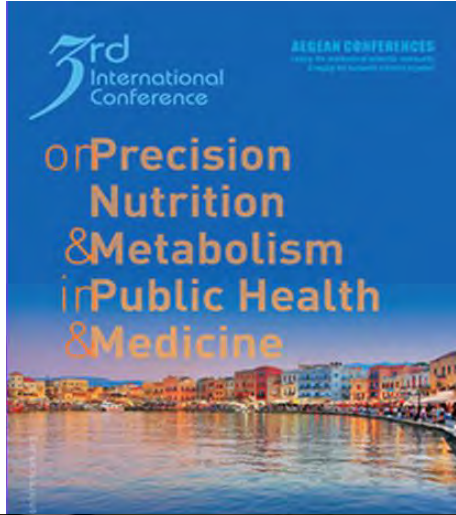


Healthy Moms and Babies Across Texas

March 3, 2023

Patrick Stover, Ph.D.
and
Regan Bailey, Ph.D., R.D.





*The
Dallas
Morning
News*



The National Academies of
SCIENCES • ENGINEERING • MEDICINE



BILL & MELINDA
GATES foundation



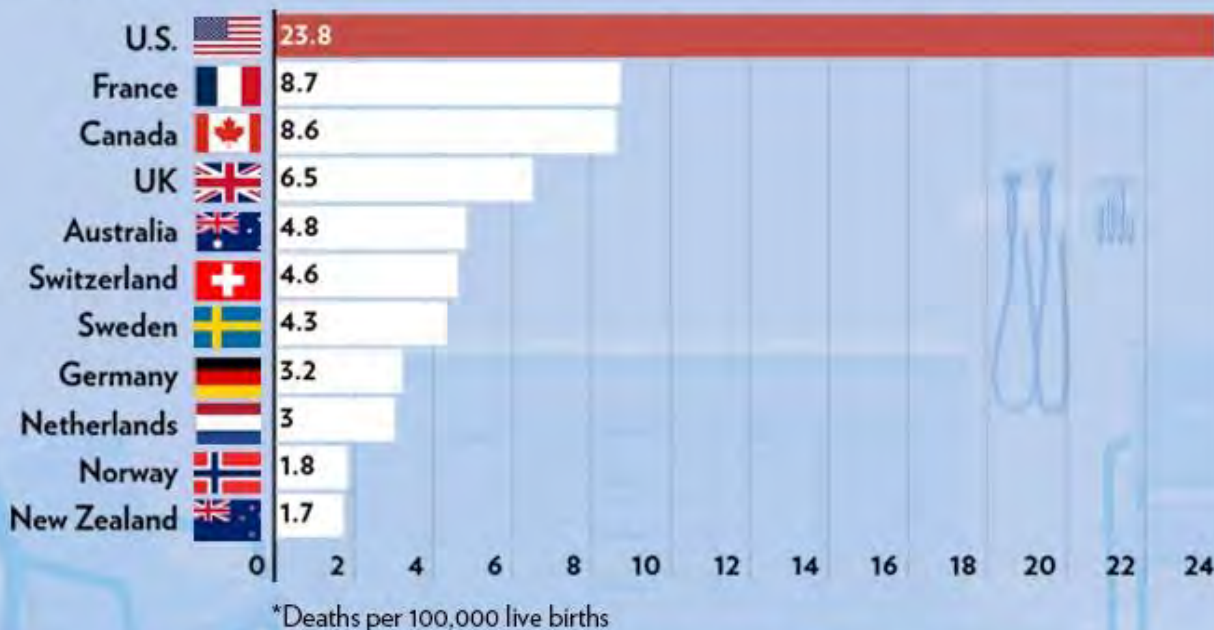
“Economies are centered around three resources: natural, human and capital.

Texas built three unbelievable empires on one of those things, and that's natural resources, but the next empire is going to be built on human resources... the real population growth in Texas is big Texans making little Texans.”

- Texas A&M Chancellor John Sharp

The U.S. is failing moms and babies and it is getting worse over time, not better.

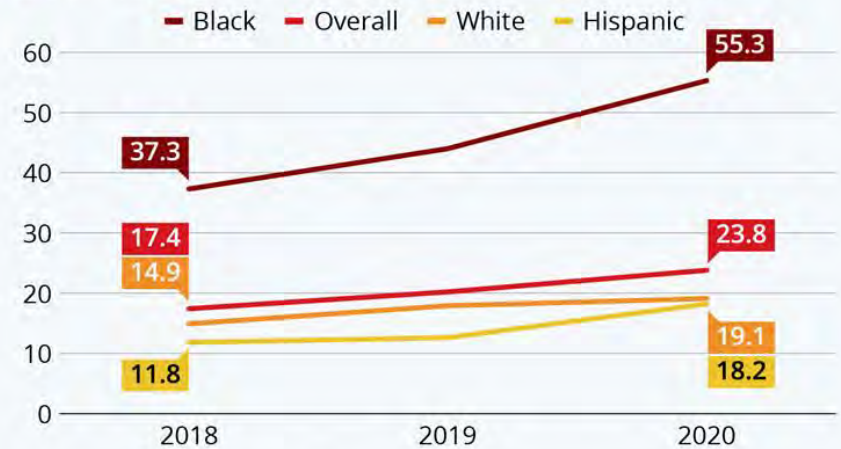
Maternal Mortality in the U.S. Far Outstrips That of Other Industrialized Nations



