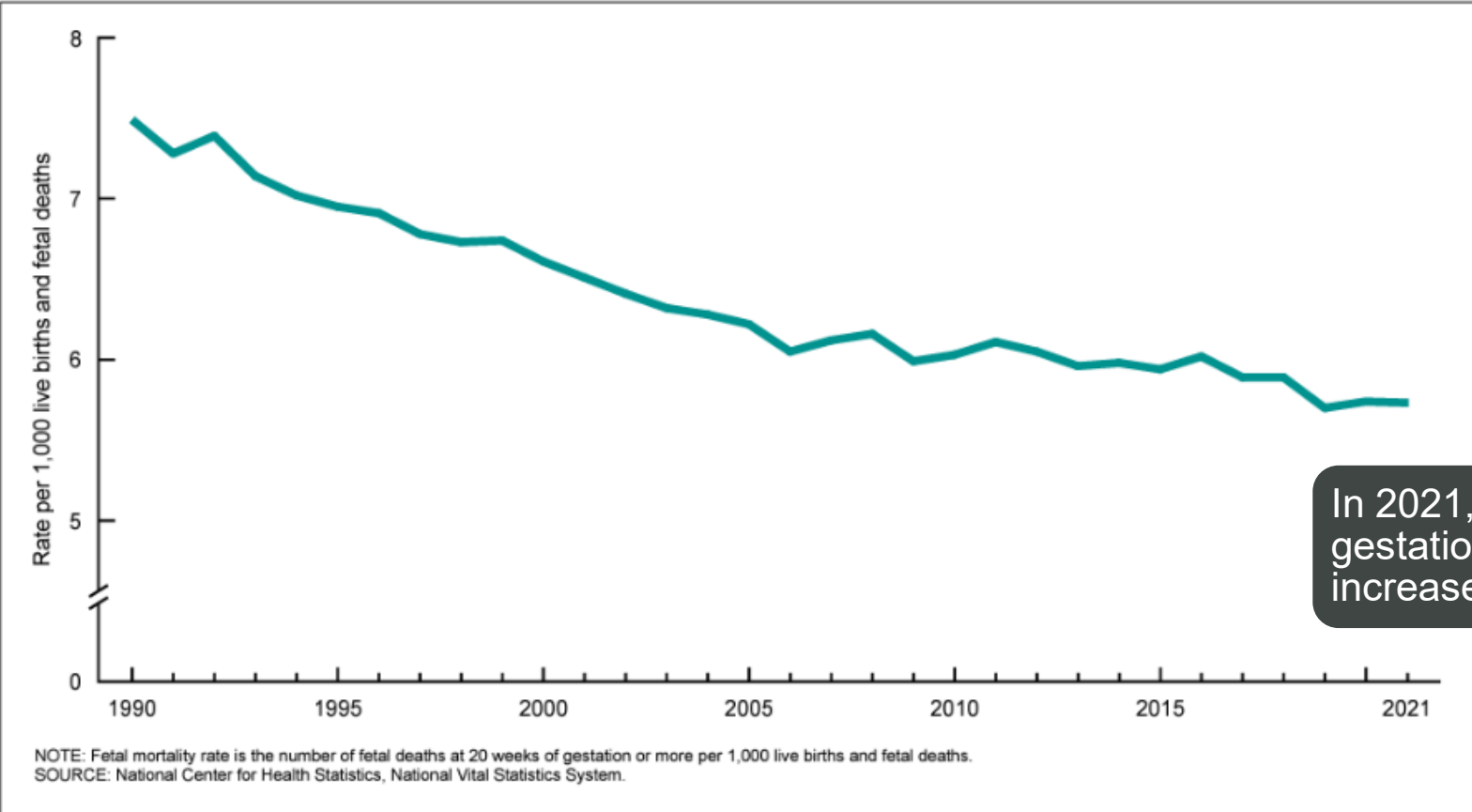




Stillbirth Prevalence



Fetal mortality rate: United States, 1990–2021



In 2021, 21,105 fetal deaths occurring at 20 weeks of gestation, or more were reported in the United States, an increase of 1% from 2020 (20,854)





Stillbirth by the numbers

National Data

Families are 6.5 times more likely to lose a baby to stillbirth than to SIDS

- ▶ 1 in 175 pregnancies end in stillbirth¹
- ▶ Racial disparities persist¹
 - ▶ Native Hawaiian or Other Pacific Islander pregnancies: 1 in 94
 - ▶ Black pregnancies: 1 in 97
 - ▶ American Indian and Alaska Native pregnancies: 1 in 128
 - ▶ Hispanic pregnancies: 1 in 205
 - ▶ White pregnancies: 1 in 211
 - ▶ Asian pregnancies: 1 in 254





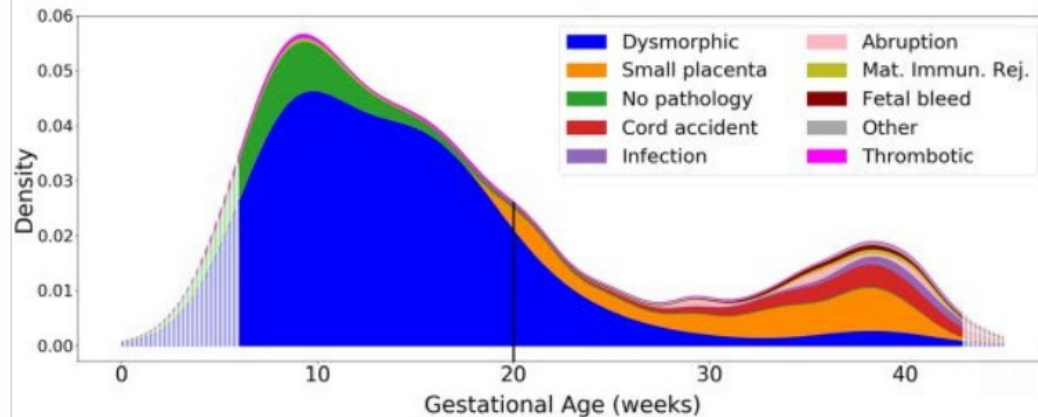
Advancements in Stillbirth Research



Newly published Yale research shows a small placenta is the number one cause of preventable unexplained stillbirth

Our friend Dr. Harvey Kliman of Yale University (a medical advisor to Measure the Placenta) has new research published that shows placental examination was able to determine 90% of previously unexplained pregnancy losses. A small placenta (less than 10th%ile) was shown to be the most common pathologic feature observed in unexplained stillbirths. This research further exposes the need for closer placental monitoring during pregnancy. Measure the placenta! [Read the Yale press release.](#)

Density plot of pregnancy loss pathologies from 6 to 43 weeks of gestation:



[Read the Study](#)



Measure the Placenta



MeasureThePlacenta.org
[@MeasureThePlacenta](https://twitter.com/MeasureThePlacenta)
Directors@MeasureThePlacenta.org

Count
the Kicks

The Human Placenta Project

The Human Placenta Project aims to revolutionize our understanding of the placenta and ultimately improve the health of mothers and children.

The human placenta is immensely important, affecting not just pregnancy, but lifelong health. Yet it is the least understood, and least studied, of all human organs.

