TEXAS NURSES ASSOCIATION

MATERNAL MORTALITY AND MORBIDITY

2018-2019 Policy Positions

The Centers for Disease Control and Prevention (CDC) defines maternal mortality as "the death of a woman while pregnant or within 1 year of the end of a pregnancy … from any cause related to or aggravated by the pregnancy or its management…"

In 2018, Texas's Maternal Mortality and Morbidity Task Force—a group within the Texas Department of State Health Services (DSHS)—updated 2012 mortality data to show that Texas had a maternal mortality rate of 14.6 deaths per 100,000 live births.[1] While this number is much lower than initial estimates, it is still an alarmingly high number compared to the rest of the Western world.[2]

- Britain: 9.2 per 100,000 live births
- Australia: 5.5 per 100,000 live births
- Finland: 3.8 per 100,000 live births

Fewer than half of rural women live within a 30-minute drive of the nearest hospital.[3] Since 2013, 14 rural hospitals across Texas have closed, and less than half of those that remain have the ability to deliver babies.[4] The CDC estimates that in 2015, the maternal mortality rate in large central metropolitan areas was 18.2 per 100,000 live births, but in rural areas it was 29.4.[5]

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[1] Baeva, S., Saxton, D. L., Ruggiero, K., Kormondy, M. L., Hollier, L. M., Hellerstedt, J., Hall, M., & Archer, N. P. (2018). Identifying Maternal Deaths in Texas Using an Enhanced Method, 2012. *Obstetrics & Gynecology, 131(5),* 762-769. Retrieved from https://journals.lww.com/greenjournal/Citation/2018/05000/Identifying_Maternal_Deaths_in_Texas_Using_an.3.aspx.

[2] Shennan, A. H., Green, M., & Chappell, L. C. (2017). Maternal deaths in the UK: pre-eclampsia deaths are avoidable. *The Lancet, 380(10069),* 582-584. Retrieved from https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)30184-8/fulltext.

[3] American College of Obstetricians and Gynecologists (2014). Health disparities in rural women. Committee Opinion No. 586. *Obstetrics and Gynecology, 123,* 384–388. Retrieved from: https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Health-Disparities-in-Rural-Women.

[4] Evans, M. (2018) A shrinking number of rural Texas hospitals still deliver babies. Here's what that means for expecting moms. The Texas Tribune. Retrieved from https://www.texastribune.org/2018/01/17/shrinking-number-rural-texas-hospitals-still-deliver-babies-heres-what/

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

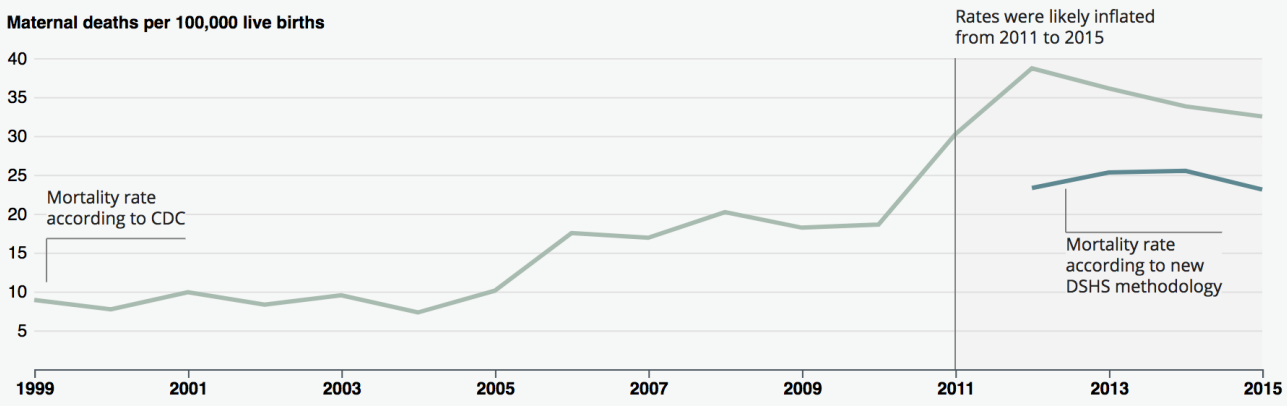
Local and state maternal mortality review committees (MMRC) are positioned to assess maternal deaths and identify opportunities for prevention. Nine state MMRCs estimated that over 60% of pregnancy-related deaths are preventable and that nearly 50% of all pregnancy-related deaths were caused by hemorrhage, cardiovascular and coronary conditions, cardiomyopathy, or infection, including sepsis. These causes of death were confirmed as the leading pregnancy-related causes of death in Texas in a September 2018 Maternal Mortality and Morbidity Task Force report.[6]