Source: <https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2020/maternal-mortality-rates-2020.htm>

The Uneven Burden of U.S. Maternal Mortality

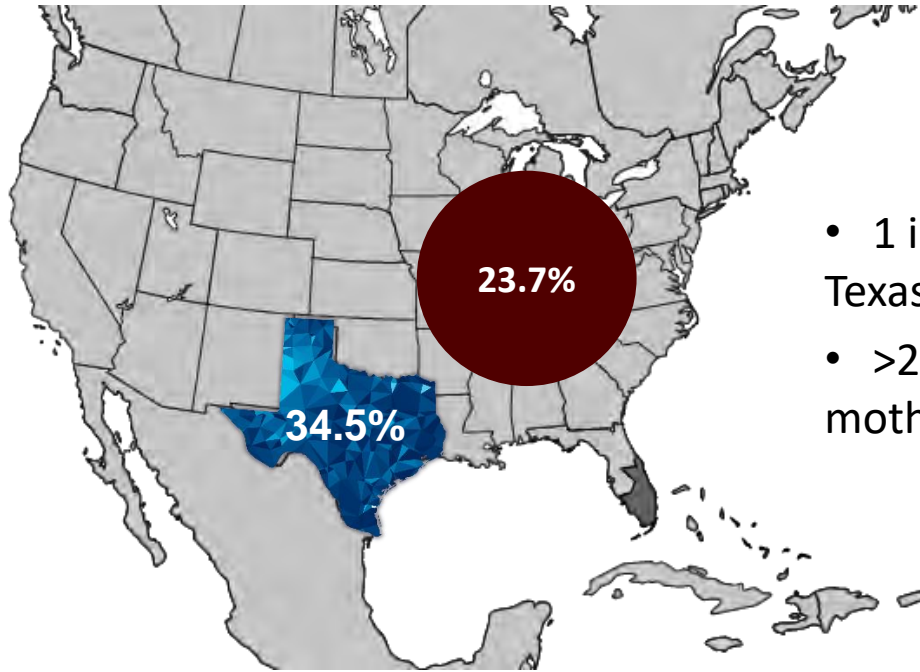
Pregnancy-related deaths in the United States per 100,000 live births (by race/ethnicity of mother)



Non-Hispanic Black/white mothers
Sources: CDC, National Vital Statistics System



Texas moms are dying.



- 1 in 10 US babies born in Texas
- >200 children without a mother

**Maternal Mortality Rate
(Deaths per 10,000 Births)**

Higher than Cuba, Mexico and Uzbekistan



The Challenge: Maternal Mortality Impacts Babies



Poor birth outcomes

- Texas has one of the nation's highest rates of poor birth outcomes (preterm birth rate of 10.8% statewide, 14.6% for Black mothers in Texas).
- 1 in 9 babies are born too soon in Texas.

Childhood obesity

- Texas ranks highest among the U.S. states and territories in childhood obesity with 20.3% of children ages 10-17 considered obese.
- In Texas alone, obesity costs businesses \$11 billion per year, and that is expected to reach \$30 billion by 2030.

The Challenge: Maternal Mortality Impacts Babies

We Believe it Doesn't Have to be This Way

e, 14.6%

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Environment Special:
The oceans—why 70%
of our planet is in danger