Through the Human Placenta Project, we aim to develop new tools to study in real time how the placenta develops and functions throughout pregnancy. That knowledge may one day help treat, and even prevent, a range of common pregnancy complications, while providing insights into other areas of science and medicine, such as organ transplantation and cancer treatment.

A Closer Look at the Placenta

The placenta has many critical functions, such as:

- ▶ Bringing nutrients and oxygen to the fetus
- ▶ Removing harmful waste
- ▶ Providing immune protection
- ▶ Producing hormones to support fetal development



Problems with the placenta can lead to serious consequences, such as:



Preeclampsia



Gestational diabetes



Preterm birth and growth restriction



Stillbirth



Scientists have many questions about how the placenta develops normally and what causes placental problems. New technologies may make it possible, for the first time, to answer those questions.



National Institutes of Health

Learn more:
<http://nichd.nih.gov/hpp>
NICHDHPP@mail.nih.gov

The Human Placenta Project National Institutes of Health



Fetal Movement Monitoring

Fetal movement is a screening tool that is based on the physiologic principle that a compromised fetus will try to conserve energy requirements by reducing activity (Lyndon & Wisner, 2021).

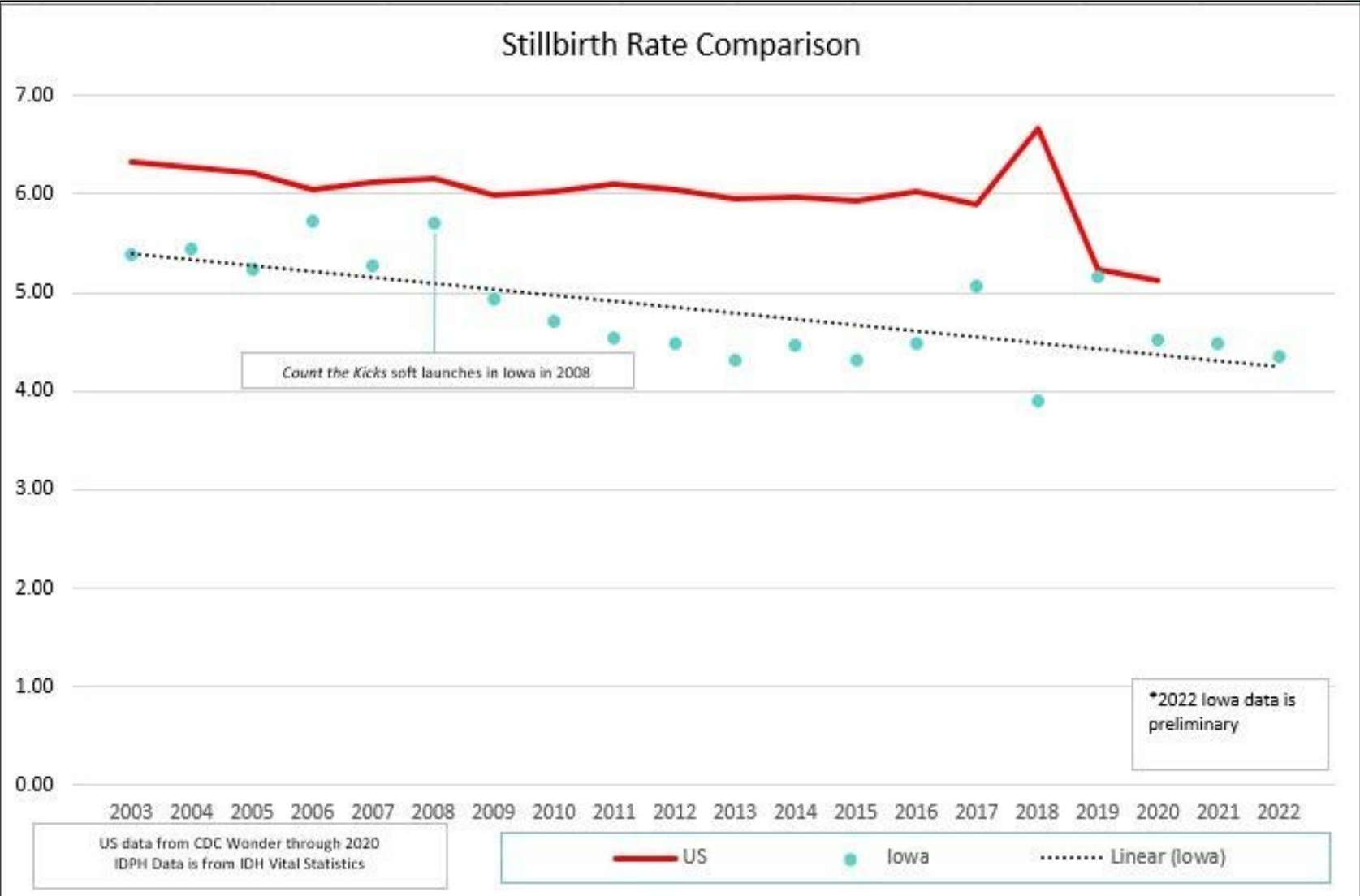
The incidence of stillbirth is 60 times higher in those who report decreased fetal movement, therefore insufficient number of movements need to be followed up with promptly (Lyndon & Wisner, 2021).

“Decreased fetal movement can be a warning sign of potential fetal impairment or risk, and therefore, warrants further evaluation by the healthcare provider.” (Bryant et al., 2022).

Fetal movement counting for assessing the well-being of the fetus generally starts between 32 and 34 weeks of gestation (Lyndon & Wisner, 2021). Pregnant persons with complications or risk factors may start counting fetal movement sooner.

Research shows Iowa's stillbirth rate declined one percent every three months for a decade while the U.S. remained relatively stagnant.