African-American women are at the highest risk of dying during or after pregnancy in Texas, with a mortality rate of 13.9 per 100,000 live births versus 6.0 for white women and 9.3 for Hispanic women.[6]

Medicaid pays for 45% of all births in the United States[7] and 52% of all births in Texas.[8] Of all maternal deaths in 2012 in Texas, 68.5% were women enrolled in Medicaid.[6] Two separate studies show Texas has the highest uninsured rate in the nation, and a third of all women in Texas have no health coverage prior to pregnancy.[9]

Texas cannot afford to relax its efforts to ensure that women survive preventable conditions during and after pregnancy.[6] We must prioritize the Alliance for Innovation on Maternal Health (AIM) bundles, which have proven effective in other states already, ensure Medicaid is adequately funded, and provide education on risk factors to women before and during pregnancy.

Nursing should prioritize education for nurses in perinatal practice to identify concerns with the mother and implement guidelines for identifying and reducing racial bias in the health care system.



Note: CDC numbers are based on deaths within 42 days of delivery; the new DSHS methodology includes deaths within 365 days.
Source: CDC Wonder and Department of State Health Services
Credit: Benjamin Din and Chris Essig

[6] Texas Health and Human Services (2018). Maternal Mortality and Morbidity Task Force and Department of State Health Services Joint Biennial Report. Retrieved from https://www.dshs.texas.gov/mch/pdf/MMMTFJointReport2018.pdf.

[7] Markus, A. R., Andres, E., West, K. D., Garro, N., & Pellegrini, C. (2013). Medicaid Covered Births, 2008 Through 2010, in the Context of the Implementation of Health Reform. Women's Health Issues, 23(5), e273-e280. Retrieved from https://www.whijournal.com/article/S1049-3867(13)00055-8/fulltext.

[8] Texas Medical Association (2018). Access to Care. Retrieved from https://www.texmed.org/uploadedFiles/Current/2016.../4_Van%20Ramshorst.pptx

[9] Kiernan, J. S. (2018). State Uninsured Rates. Retrieved from https://wallethub.com/edu/uninsured-rates-by-state/4800/.

LEGISLATIVE HISTORY

SB 17 (2017 — PASSED)

Continued the Maternal Mortality and Morbidity Task Force until 2023. Instructed the task force to modify their reports to show comparisons between mothers with different socioeconomic statuses. Required the taskforce to make tools available for providers to conduct substance abuse and domestic violence screenings of pregnant women.

SB 1599 (2017 — PASSED)

Requires DSHS to post information on best practices for pregnancy-related-death investigations on their website.

SB 495 (2015 — PASSED)

Created the Maternal Mortality and Morbidity Task Force to study pregnancy-related deaths and trends in severe maternal morbidity (defined as "maternal morbidity that constitutes a life-threatening condition"). Required the task force to report their findings to the governor, lieutenant governor, speaker, and other members of the legislature on September 1 of each even-numbered year.

PERINATAL NURSE EDUCATION

ISSUE BACKGROUND

In 2017, perinatal nurse education gained national attention as ProPublica and NPR ran a story about a nationwide survey of postpartum nurses. The survey showed that only 12% of respondents knew that most maternal deaths happen in the days and weeks after delivery, and only 24% could identify heart-related problems as the leading cause.[10] Other studies show that the education nurses provide on risk factors after delivery and during discharge is not adequate.[11]

WHY IT MATTERS TO TEXAS NURSES

Nurses are in a unique position to influence negative maternal outcomes, especially due to their roles in perinatal care. Nurses may not be fully aware of the actual potential for maternal complications because births are

[10] Suplee, P. D., Bingham, D., Kleppel, L. (2017). Nurses' Knowledge and Teaching of Possible Postpartum Complications. *The American Journal of Maternal/Child Nursing, 42(6)*. Retrieved from https://journals.lww.com/mcnjournal/Citation/2017/11000/Nurses__Knowledge_and_Teaching_of_Possible.6.aspx.