The Facebook Movie:
The secret history of
social networking

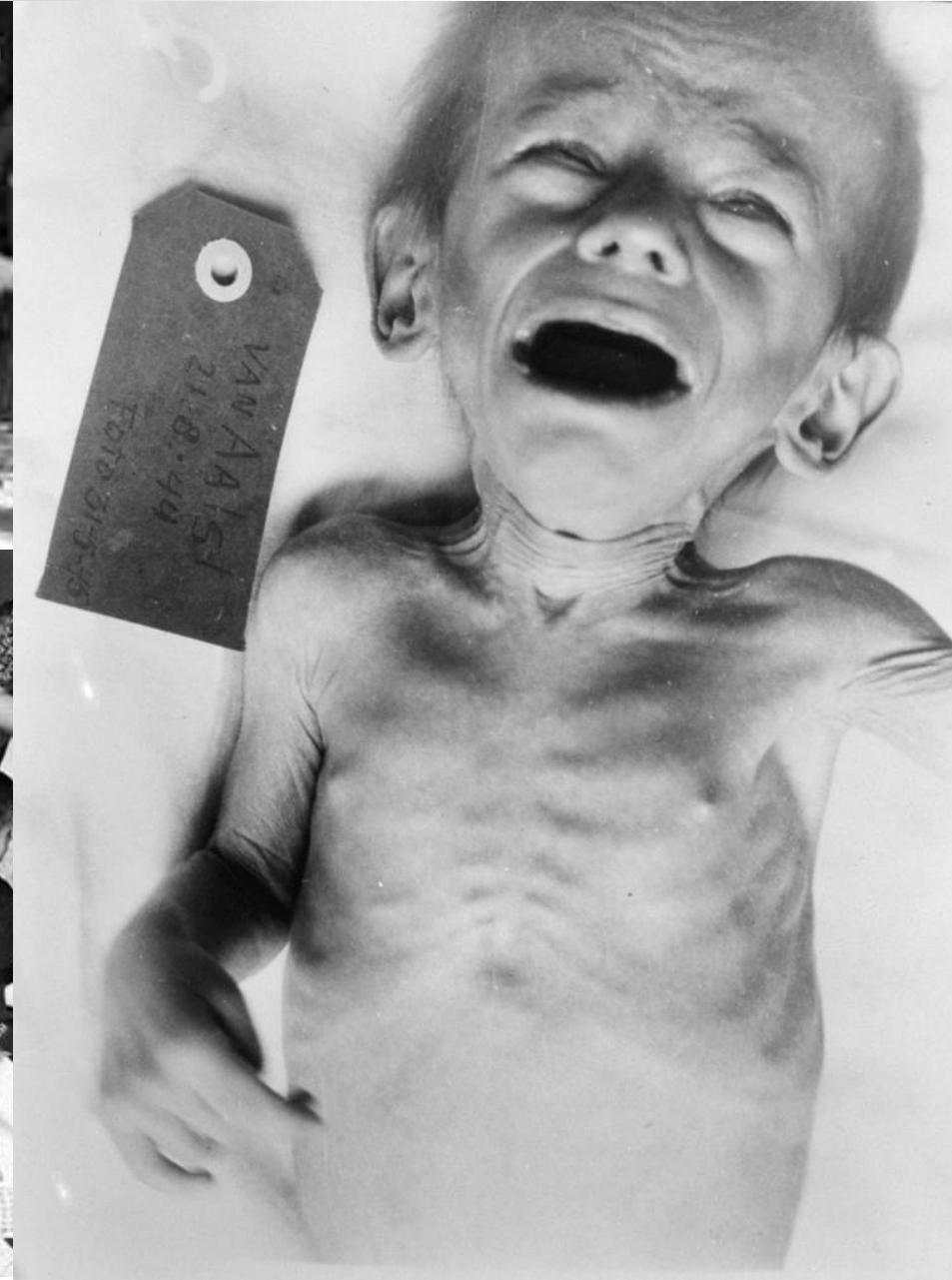
TIME

How the first nine months shape the rest of your life

The new science
of fetal origins