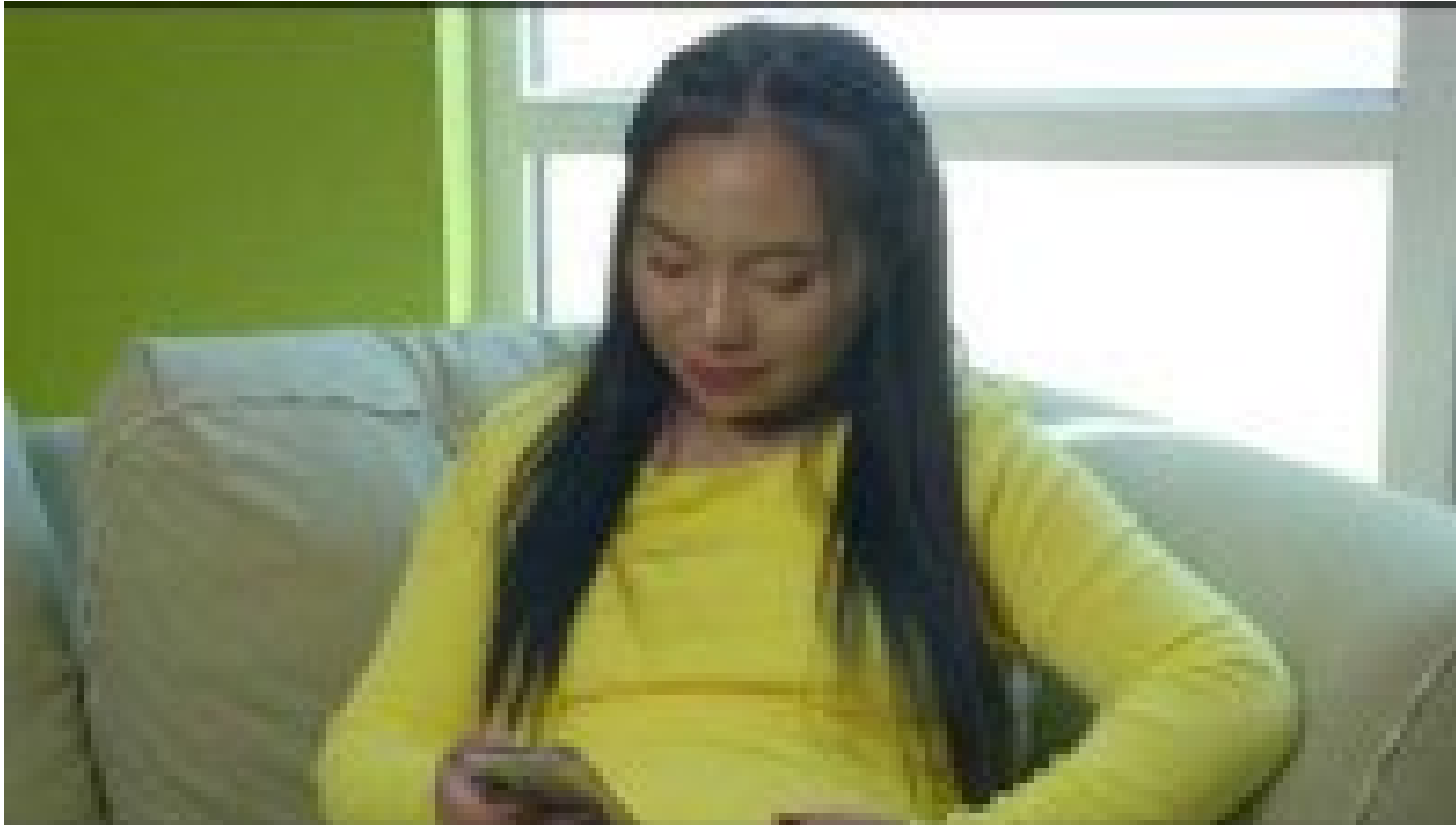
Iowa's African American stillbirth rate decreased by 39% in the first five years of our program.



Source: Iowa Department of Health + Human Services vital statistics 2003-2022



Research on *Count the Kicks* Published by BJOG
British Journal of Obstetrics and Gynaecology
February 2023



Count the Kicks Evidence

Published in AJOG and BJOG, evidence shows that expectant parents who utilize *Count the Kicks* have better birth outcomes.



We Help Save Moms' Lives Too

NEW REPORT

April 2022

Count the Kicks HEALTHY birthDAY IMPROVING BIRTH OUTCOMES The Harkin Institute APRIL 2022 STILLBIRTH IN THE U.S. REPORT

The Link Between Stillbirth & Maternal Mortality and Morbidity: Firsthand Accounts from American Women

Read the Report:
bit.ly/CTKevidence

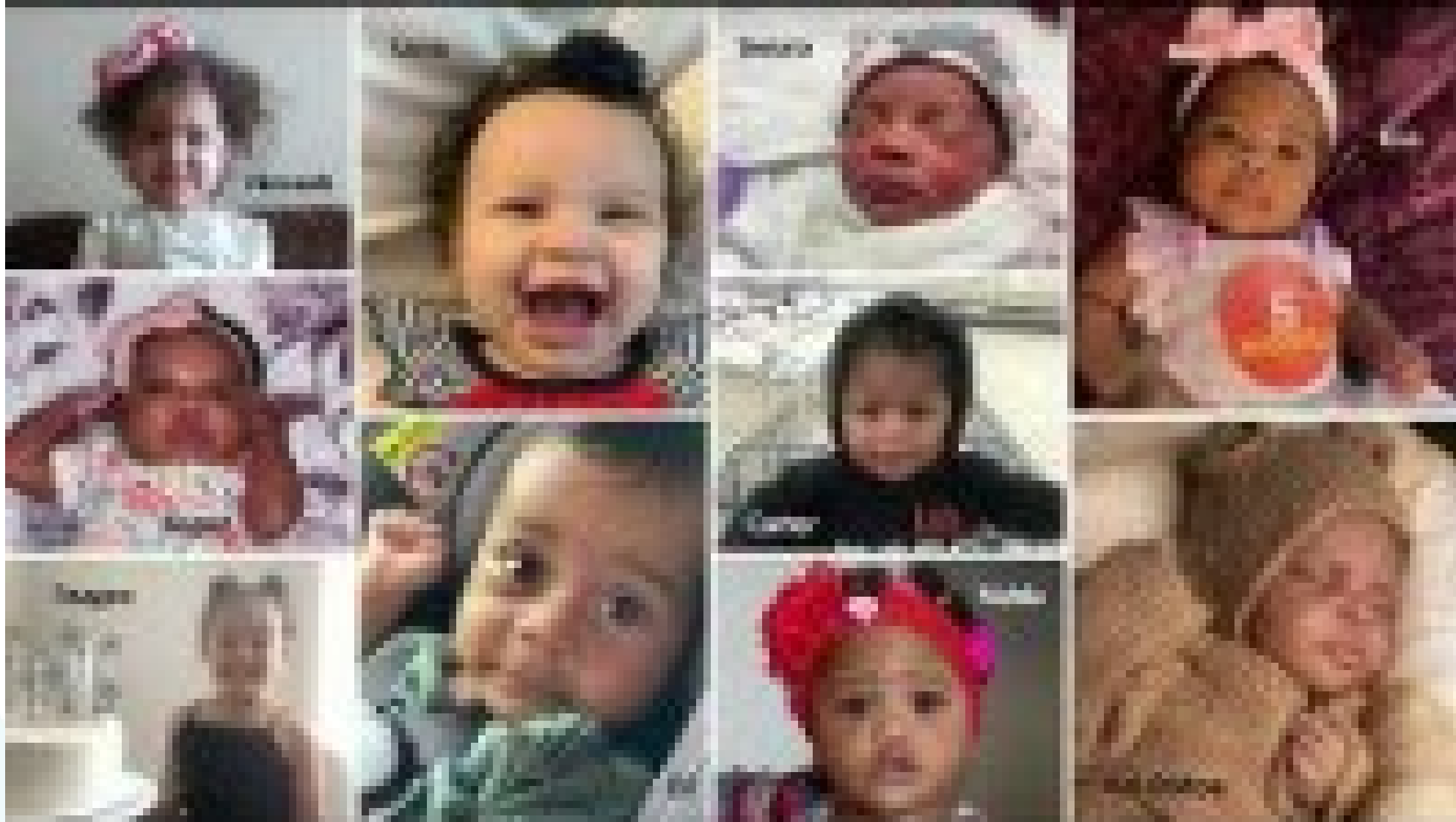
CountTheKicks.org

The cover features a line drawing of a pregnant woman's belly with a teal heart containing a footprint. A teal vertical bar is on the right side.