[11] Suplee, P. D., Bingham, D., Kleppel, L. (2016). Discharge Education on Maternal Morbidity and Mortality Provided by Nurses to Women in the Postpartum Period. *Journal of Obstetric Gynecologic & Neonatal Nursing 45(6)*. Retrieved from https://www.jognn.org/article/S0884-2175(16)30287-8/fulltext.

natural, uneventful processes in most cases. Nurses who are well informed of perinatal risk factors will be better able to educate new mothers, identify mothers at increased risk, implement measures to reduce risk, and escalate concerns to other care providers as appropriate.

By law, pre-licensure programs must include content on maternal-child health in their curriculums. Nurses who do not receive adequate information on post-partum care in school may need to educate themselves while in practice instead. Nurses who care for childbearing women should engage in continuing education programs that include information on evidenced-based post partum care to identify and reduce maternal risk.

DISCHARGE

ISSUE BACKGROUND

In 2015, roughly 52% of all maternal deaths in the U.S. occurred in the postpartum period.[12] Additionally, research shows that new mothers have very low rates of postpartum care for themselves: As many as 40% of women do not attend postpartum visits.[13]

SIXTY-SEVEN PERCENT OF RNS IN PERINATAL PRACTICE SPENT JUST 10 MINUTES OR LESS OF THE DISCHARGE TEACHING TIME EXPLAINING POTENTIAL POST-DELIVERY COMPLICATIONS TO NEW FAMILIES.

Since many women are not receiving the crucial information shared in postpartum visits, the time in the hospital prior to discharge must be used to educate new families not only about care for their new infant but also how to care for the mother after delivery.

However, a recent study showed that 67% of RNs in perinatal practice spent 10 minutes or less of the discharge teaching time explaining potential post-delivery complications to new families.[11] In most cases, the patient signed the first page acknowledging receipt of discharge instructions, but with no evidence of what specifically was communicated by the care team. As the authors note:

> "[W]hen education is not consistent, is not easily understood and concise, or is not presented in such a way that women comprehend the importance to their own self-assessment, information can be misunderstood, misinterpreted, or misconstrued. Ultimately, a woman's health may be seriously jeopardized."

[12] Centers for Disease Control and Prevention (2019). Vital Signs: Pregnancy-Related Deaths, United States, 2011–2015, and Strategies for Prevention, 13 States, 2013–2017. *Morbidity and Mortality Weekly Report 68*, 423–429. Retrieved from https://www.cdc.gov/mmwr/volumes/68/wr/mm6818e1.htm/.

[13] American College of Obstetricians and Gynecologists. Optimizing postpartum care. ACOG Committee Opinion No. 736. *Obstetrics and Gynecology, 131*, e140–e150. Retrieved from https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Optimizing-Postpartum-Care.

A small study of both mothers and nurses noted a difference in perceptions of important topics for postpartum care: Nurses prioritize infant care, while patients prioritize maternal care.[14] Other studies show that mothers report concern over the lack of information on their health provided at discharge.[15]

WHY IT MATTERS TO TEXAS NURSES

Texas Nurses Association (TNA) experts reviewed the discharge instructions provided by over two dozen hospitals in Texas in 2017 and 2018. They found that the instructions are very similar in terms of care for the infant but lacked information about continuing vigilance and care for the mother.

Very few of the discharge instructions reviewed addressed the potential for drug overdose, although drug overdose is one of the top five causes of maternal mortality in Texas. Additionally, only one hospital reviewed by the experts provided the information in both English and Spanish.

