

Screening and Referral for Social Needs Among Obstetricians and Gynecologists in Michigan

Executive summary

Recent estimates suggest that 80 percent of maternal deaths in the United States are preventable.ⁱ In Michigan, the maternal mortality rate is 19.6 per 100,000.ⁱⁱ Comparatively, the national rate is five per 100,000.ⁱⁱⁱ Addressing social needs during pregnancy could reduce the state's maternal death rate.

Further, stark racial disparities exist in maternal health. Notably, Black birthing people are 2.6 times more likely to die from pregnancy-related complications than White people.^{iv,v} While addressing immediate social needs on an individual level--like domestic or relationship violence, food and housing insecurity, or lack of transportation--is unlikely to fully erase these disparities, doing so may reduce them.

Social determinants of health have profound impacts on the health of pregnant people and can affect rates of preterm birth, unintended pregnancy, infertility, and maternal mortality.^{vi} Screening for social needs during prenatal and postpartum visits, such as food insecurity, unemployment, and housing insecurity, then referring expecting moms for care, presents an opportunity to improve maternal and infant health in Michigan as pregnant people interact frequently with the healthcare system during this time.^{vii,viii} However, gaps in this type of care persist in obstetric settings.^{ix}

Much of the past research on [screening and referrals for social needs](#) has focused on primary care providers (PCPs). This includes family practice physicians and pediatricians, who often work with parents and babies both before and after pregnancy. However, it remains unclear how many ObGyn physicians in Michigan screen for social needs and then connect patients to support. Since most ObGyns specialize in prenatal care, this group of physicians is especially well-positioned to identify and address social needs in the prenatal period.

To understand the prevalence of obstetric and gynecological social needs screenings and referrals in Michigan, we analyzed data from [CHRT's 2021 Michigan Physicians Survey](#). The survey included data from 2,185 licensed Michigan physicians, including 139 ObGyns and 926 Primary Care Physicians (PCPs).^x

Our analysis sought to answer the following questions:

1. How prevalent is social needs screening among Michigan's obstetricians and gynecologists?
2. Do Michigan ObGyns know where to refer patients when social needs are identified?
3. How do screening and referral rates among Michigan ObGyns compare to screening and referral rates among primary care physicians and physicians overall?
4. Do other factors, such as practice type, years in practice, or patient population, influence the ability for Michigan ObGyns to screen and know where to refer for social needs?

Key findings

- ObGyns are generally less likely than PCPs to both screen for social needs and know where to refer patients for additional services.

- While ObGyns are more likely to screen for domestic or relationship violence compared to PCPs, they are no more likely to know where to refer their patients for support after screening.
- ObGyns who work in hospitals, who are newer to the workforce, and who have more patients on Medicaid are generally more likely to screen for social needs.
- ObGyns in smaller practice sizes are generally less likely to know where to refer patients for social needs and concerns.

Recommendations

Based on these findings, this brief discusses opportunities to increase the number of ObGyns who screen and refer for social needs to improve Michigan's maternal and child health outcomes.

1. Engage ObGyns in local care coordination systems, including Michigan-based regional health collaboratives and state-sponsored social needs programs that serve women and children.
2. Enhance the training curriculum for Michigan-based ObGyns by including more information about the impacts of social determinants of health on maternal morbidity and mortality.
3. Support [Michigan's Community Information Exchange Taskforce](#) in creating a data system that ObGyns, other specialists, and primary care providers can use to securely share patient needs with social service organizations.
4. Explore funding mechanisms for better integration of social needs into ObGyn settings through Medicaid expansions and diverse public-private financial partnerships.
5. Continue to conduct research on screening and referral tools to ensure that they build trust between patients and providers and are administered in culturally competent, trauma-informed ways.

Social determinants of health and pregnancy

Social Determinants of Health (SDoH) are non-medical conditions—such as poverty and food insecurity—that have profound impacts on individual health.^{xi} Relationship violence and traumatic life events are social determinants of health that are known to affect pregnant people more severely.^{xii} Pregnant people’s individual health outcomes, as well as infant health outcomes, are greatly influenced by all these conditions.^{xiii, xiv}

Federal policy requirements are lacking when it comes to screenings and referrals for social needs. While the US Preventive Services Task Force (USPSTF) recommends that [reproductive age women are screened for interpersonal violence](#) and that [all adults are screened for depression](#), there are no formal requirements for other social needs screenings, such as food and housing insecurity, or subsequent referrals.^{xv} However, the American College for Obstetricians and Gynecologists (ACOG) recognizes [the importance of screening for social needs among pregnant people](#), recommending that physicians increase referrals to social services to help pregnant people when they present with social needs.^{xvi, xvii}

As maternal and infant health outcomes are highly impacted by social determinants of health, all ObGyns should have the resources needed to screen and refer for social needs. Additionally, many reproductive-age women rely on ObGyn specialists for their primary care needs.^{xviii} Screening for social needs in this setting is an opportunity to reach a group who may not be seen regularly by other physicians. Further, addressing social needs in the prenatal period could have positive downstream effects for both parent and child, as adequate prenatal care has been shown to improve health outcomes for both groups.^{xix}

Do obstetricians and gynecologists regularly screen patients for social needs?