BY ANNIE MURPHY PAUL



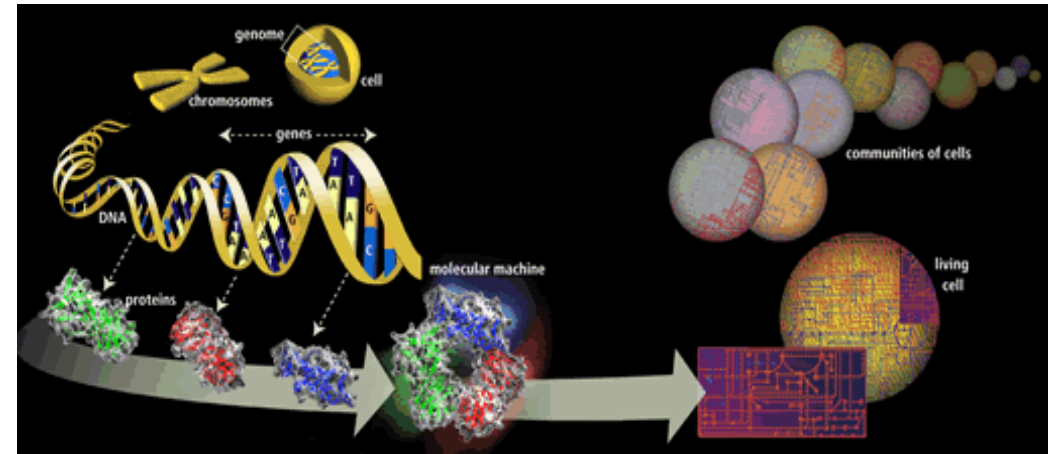
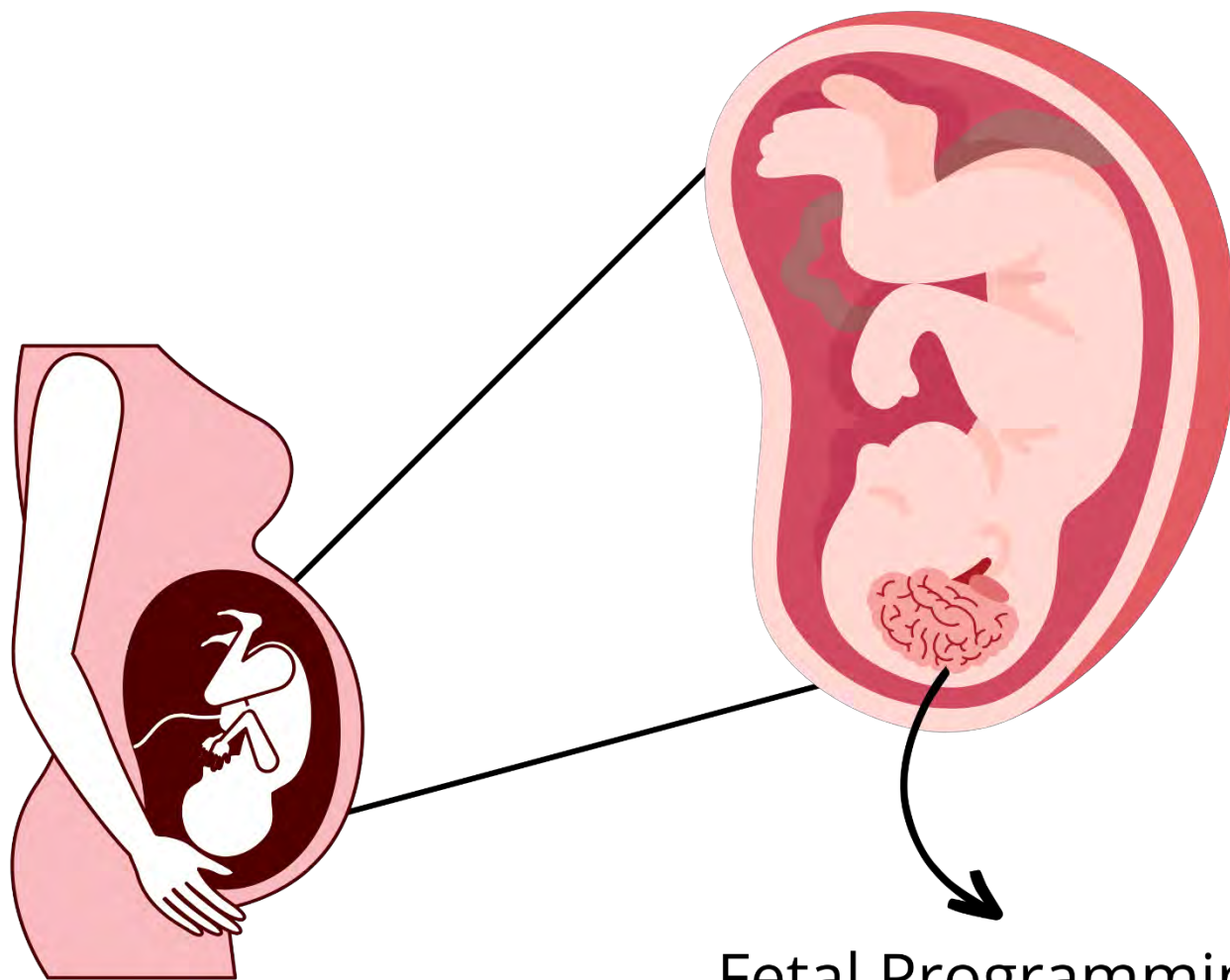


The Dutch Famine and Neuroscience

By: Lauren Ring



Photo Source: [Wikipedia](https://www.wikipedia.org/)