TNA POSITION

Maternal discharge information should be standardized in Texas. The information should reflect that maternal mortality is a complication of childbirth, with attention to specific warning signs. Postpartum education for new mothers should include a teach-back component so that understanding can be assessed and any misunderstandings corrected before discharge. Postpartum instructions should reflect the most probable conditions that could lead to maternal death as well as the signs and symptoms that indicate potential risk factors for the specific condition. Handouts reflecting this communication should be in a simple format, signed by both the patient, the patient's accompanying support person (if available), and the educating nurse. This information, at a minimum, should be provided in English and Spanish. Evidence of this communication should be notated in the permanent record.

AIM BUNDLES

ISSUE BACKGROUND

The Alliance for Innovation on Maternal Health Program (AIM) is a nationwide program designed to improve patient safety through quality improvement initiatives. These initiatives analyze current practice performance and help health care providers implement a set of tools (bundles) to improve the outcomes of patients by educating staff and placing new guidelines into practice. Any hospital in the U.S. can participate.

[14] Ruchala P.L. (2000). Teaching new mothers: priorities of nurses and postpartum women. *Journal of Obstetric, Gynecologic & Neonatal Nursing, 29(3),* 265-273. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/10839575.

[15] Rudman, A. & Waldenström, U. (2007) Critical views on postpartum care expressed by new mothers. *BMC Health Services Research, 7.* Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/26522960

The AIM program has multiple patient safety bundles that are being implemented in various stages across the United States. There are currently 17 states considered "AIM States," with dozens of others who are interested in implementing AIM bundles in the future. The benefits of joining the AIM initiative include access to patient safety bundles, a supportive community with the same goal of improving maternal safety and quality of care, and improving national benchmarks.

Implementing AIM into a hospital system includes:

1. Identifying and communicating with the state or hospital system coordinator.
2. Completing a maternal safety survey to identify opportunities for improvement.
3. Establishing goals for improvement.
4. Educating team members on AIM bundles and using the tools to fit the needs of the facility.

Once the bundles are received, AIM partners will provide continued support to ensure the bundles are easily accessible and efficient. Last, data tracking will measure improvement in maternal morbidity and mortality rates. With the support of DSHS, TexasAIM bundles—based on national supported evidence-based practice—have already been developed, with guidelines and support services in place.

WHY IT MATTERS TO TEXAS NURSES

Implementing Texas AIM bundles into practice throughout the state of Texas is crucial to decreasing maternal morbidity and mortality rates. By adapting practices that already work for facilities in Texas, implementation will take less time and the bundles can be put into practice sooner. Currently, the focus of improving overall maternal morbidity and mortality in the state of Texas is obstetric care for women with opioid use disorders, hemorrhage, and severe hypertension in pregnancy.

TNA POSITION

Hospitals should collaborate with the state to implement Texas AIM bundles and help reduce the maternal mortality rate in Texas. Texas should also consider implementing more AIM bundles in the future.

MEDICAID

ISSUE BACKGROUND

Hundreds of thousands of low-income women who, under federal law, would be eligible for publicly funded health insurance do not qualify for coverage in Texas because state leaders rejected a coverage expansion offered under the Affordable Care Act.

WHY IT MATTERS TO TEXAS NURSES

Without a solution from lawmakers, childbearing women will continue to lack the support and resources necessary to proactively care for their health and the health of their unborn child. Additionally, State legislators' decision in 2011 to change how Texas offers women's health services has left thousands of women without crucial health care before, during and after pregnancy. That included a $73.6 million cut to family planning services that led to roughly 100,000 fewer people being served the following year.

TNA POSITION

TNA recommends that Medicaid funding be considered a high priority by the legislature, as it funds approximately 52% of all births in Texas. It is important to support extending postpartum Medicaid funding and to explore additional viable alternatives that would increase funding to effective women's health programs that encourage preconception care, promote access, and monitor health indicators after delivery.

LEGISLATIVE HISTORY

HB 2466 (2017)

- Provided coverage for maternal depression screenings under the Medicaid CHIP programs.