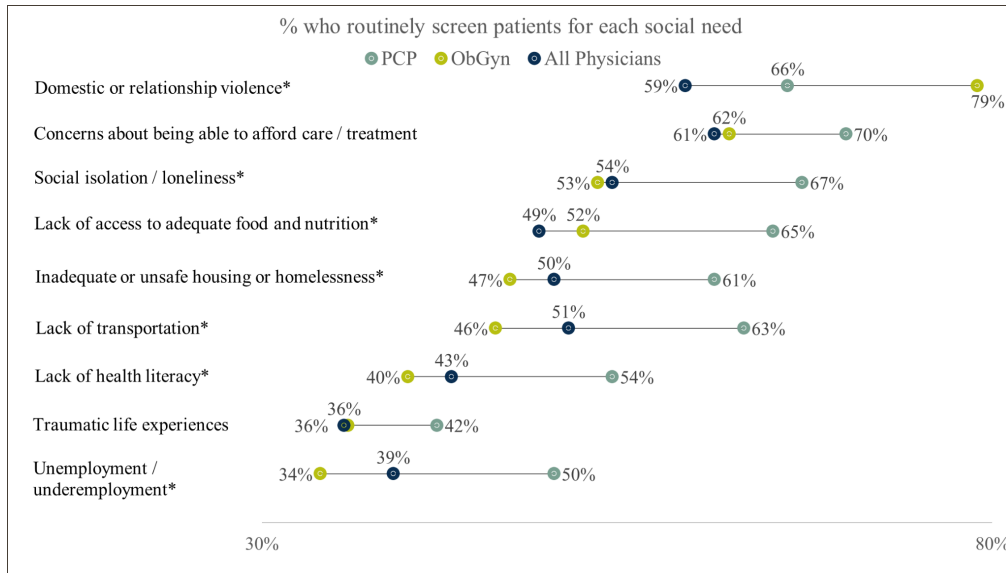
ObGyn physicians were less likely than PCPs to screen for most social needs.^{xx} In particular, ObGyns were significantly less likely to screen for food insecurity, housing instability, lack of transportation, un- and underemployment, health literacy, and social isolation/loneliness compared to PCPs (Figure 1). This gap was largest for food insecurity; only 42 percent of ObGyns reported screening for food insecurity compared to 65 percent of PCPs.

However, ObGyns do screen for domestic violence more often than their PCP counterparts. 79 percent of ObGyns in Michigan reported screening for domestic violence, compared to 66 percent of PCPs and 59 percent of all physicians.

Screening rates for concerns about cost of care and for traumatic life experiences were not statistically different between ObGyns and PCPs. The smallest gap was found in screening patients for traumatic life experiences, where 36 percent of ObGyns reported screening compared to 42 percent of PCPs. These differences were not statistically significant but are still important to note for the context of this brief.

Fig. 1

ObGyns are less likely to screen for social needs compared to PCPs, except for domestic violence



Data Source: 2021 Michigan Physicians Survey, CHRT.org

*Significant difference at $p < 0.05$ between ObGyns and PCPs.

What factors influence rates of social screening among ObGyns?

Practice type, number of years in practice, and percentage of patients on Medicaid influenced the likelihood of social needs screening done by ObGyns.^{xxi}