The report includes **firsthand accounts from women** who share how speaking up about a change in their baby's movement not only helped their baby have a safe arrival, but also **identified and addressed pregnancy complications** that put their own life at risk.

More than 15% of maternal deaths within days of delivery occur in women who experienced a stillbirth.







Count the Kicks Implementation





Download the FREE
Count the Kicks app today!

Our free app helps you remember
to count the kicks every day in the
3rd trimester.

- Easy-to-use interface that guides you through the app
- Reminders to count your kicks every day
- Ability to share your kick count with your healthcare provider

3rd trimester?

Start Counting!



Count the
Kicks



3rd trimester?



Start Counting!

Counting kicks is what you should do. It's important and easy too!
ASK HOW. ASK NOW.



Download the FREE
Count the Kicks® app today!

[counthekicks.org](https://www.counthekicks.org)

©2023 Healthy Birth Day, Inc.®
Count the Kicks® is a campaign of Healthy Birth Day, Inc.®, a 501(c)(3) organization dedicated to the prevention of stillbirth and infant death through education, advocacy and support.

This information is for educational purposes only and is not meant for diagnosis or treatment. Use of this information should be done in accordance with your healthcare provider.



The International Childbirth Education Association endorses Healthy Birth Day, Inc.®, and the Count the Kicks® stillbirth prevention campaign.

“Definitely pay attention to Count the Kicks. It’s important. Had not paid attention, Nahla wouldn’t be here.”
-Dana, Nahla’s mom

To read more stories of babies saved by Count the Kicks®, please visit www.CountTheKicks.org.

Download the FREE
Count the Kicks® app today!

Our free app helps you remember to Count the Kicks® every day in the 3rd trimester.

- 1 Easy-to-read graphs that show your baby’s strength and movement history.
- 2 Choose from 12+ languages.
- 3 Track movements for single babies and twins.
- 4 Download your sessions to share with your provider or family.
- 5 Daily reminders so you never forget to count.
- 6 Available on Apple Watch.

Helpful Tip: Always sleep on your side. Research shows this is the best position for mom and baby.

CountTheKicks.org

Download on the App Store | GET IT ON Google Play

3rd trimester?

Start Counting!

Count the Kicks® is a campaign of Healthy Birth Day, Inc.®, a 501(c)(3) organization dedicated to the prevention of stillbirth through education, advocacy and support. This information is for educational purposes only and is not meant for diagnosis or treatment. Use of this information should be done in accordance with your healthcare provider. ©2023 Healthy Birth Day, Inc.®. The International Childbirth Education Association endorses Healthy Birth Day, Inc.®, and the Count the Kicks® stillbirth prevention campaign.

Counting kicks is what you should do. It's important and easy too!

Here's How:
Starting at the 3rd trimester, begin counting.

- 1 Track your baby's movements with the FREE Count the Kicks® app or download a Count the Kicks® chart at counthekicks.org. App also available on Apple Watch.
- 2 Count kicks every day—preferably at the same time.
- 3 After a few days, you will begin to see a pattern for your baby—how long it takes your baby to get to 10 movements.
- 4 Call your provider right away if you notice a change in strength of movements or how long it takes your baby to get to 10 movements.

Download the FREE
Count the Kicks® app today

[counthekicks.org](https://www.counthekicks.org)

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Count the Kicks brochures, posters and app download reminder cards are available in English and Spanish for order on our website CountTheKicks.org



3rd Trimester?

Start counting your baby's kicks!



Counting kicks saves lives!

It's as easy as 1, 2, 3!



1 Count your baby's movements.



2 Know what is normal for your baby.



3 Call your provider if something changes.

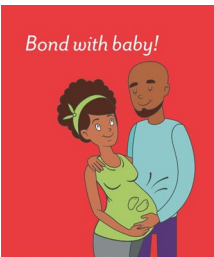
Download the **FREE** Count the Kicks app or track your baby's movements with a Count the Kicks chart at CountTheKicks.org



Download on the App Store

GET IT ON Google Play

At-a-glance educational materials.



Ease your mind.

Contact your provider if baby's movements have changed. Don't wait!



Every baby is different.



Start counting at 28 weeks!

Find baby's normal by counting every day.



Healthy babies take less than two hours to move 10 times.

Track baby's movements with the **FREE** Count the Kicks app or a printable Count the Kicks chart.



Download the app or printable kick chart for **FREE** today! CountTheKicks.org

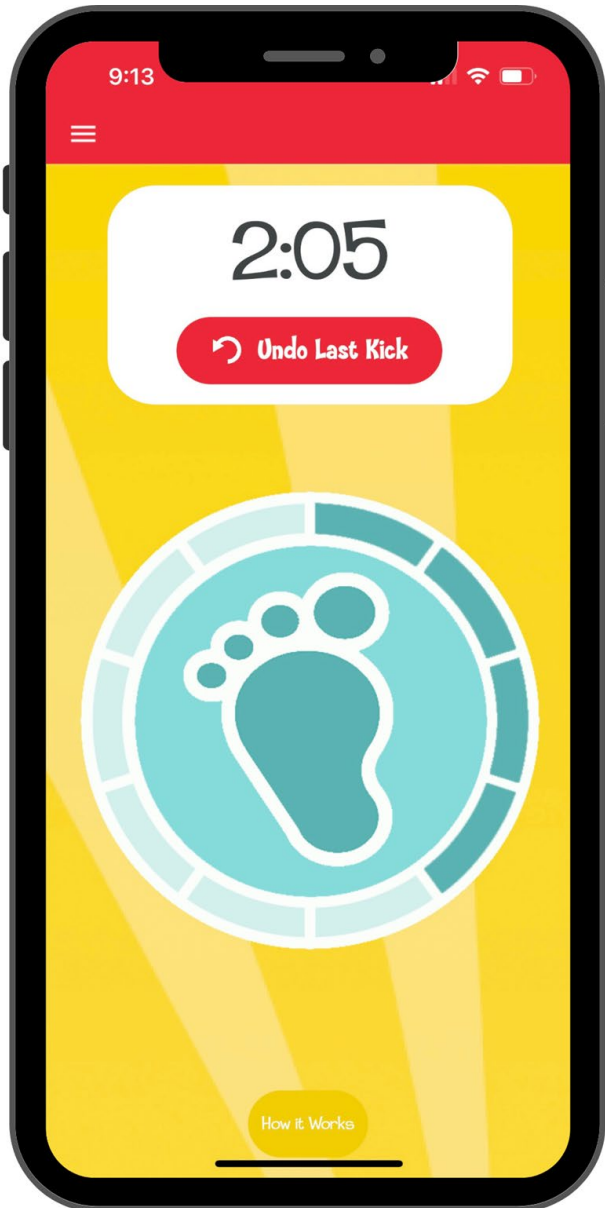
MOVEMENTS MATTER – Let's Start Counting!

When should a mom start counting movements?

- ACOG recommends beginning counting at 28 weeks gestation or 26 weeks if considered high risk or pregnant with multiples. This is when research indicates baby has established a consistent pattern that mom can feel and track.

What counts as a movement?

- Rolls, kicks, jabs, swishes, pushes – anything EXCEPT for hiccups (these are involuntary movements).