CHOLINE

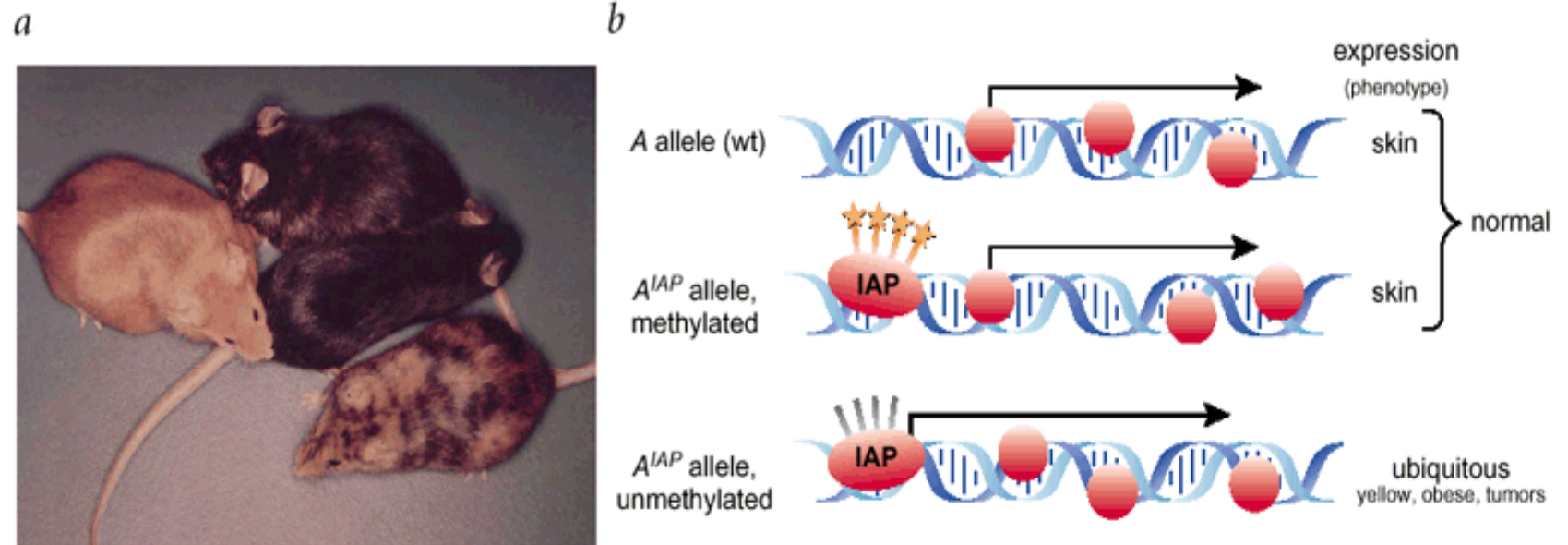


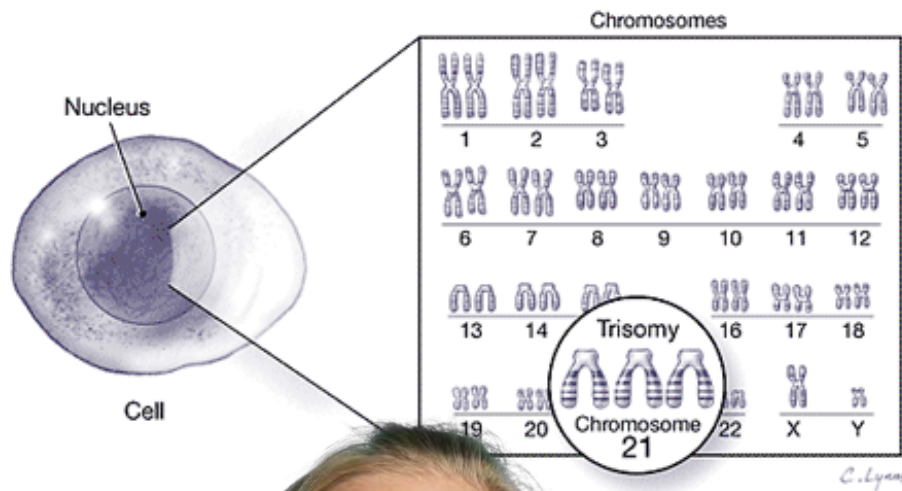
Are you what you eat? Or are you what your mother ate?

CHOLINE

Mom's Diet
Determines

- Coat Color
- Obesity
- Cancer in Offspring





Ts65Dn mouse model of Down Syndrome



Maternal nutrition during pregnancy will program the baby's life-long health, including:

- Childhood Obesity
- Stress/Anxiety
- Diabetes and Other Metabolic Disease
- Appetite
- Emotional Brain Function/ Addiction/Aggression
- Cognitive Brain Function

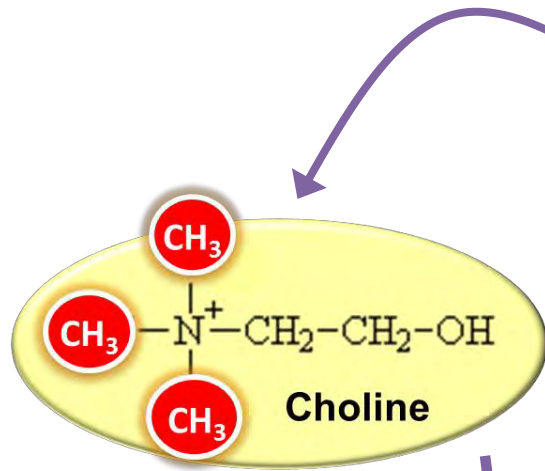


Maternal nutrition during pregnancy will program the baby's life-long health, including:

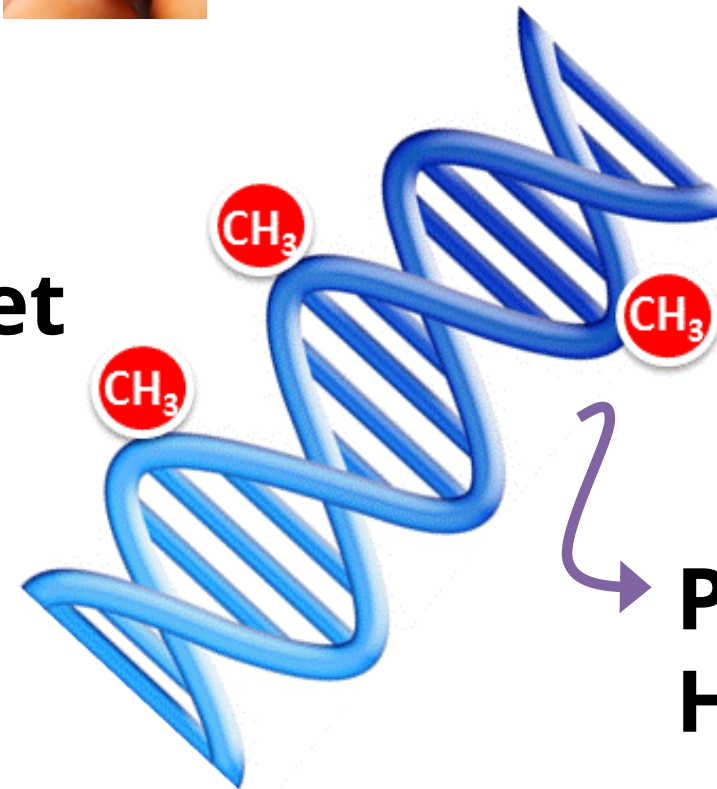
Does it Work for Humans?

- Appetite
- Emotional Brain Function/ Addiction/Aggression
- Cognitive Brain Function





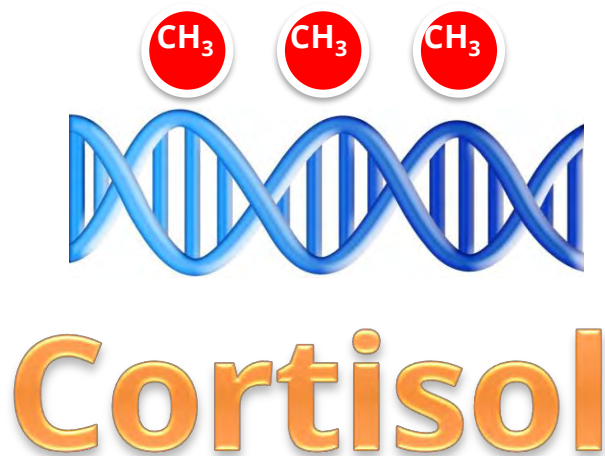
Maternal Diet



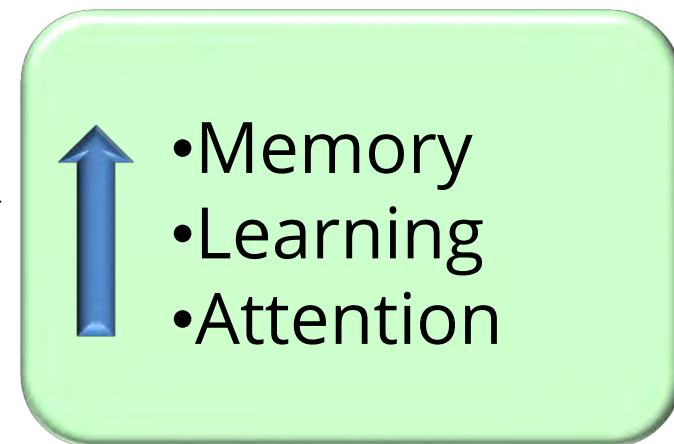
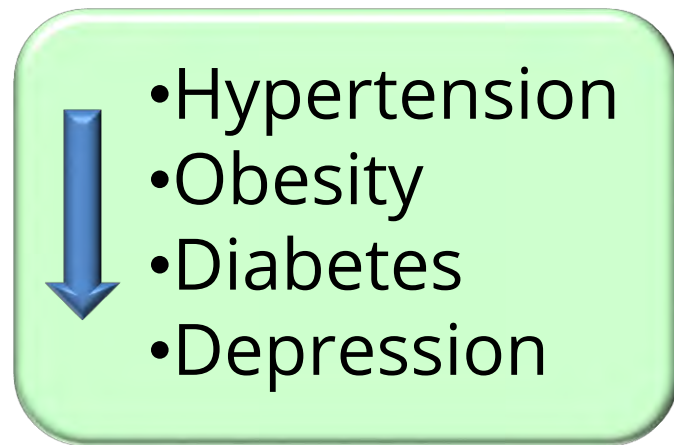
**Proteins
Hormones**

