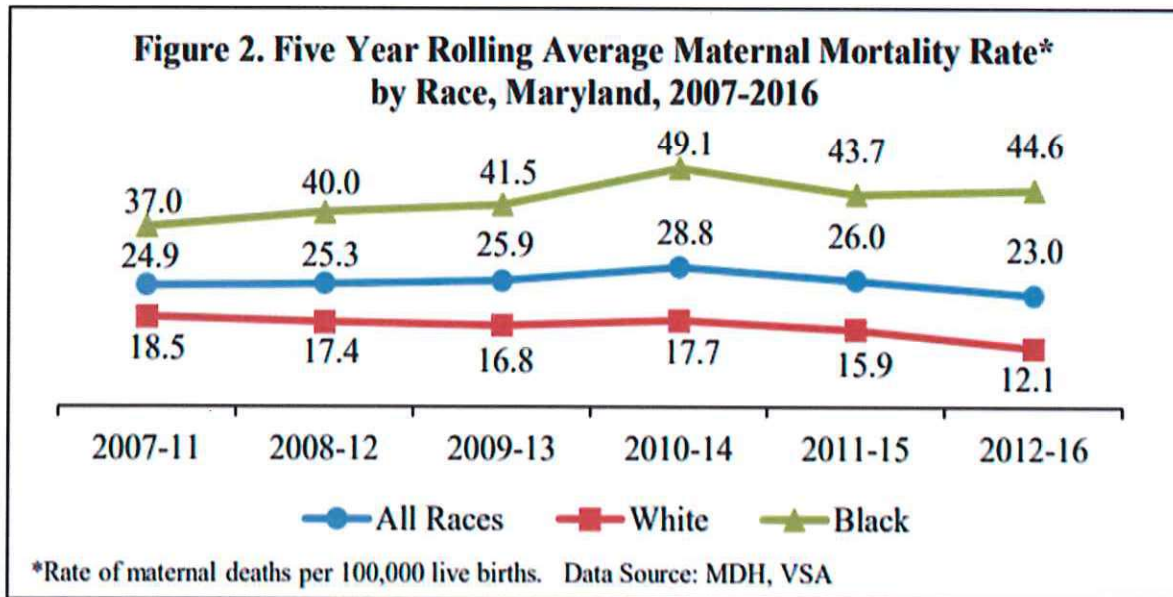




To: The Honorable Chair, Delegate Shane E. Pendergrass
 From: Melissa S. Rock, Birth to Three Strategic Initiative Director
 Re.: **HB 286: Public Health - Maternal Mortality Review Program - Stakeholders**
 Date: February 5, 2020
 Position: **SUPPORT**

While the number of women who die related to childbirth is quite low, the maternal mortality rate in the United States is significantly higher than most other developed nations. Maryland's racial disparities are a public health crisis that need immediate attention. According to the State's Maternal Mortality Review Program, "compared to 2007- 2011, the 2012-2016 White MMR in Maryland **decreased 34.6 percent** and the Black MMR **increased 20.5 percent**, increasing the racial difference. The 2012-2016 Black MMR is 3.7 times the White MMR." (Emphasis Added.)



The Maternal Mortality Review (MMR) Program is the statewide group that reviews deaths of pregnant individuals within one year of giving birth. This committee has 22 members, only one of whom (the MMR Program director) is not a medical provider. In 2018, this body passed [HB 1518](#) which created a MMR Stakeholder Group.ⁱⁱ As stated on the Maryland Department of Health's webpage for the MMR Stakeholder Group, it is "charged with **examining issues resulting in disparities in maternal deaths**, reviewing the status of implementation of previous recommendations, and **identifying new recommendations with a focus on initiatives to address disparities in maternal deaths.**"ⁱⁱⁱ (Emphasis Added.) Given that a primary purpose of this group is to address

the racial disparities in maternal mortality, it is crucial that its members reflect the demographics of women most impacted by maternal mortality across Maryland.

There are many factors that are driving the racial disparities in health outcomes for Black individuals, like exist with maternal mortality. One contributing factor for poorer health outcomes for Black people in America is epigenetics. We now understand that trauma from one generation gets imprinted on that person's genes, which then gets passed down through generations. I've attached an infographic from the Harvard Center on the Developing Child explaining epigenetics. There is also increasing evidence that medical providers treat and respond to Black patients differently than White patients due to both explicit and implicit bias. It is critical that the MMR Stakeholder Group includes Black women who can speak to their experiences and how different those experiences are than White patients' experiences.

By passing HB 286, we will be more likely to lower the racial disparities in maternal mortality by having an MMR Stakeholder Group most well equipped to address the issues driving the racial disparities therein.