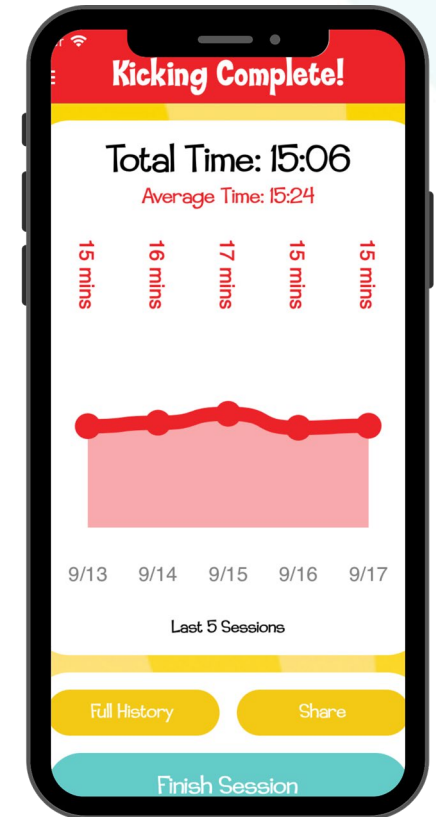
Apple and Android products, including Apple Watch

Set a daily reminder to *Count the Kicks*

Review your kick-counting history

Available in 16 languages

FREE and EASY to use!



4.8 out of 5 stars in app stores!



Health Equity at the Center



**Kick Counting
Bracelets**



App in 16 Languages

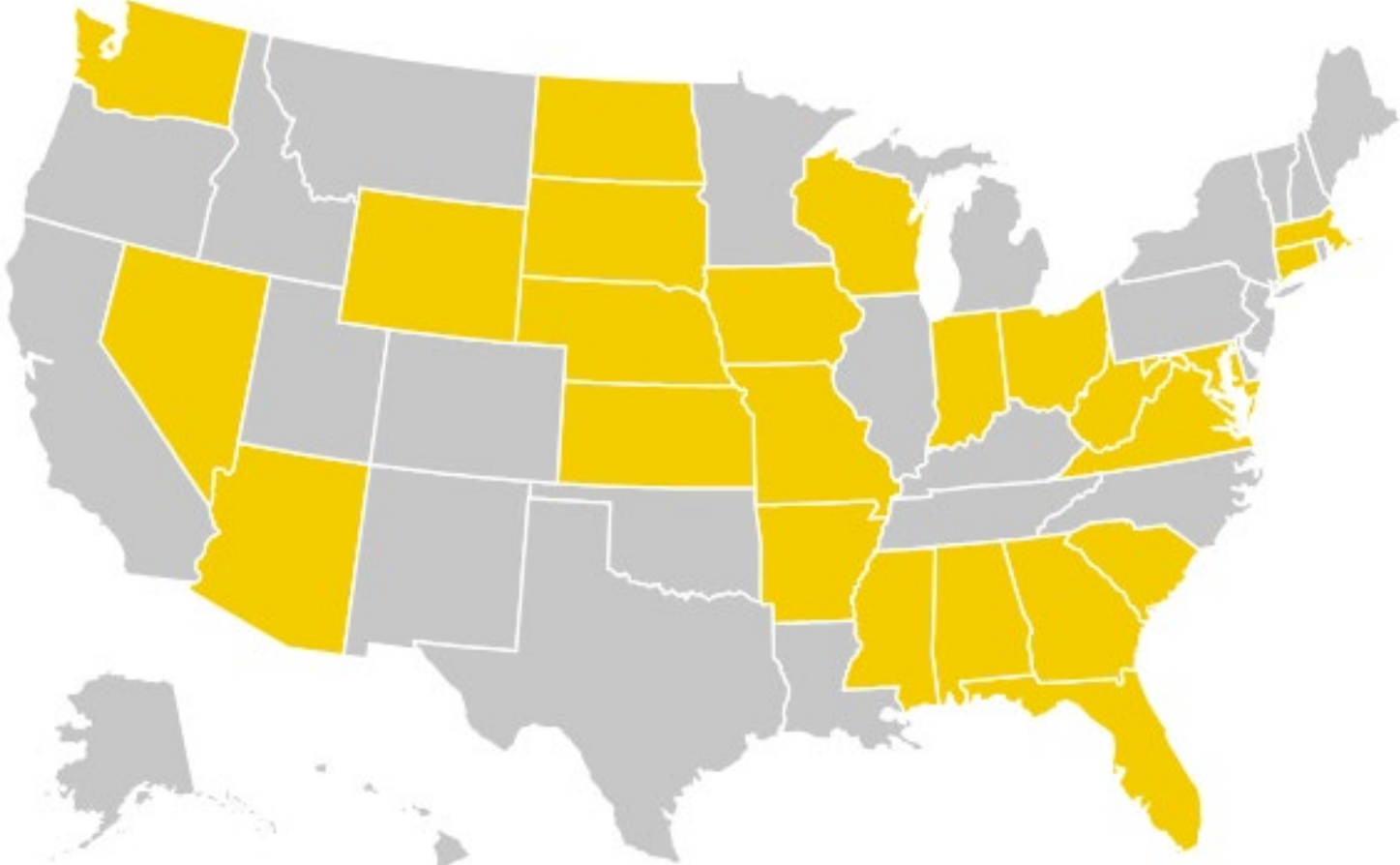


**Social Determinants
of Health Survey**



**Non-Traditional
Providers**

Count the Kicks States



Current Funding Partners in Each State

Alabama Department of Public Health

Arizona Department of Health Services

Arkansas Department of Health + University of Arkansas
for Medical Sciences

Elevance Health Foundation: California, Connecticut,
Florida, Georgia, Missouri, Virginia, Wisconsin

Florida Department of Health

Georgia Department of Public Health

Anthem Blue Cross and Blue Shield in Indiana

Illinois: Springfield Urban League

Iowa Department of Health and Human
Services

Kansas Department of Health & Environment

Maryland Patient Safety Center

Massachusetts Department of Public Health

Mississippi State Department of Health

Missouri Department of Health and Senior Services

Nebraska Perinatal Quality Care Collaborative

Nevada: SilverSummit Healthplan + Health Plan of Nevada

North Dakota Health and Human Services

United Healthcare in Ohio

South Carolina Department of Health and Environmental Control

South Dakota Department of Health

Washington Amerigroup Medicaid

West Virginia Department of Health and Human Resources

Wisconsin Department of Health Services

Wyoming Department of Health



Social Determinants of Health Survey on the *Count the Kicks* app

10:55

←

if you have a question about parenting, is there someone you can go to for positive parenting advice?

Yes

No

Next

10:55

←

Do you feel like you have healthy coping skills?

Yes

No

Next

10:55

←

If you answered NO to any of the questions, please visit the Iowa Family Support Network via the link below, or in the resources section of the app. You can access additional help and resources through this website. Remember, you are not alone!

Find Resources

Finish

Deliverable Offerings

How to use your Count the Kicks Wristband



Starting in the 3rd trimester start counting your baby's movements **DAILY**.