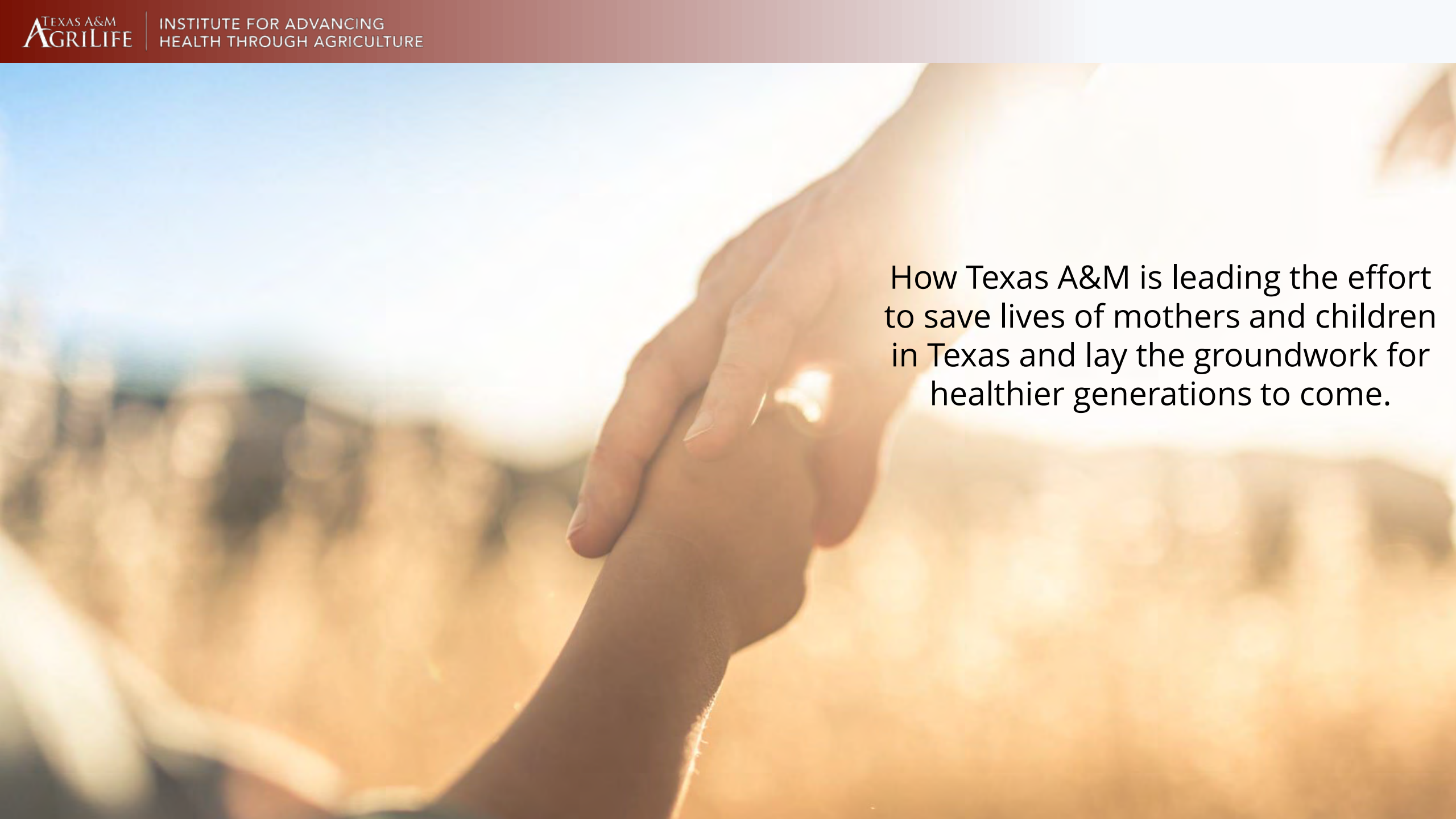


Supplementing the
Diet with Extra
Choline



"Choline" Baby





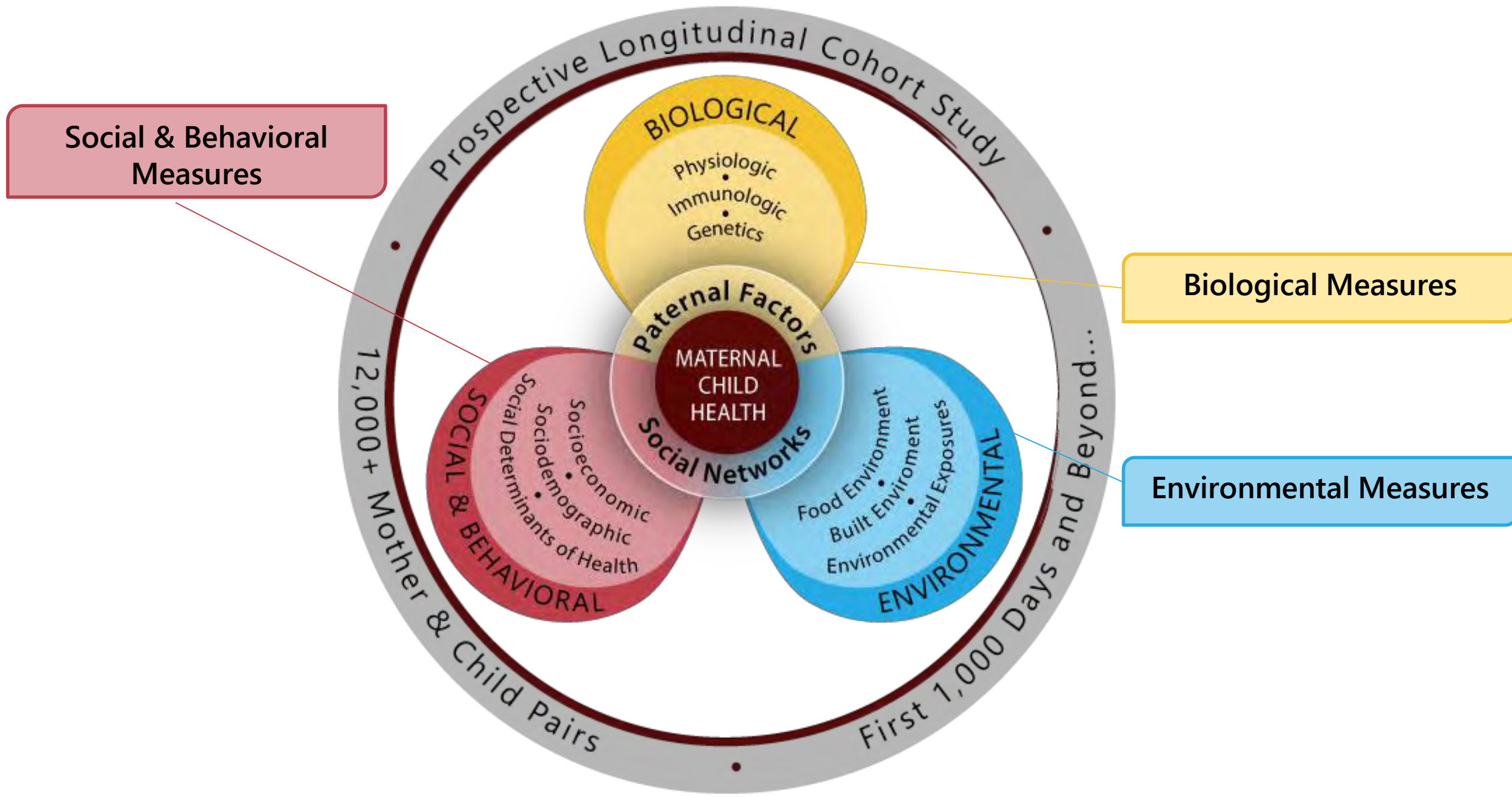
How Texas A&M is leading the effort to save lives of mothers and children in Texas and lay the groundwork for healthier generations to come.

Cohort of Mothers/Madres In Texas (COMMIT)



A comprehensive, dedicated study of mothers, their children, and families across the lifespan.








Mobile Health Assessment Centers (MHACs)

Reaching Across Texas

- Clinical assessment space
- Exam rooms
- Phlebotomy stations
- Lab counters
- Indoor and outdoor kitchens
- Live-stream and recording
- Fully autonomous
- Large and small (urban) units



Why Texas?

A nighttime photograph of the Fort Worth skyline, featuring several illuminated skyscrapers and city lights. The lights are reflected in a body of water in the foreground, creating a blurred, vertical reflection effect. The sky is a deep blue.

Ft. Worth is the Ideal
Hub for This...

Texas Leads – The Time is Now



Thank You

TEXAS A&M
AGRI LIFE

INSTITUTE FOR ADVANCING
HEALTH THROUGH AGRICULTURE