ⁱ "Maryland Maternal Mortality Review 2018 Annual Report," Health –General Article § 13-207 at p. 6. <https://phpa.health.maryland.gov/documents/Health-General-Article-%C2%A713-1207-2018-Annual-Report-Maryland-Maternal-Mortality-Review.pdf>

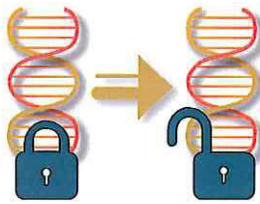
ⁱⁱ Advocates had tried unsuccessfully to expand the MMR Program to include people directly impacted by maternal mortality as well as community service programs that work to combat maternal mortality, and this MMR Stakeholder Group was created as an alternative.

ⁱⁱⁱ <https://phpa.health.maryland.gov/mch/Pages/mmr.aspx>

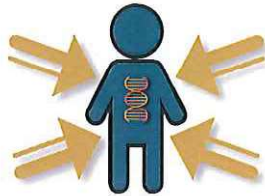
WHAT IS EPIGENETICS?

AND HOW DOES IT RELATE TO CHILD DEVELOPMENT?

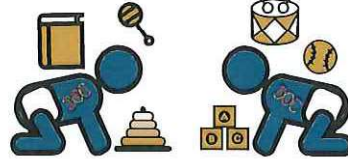
"Epigenetics" is an emerging area of scientific research that shows how environmental influences—children's experiences—actually affect the expression of their genes.



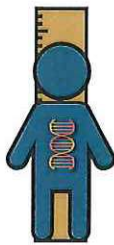
During development, the DNA that makes up our genes accumulates chemical marks that determine how much or little of the genes is expressed. This collection of chemical marks is known as the "epigenome." The different experiences children have rearrange those chemical marks. This explains why genetically identical twins can exhibit different behaviors, skills, health, and achievement.



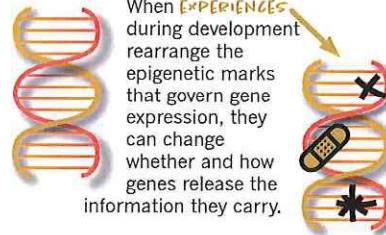
This means the old idea that genes are "set in stone" has been disproven. Nature vs. Nurture is no longer a debate. It's nearly always both!



EPIGENETICS EXPLAINS HOW EARLY EXPERIENCES CAN HAVE LIFELONG IMPACTS.

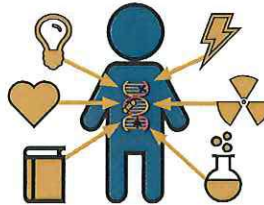


The genes children inherit from their biological parents provide information that guides their development. For example, how tall they could eventually become or the kind of temperament they could have.



When **EXPERIENCES** during development rearrange the epigenetic marks that govern gene expression, they can change whether and how genes release the information they carry.

Thus, the epigenome can be affected by positive experiences, such as supportive relationships and opportunities for learning...

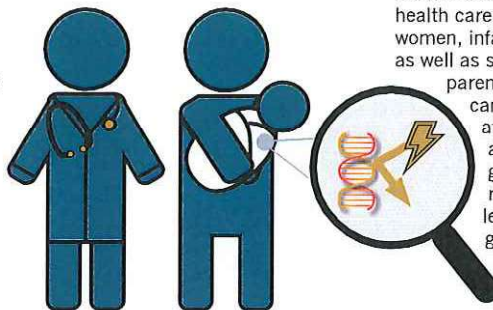


... or negative influences, such as environmental toxins or stressful life circumstances ...

... which leave a unique epigenetic "signature" on the genes. These signatures can be temporary or permanent and both types affect how easily the genes are switched on or off. Recent research demonstrates that there may be ways to reverse certain negative changes and restore healthy functioning. But the very best strategy is to support responsive relationships and reduce stress to build strong brains from the beginning.

YOUNG BRAINS ARE PARTICULARLY SENSITIVE TO EPIGENETIC CHANGES.

Experiences very early in life, when the brain is developing most rapidly, cause epigenetic adaptations that influence whether, when, and how genes release their instructions for building future capacity for health, skills, and resilience. That's why it's crucial to provide supportive and nurturing experiences for young children in the earliest years.



Services such as high-quality health care for all pregnant women, infants, and toddlers, as well as support for new parents and caregivers can—quite literally—affect the chemistry around children's genes. Supportive relationships and rich learning experiences generate positive epigenetic signatures that *activate* genetic potential.