- Have a pen and paper handy
- Placing the black slider off the numbers then start a timer when you feel the first movement you want to count.
- Every time you feel a movement move the slider to the next number until you get to 10.
- Stop your timer
- Keep track of how long it gets your baby to get to 10 movements.
- After a few daily sessions you will start to see a pattern in your baby's movements!
- Keep track daily of how long it takes so you can notice if there is every a change in your baby's movements.
- Call your provider right away if you notice a change in the strength or length of those movements.

3rd trimester?
Keep Counting!

Remember to count your baby's kicks daily starting at 28 weeks!

DOWNLOAD APP

ALABAMA PUBLIC HEALTH

Download the **FREE** Count the Kicks App and start counting today!

CountTheKicks.org





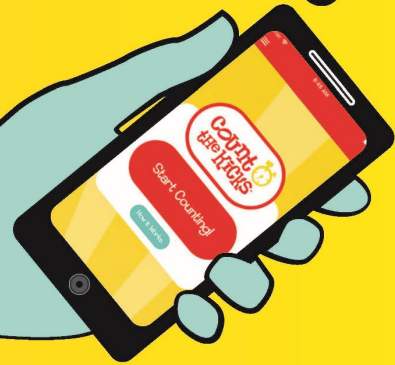
Talk to your provider about

Count the Kicks

CountTheKicks.org

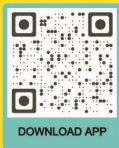


3rd trimester?



Start Counting!

Counting kicks is what you should do. It's important and easy too!
ASK HOW. ASK NOW.



Download the **FREE** **Count the Kicks**® app today!

 counthekicks.org

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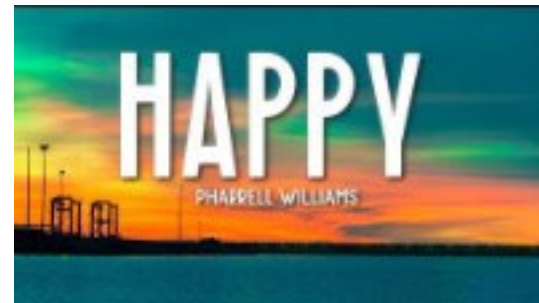
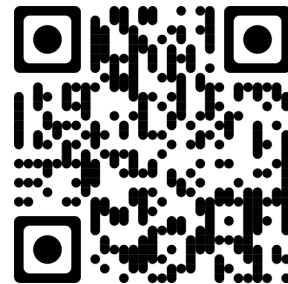


The International Childbirth Education Association endorses Healthy Birth Day, Inc.®, and the Count the Kicks® stillbirth prevention campaign.

Educational Materials

- ▶ Posters, brochures and app download card reminders in English and Spanish
- ▶ At-a-Glance Materials in some states
- ▶ Additional free resources like printable kick-counting charts
- ▶ FREE in 25 states, low cost in 25 states

www.CountTheKicks.org



CE Training: 2.25 CEs

The purpose of this educational activity is to train healthcare professionals how to talk to their patients about fetal monitoring and using best practices to track fetal monitoring.

► [Register Here:](#)

bit.ly/savebabiesCTK

[Savebabies-halfoff](#)



Save Babies With Us!

A Healthcare Professional's Guide on Talking to Expectant Parents about Count the Kicks and Fetal Monitoring!

Visit bit.ly/CTK-CE-Training to register today!





Ellis & Everly



Dean



Rocco



Liam



Clementine

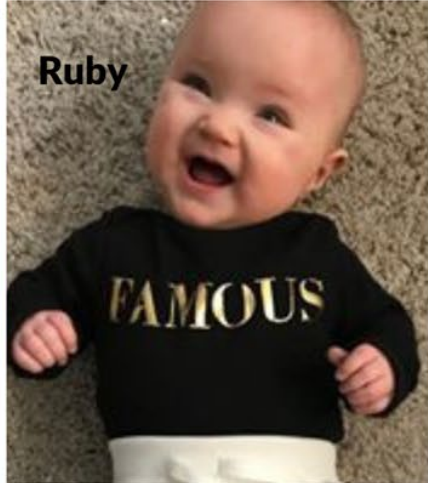


Nahla



Luna

Arya



Ruby



Eva



Cathryn



Daisy



Evren



Alexandra

We invite you to expand CTK in YOUR state!

Emily Price, Healthy Birth Day, Inc.

CEO

price.emily@healthybirthday.org

CountTheKicks.Org





Success Stories

South Carolina & Indiana Baby Saves

Panel Discussion



Placental Histopathology in Stillbirth

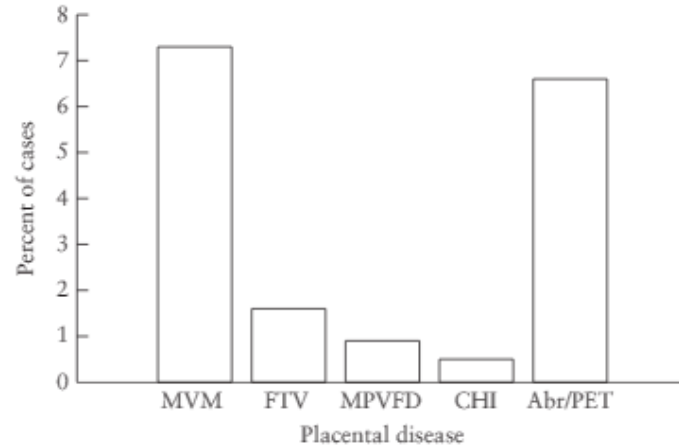


Figure 2 Relative frequencies of specific patterns of placental disease in 575 stillbirth cases in which the placenta was examined. Abr/PET, abruption/pre-eclamptic toxemia; CHI, chronic histiocytic intervillitis; FTV, fetal thrombotic vasculopathy/vascular occlusion; MPVFD, massive perivillous fibrin deposition; MVM, maternal vascular malperfusion.