PRECONCEPTION CARE

ISSUE BACKGROUND

The Centers for Disease Control and Prevention (CDC) defines preconception care as the identification and modification of physical, behavioral, and social risks to a women's health or pregnancy outcome through prevention and management. The major aspects of preconception care are maternal assessment to include medical history, family history, behaviors, and a general physical exam; updating immunizations; screening for STIs, HIV, and genetic disorders; and risk counseling.

For planned pregnancies, preconception counseling offers time to evaluate the patient and her expectations regarding pregnancy. However, nearly half of pregnancies in the United States are unplanned, especially among teens.[16] Every patient encounter should include pregnancy considerations when the patient can become pregnant, such as potential effects procedures, laboratory examinations, or prescriptions might have on a woman or a fetus.

Providers should give special care to counseling adolescents and young adults, as they generally avoid seeking preventative care and engage in higher risk behaviors.[17] Studies show that those who do have preventative office visits received little guidance on health-related behaviors.[18] In addition, young adults have been shown to fare worse in key indicators of behavior and health than adolescents.[19]

WHY IT MATTERS TO TEXAS NURSES

The Pregnancy Risk Assessment Monitoring System (PRAMS), which is a state-specific, population-based surveillance system, evaluated preconception health of Texas women who delivered a live-born infant between 2002-2010.[20] Among female responders, 48% had no health-care insurance coverage before pregnancy and 46% reported an unintended pregnancy, 45% of the women reported consuming alcohol during the 3 months before pregnancy, and 18% reported binge drinking.

Women who enter pregnancy at a weight above or below normal weight, defined as a body mass index (BMI) of 18.5-24.9, are more likely to experience adverse pregnancy outcomes and to have infants who experience

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[16] Centers for Disease Control and Prevention. Unintended Pregnancy. Retrieved from https://www.cdc.gov/reproductivehealth/contraception/unintendedpregnancy/index.htm.

[17] Harris, S. K., Aalsma, M. C., Weitzman, E. R., Garcia-Huidobro, D., Wong, C. Hadland, S. E., Santelli, J., Park, M. J., & Ozezr, E. M. (2016). Research on Clinical Preventive Services for Adolescents and Young Adults: Where Are We and Where Do We Need to Go? *Journal of Adolescent Health, 60(30),* 249-260. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5549464/.

[18] Ma, J., Wang, Y., & Stafford, R.S. (2005). U.S. adolescents receive suboptimal preventive counseling during ambulatory care. *Journal of Adolescent Health 36(5),* 441. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/15841517/.

[19] Park, M.J., Scott, J.T., Adams, S.H., Brindis, C.D., Irwin, C.E. (2014). Adolescent and young adult health in the United States in the past decade: little improvement and young adults remain worse off than adolescents. *Journal of Adolescent Health, 55(1),* 3-16. https://www.ncbi.nlm.nih.gov/pubmed/24815958.

[20] Kingslety, R., Martin, R., Canfield, M., Case, A., Bensyl, D., & Farag, N. H. (2012). Preconception Health Indicators Among Women Texas, 2002-2010. *Morbidity and Mortality Weekly Report, 61(29), 550-555.* Retrieved from https://www.medscape.com/viewarticle/768571.

adverse health outcomes.[21] In 2015, there were 401,330 live births in Texas. Of those, only 44.5% were by women with pre-pregnancy normal weight. For this same time period, 26.4% of all live births in Texas were by women considered overweight, and 25.6% by women considered obese by CDC standards.

Although women with chronic conditions such as cardiac disease, diabetes, or high blood pressure are certainly at a greater risk when becoming pregnant, any woman can experience any number of complications during pregnancy, during childbirth, or postpartum.

TNA POSITION

Providers across Texas, including nurses, should screen patients for maternal risk factors prior to conception and discuss how these factors could affect future pregnancies. We recommend that women of childbearing age ask health care providers about risk factors prior to conception and understand how these risk factors could affect a pregnancy.