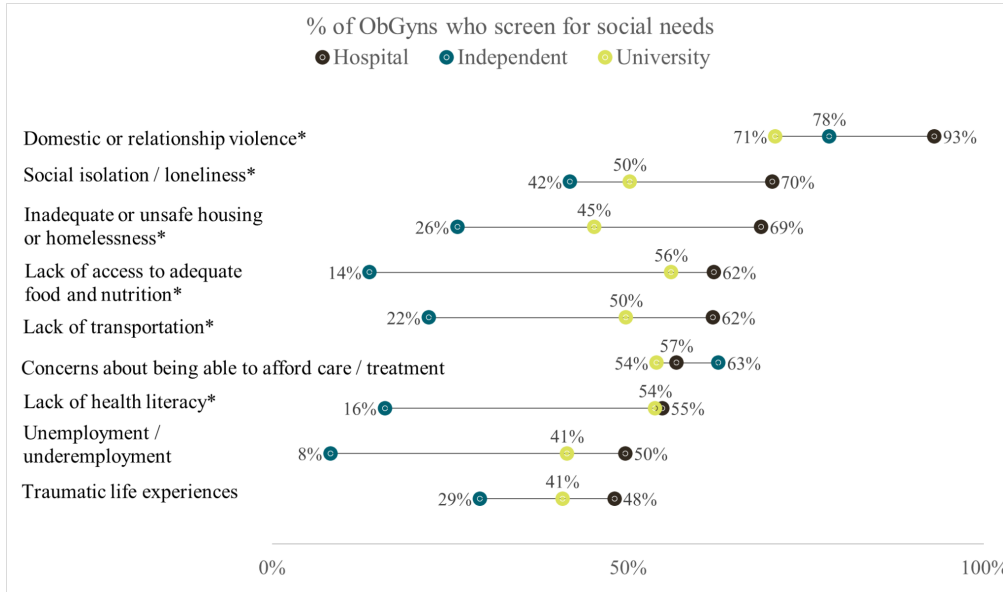
Practice type

ObGyns were more likely to practice in hospital, university, or independent settings.^{xxii} Therefore, we focused our analysis on the differences in screening rates among these three practice settings.

- Hospital-based ObGyns were more likely than ObGyns who were not based in a hospital to screen for social needs. We found significant differences for screenings of unsafe housing or homelessness, lack of access to adequate food and nutrition, lack of transportation, and un- or underemployment.
- ObGyns practicing independently were less likely to screen for social needs than ObGyns in other practice arrangements. We found significant differences for screenings of inadequate or unsafe housing or homelessness, lack of access to adequate food and nutrition, lack of transportation, and un- or underemployment.
- We did not find significant differences in screening for those who worked in a university compared to those who did not.

Fig. 2

ObGyns in hospital settings were almost always more likely to screen for social needs.



Data Source: 2021 Michigan Physicians Survey, CHRT.org

*Significant at $p < 0.05$, indicates a significant difference between those in the practice arrangement and those who are not (i.e. those who are in hospitals versus non-hospital physicians).

Years in practice

We found that ObGyns’ likelihood of routinely screening for social needs varied depending on the number of years that they had been practicing.

ObGyns who had practiced for 31 years or more were significantly less likely to screen for inadequate or unsafe housing or homelessness, lack of access to adequate food and nutrition, and lack of transportation than those who had practiced for 0-10 years or 21-31 years.

When compared to ObGyns who had begun practicing within the last 10 years, they were also less likely to screen for un- or underemployment.

Patient population

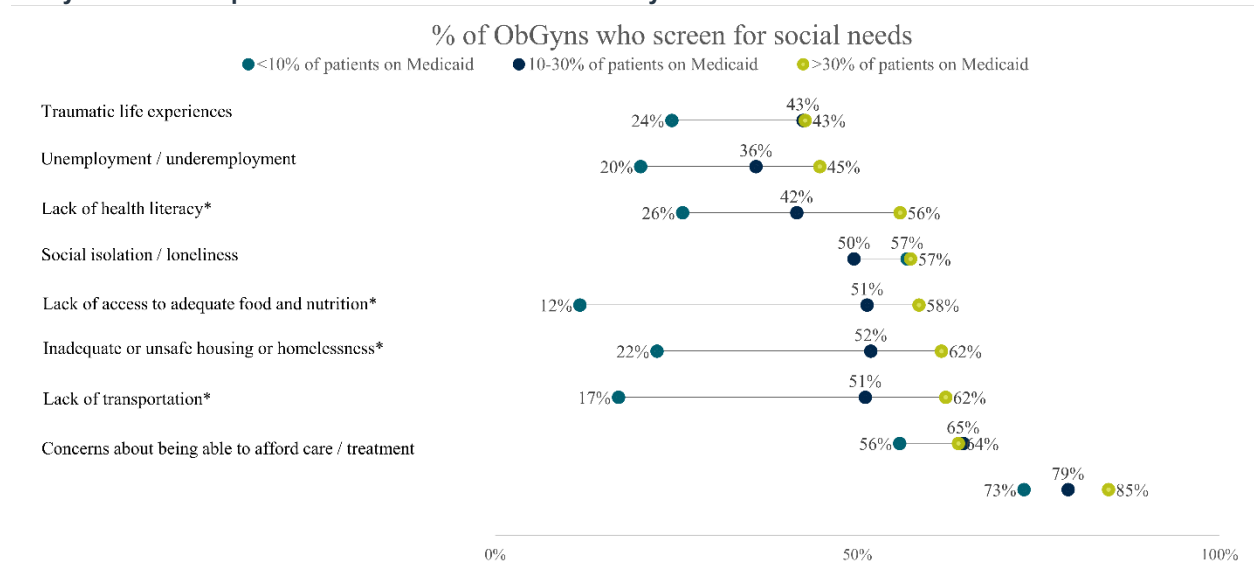
Our findings suggest that payer mix is related to ObGyns’ likelihood of screening for social needs.