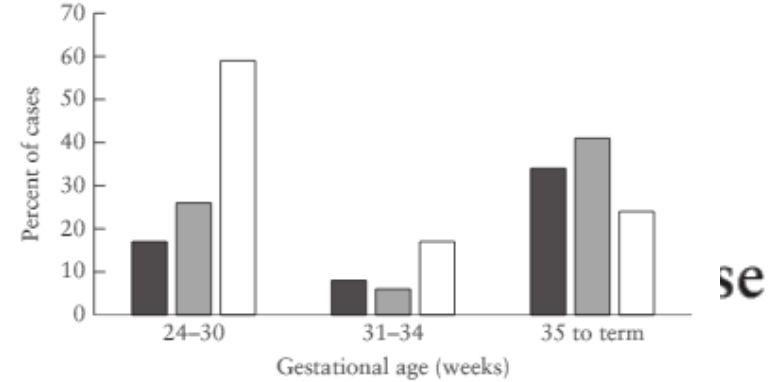


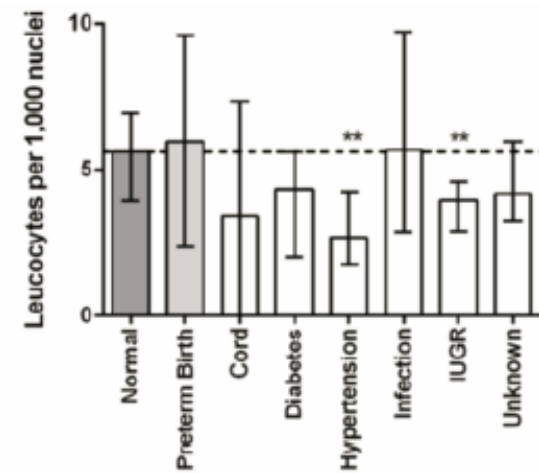
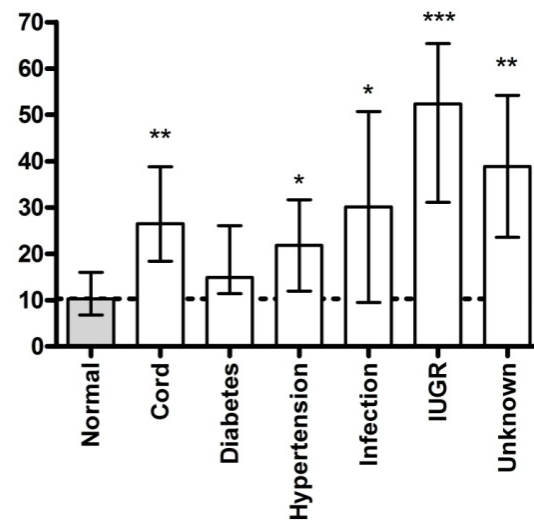
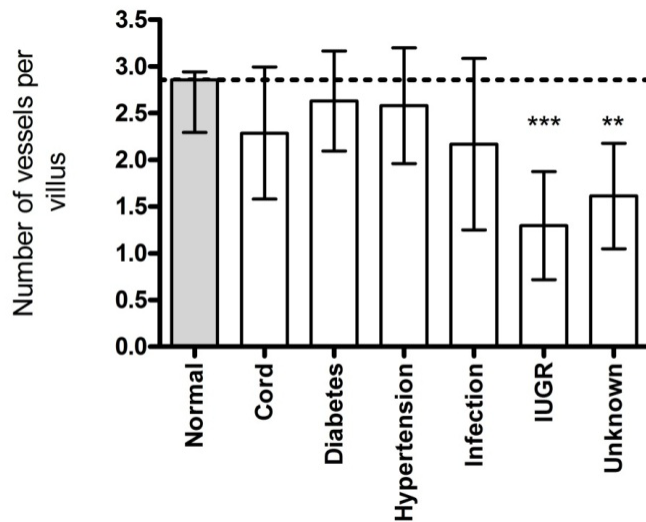
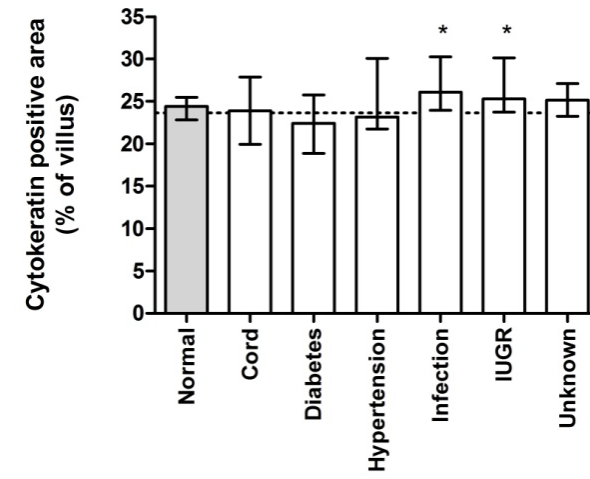
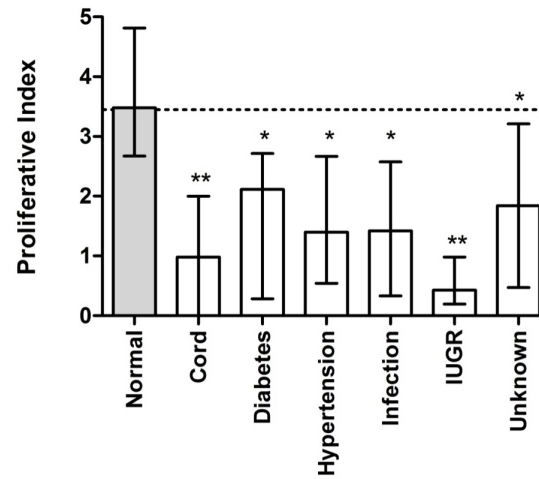
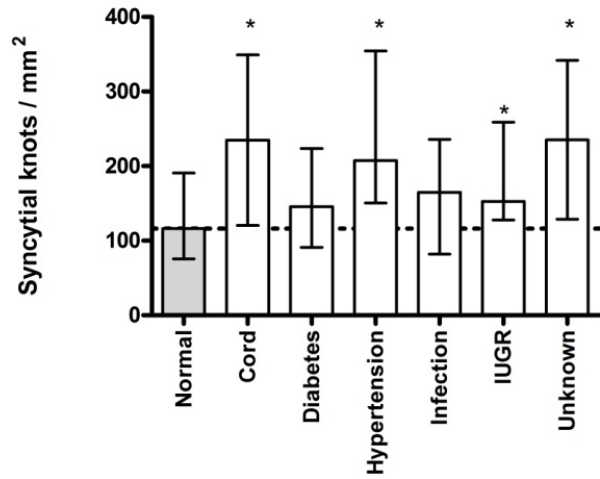
Figure 4 Relationship between gestational age and selected placental pathology categories, as percentage of total cases per group within each included gestational age category: unexplained cases with no risk factors or lesions (■); unexplained cases with placental histological lesion of unknown significance, e.g. patchy low-grade villitis of unknown etiology (▣); and maternal vascular malperfusion (MVM, □). MVM was relatively more common in the early third trimester, whereas lesions of uncertain significance were more common at term.

Table 1 Summary of histological findings of cord, membranes and placenta in 931 intrauterine deaths with complete placental histology results