RACIAL DISPARITY AND BIAS

ISSUE BACKGROUND

In the United States, black women are three to four times more likely to die from complications of pregnancy or childbirth than white women.[22] Black women are also half as likely to initiate mental health care postpartum, receive follow-up care, or refill an antidepressant prescription.[23]

In addition, infants born to black women in 2016 were twice as likely to die within one year of birth than white infants and accounted for more deaths (10.4) per 1,000 live births than white (4.8) and Hispanic (5.3) infants in the same time period combined.[24] Black women also have a 50% higher rate of preterm birth compared to white women.[25]

[21] Deputy, N.P., Dub, B., & Sharma, A.J. (2018). Prevalence and Trends in Prepregnancy Normal Weight — 48 States, New York City, and District of Columbia, 2011–2015. *Morbidity and Mortality Weekly Report, 66*, 1402–1407. Retrieved from https://www.cdc.gov/mmwr/volumes/66/wr/mm665152a3.htm.

[22] Creanga A.A., e., Seed K., & Callaghan W.M. (2017). Pregnancy-Related Mortality in the United States, 2011-2013. Obstetrics and Gynecology, 130(2), 366-373. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/28697109.

[23] Kozhimannil, K. B.., Trinacty, C. M., Busch, A. B., Huskamp, H. A., & Adams, A. S. (2011). Racial and Ethnic Disparities in Postpartum Depression Care Among Low-Income Women. *Psychiatric Services, 62(6)*, 619–625. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3733216/.

[24] Henry J. Kaiser Family Foundation. Infant Mortality Rate by Race/Ethnicity. Retrieved from https://www.kff.org/other/state-indicator/infant-mortality-rate-by-race-ethnicity/.

[25] Centers for Disease Control and Prevention. Preterm Birth. Retrieved from https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pretermbirth.htm.

Historically, black women have had lower access to care, lower access to insurance, and lower quality of care from providers.[26] Health care providers are not immune to implicit bias,[27] and research shows that black women who perceive discrimination are less likely to attend postpartum follow-up appointments.[28]

According to multiple studies, "the lifelong accumulated experiences of racial discrimination by black women constitute an independent risk factor for preterm delivery" and low-birthweight deliveries.[29] This prevalent phenomenon was named weathering. Evidence shows that black people in the United States experience "early health deterioration as a consequence of the cumulative impact of repeated experience with social or economic adversity and political marginalization" that are not explained away solely by racial differences in socio-economic status like poverty.[30]

WHY IT MATTERS TO TEXAS NURSES

Nurses in Texas need to be cognizant of how racial disparities—and their underlying causes—can affect women's health. Nurses must understand that some populations have particularly high stressors simply based on the environment in which they live, both socially, politically, and economically. High stress lives can lead to preterm labor and complications which others may not experience.

TNA POSITION

Undertreating minority women leads to adverse maternal outcomes. To effect a reduction in these disparities, clinical standardized guidelines should include a domain to recognize women who are at a higher risk for complications related to their racial or ethnic background. Additionally, the Texas Nurses Association will develop or make available addition resources to help nurses identify and reduce racial bias in the care setting.

[26] Bulatao R.A. & Anderson N.B. (2004). Understanding Racial and Ethnic Differences in Health in Late Life: A Research Agenda. Washington, D.C.: National Academies Press (US). Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK24693/.

[27] FitzGerald, C. & Hurst, S. (2017). Implicit bias in healthcare professionals: a systematic review. BMC Medical Ethics, 18. Retrieved from https://bmcmedethics.biomedcentral.com/articles/10.1186/s12910-017-0179-8.

[28] Attanasio, L. & Kozhimannil, K.B. (2017). Health Care Engagement and Follow-up After Perceived Discrimination in Maternity Care. *Medical Care, 55(90),* 830-833. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/28692572.

[29] Collins, J. W., David, R. J., Handler, A., Wall, S., and Andes, S. (2004). Very Low Birthweight in African American Infants: The Role of Maternal Exposure to Interpersonal Racial Discrimination. *American Journal of Public Health, 94(12),* 2132–2138. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1448603/.

[30] Geronimus, A. T., Hicken, M., Keene, D, & Bound, J. (2006). "Weathering" and Age Patterns of Allostatic Load Scores Among Blacks and Whites in the United States. *American Journal of Public Health, 96(5),* 826-833. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1470581/.