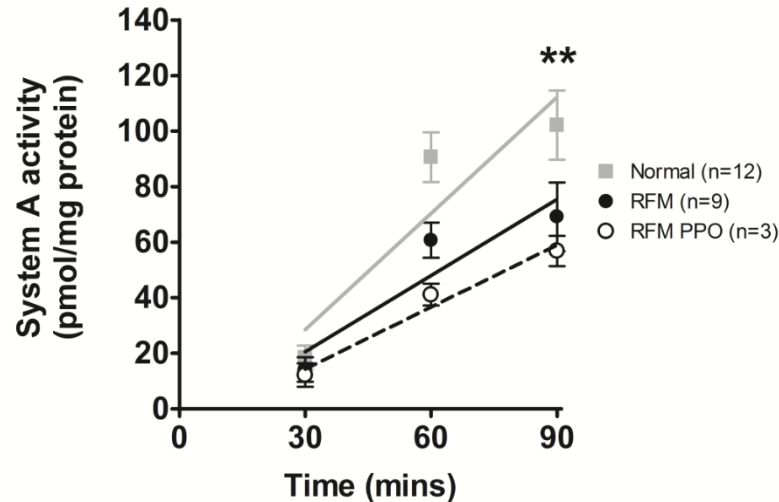
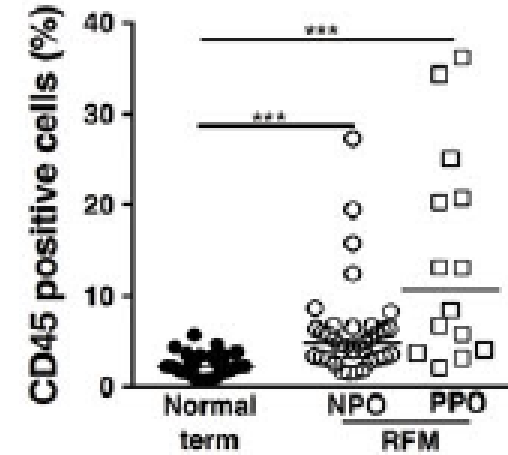
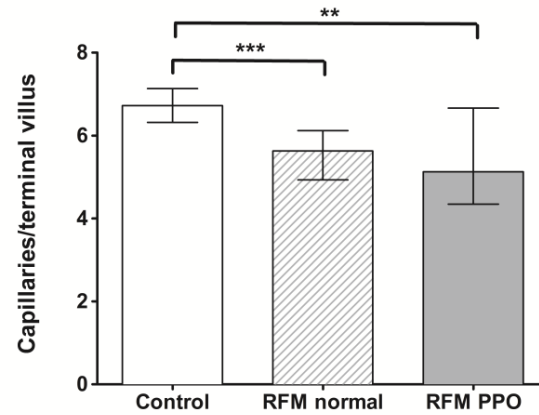
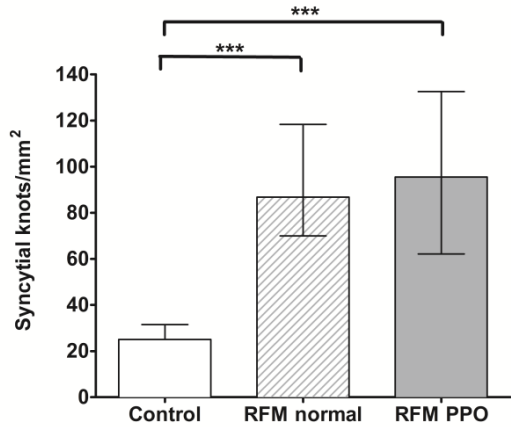
Histology	Early IUFD	Late IUFD	Stillbirth	All
Normal cord, membranes and placenta	94 (47)	70 (42)	172 (30)	336 (36)
Isolated abnormality in placenta	38 (19)	31 (19)	196 (34)	265 (28)
Isolated abnormality in cord or membranes	11 (6)	21 (13)	50 (9)	82 (9)
Placental abnormality with abnormality in membranes or cord	55 (28)	43 (26)	150 (26)	248 (27)
Total	198	165	568	931

Data are given as n (%) or n . Early intrauterine fetal death (IUFD) was defined as intrauterine death < 20 weeks, late IUFD was death at 20–23 weeks and stillbirth was death \geq 24 weeks. Fifteen cases with absent or incomplete placental histology have been excluded.

Placental Morphology in Stillbirth



RFM – A symptom of placental dysfunction



▶ Altered placental structure, inflammation and function in reduced fetal movements



Retrospective analysis of stillbirths associated with RFM

- ▶ Exploration of database of perinatal deaths at SMH 2010 – 2017
- ▶ Neonatal deaths and terminations of pregnancy (TOP), fetal deaths <24 weeks were excluded.
- ▶ Included 283 antepartum and 18 intrapartum stillbirths
- ▶ 142 women (47.2%) had AFM or RFM, 159 had no evidence

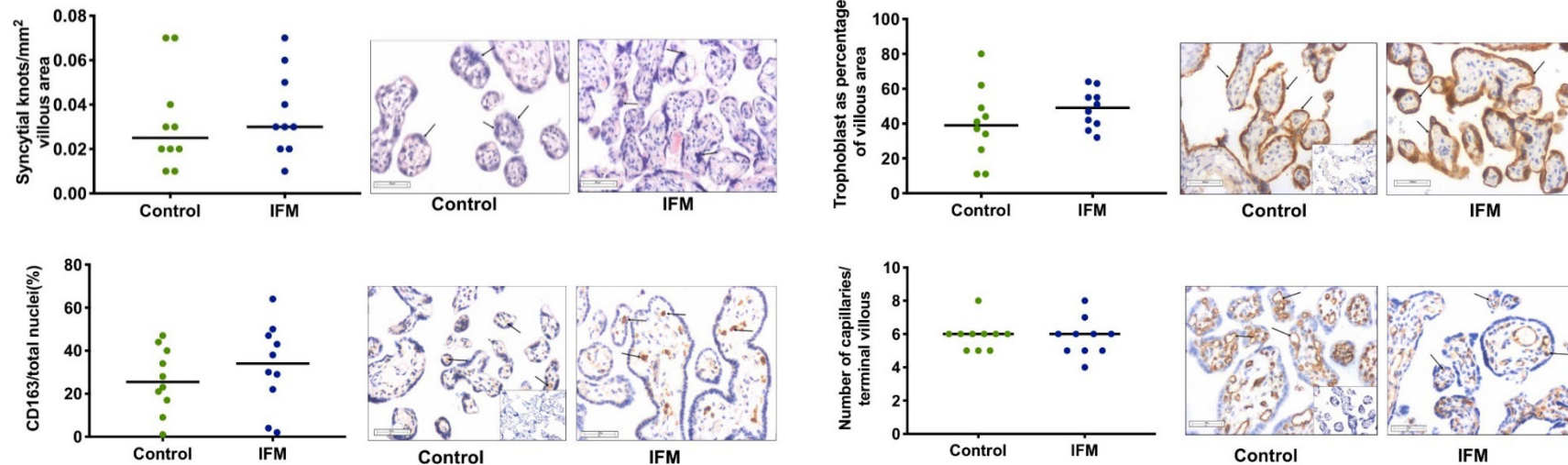
Multivariable Logistic regression

- ▶ Stillbirths preceded by RFM:
 - ▶ **Placental insufficiency** more frequently as ReCoDe (aOR 2.8, 95% CI 1.6-5.0)
 - ▶ Less frequently had proteinuria (aOR 0.2, 95% 0.1-0.5)
 - ▶ Less frequently had previous pregnancy loss <24w (aOR 0.2, 95% CI 0.1-0.6)
- ter Kuile et al. J Perinatal Medicine 2021 Jul 15;50(6):668-677.

Placental findings in IFM



Macroscopic Characteristic	IFM (n=32)	Control (n=26)	p value
Trimmed placental weight (g) ^Δ	494 (±95.87)	541.4 (±116.9)	<i>p</i> =0.1
Placental surface area (cm ²) ^Δ	271.8 (±67.2)	251.5 (±69.5)	<i>p</i> =0.26
Coiling Index (coils/cord length) [*]	0.16 (0-0.3)	0.18 (0-0.5)	<i>p</i> =0.39



- No abnormalities of placental or cord seen in women who reported IFM

Next Steps

Implement *Count the Kicks*

Contact us

Price.Emily@healthybirthday.org, CEO

Take the online CE Training

Order educational materials





Question & Answer



Thank You!

www.countthekicks.org

www.healthybirthday.org



References

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