ObGyns with over 30 percent of patients on Medicaid were significantly more likely to screen for inadequate or unsafe housing or homelessness, lack of access to adequate food and nutrition, and lack of transportation compared to ObGyns with fewer patients on Medicaid.

When compared to ObGyns with less than 10 percent of their patients on Medicaid, they were also more likely to screen for health literacy and un- or underemployment.

Fig. 3

ObGyns with more patients on Medicaid were more likely to screen for social needs.



Data Source: 2021 Michigan Physicians Survey, CHRT.org

*Significant at $p < 0.05$

Practice size

We did not find any significant relationship between practice size and screening among ObGyns.

Do ObGyns know where to refer their patients for social support?

Overall, ObGyns were less likely to know where to refer patients for social support than PCPs and all physicians in the sample.^{xxiii}

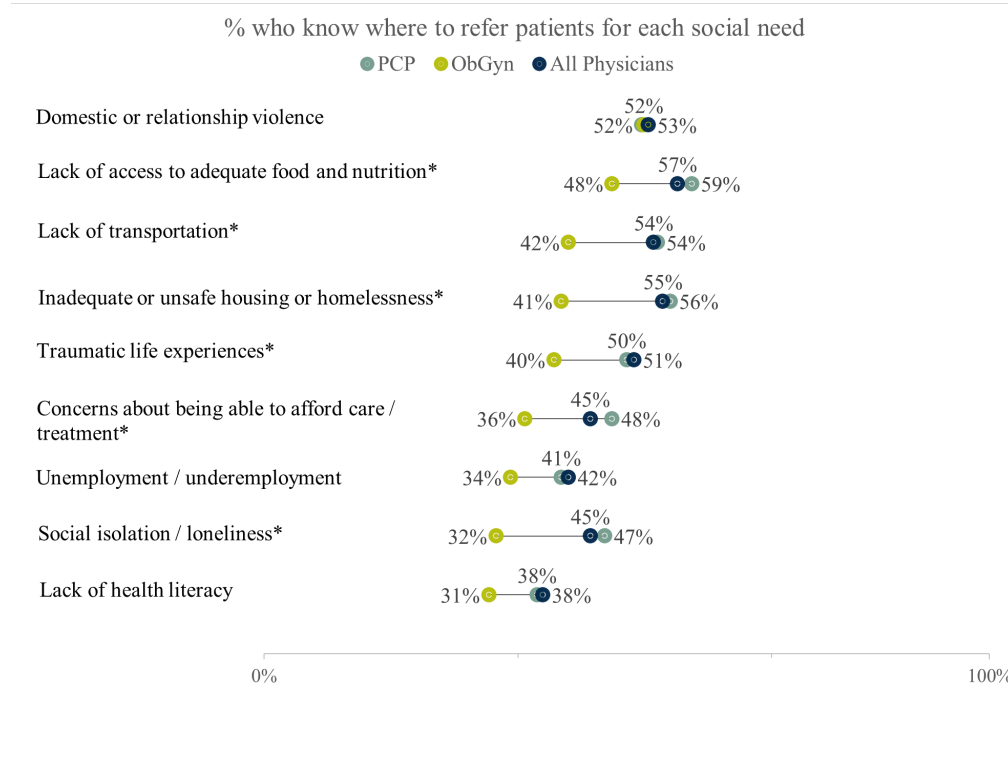
ObGyns were less likely than PCPs to know where to refer for traumatic life experiences, food insecurity, housing instability, lack of transportation, social isolation/loneliness, and concerns about affording treatment. These differences were statistically significant, but they are generally smaller than the gaps observed for social needs screening.

While ObGyn physicians were significantly more likely to screen for domestic violence compared to PCPs, they were not necessarily more likely to refer patients out to further care related to these experiences.

About 52 percent of ObGyns and PCPs reported knowing where to refer for domestic violence needs compared to 53 percent of all physicians, which was not significantly different.

Fig. 4

Overall, ObGyns are less likely to know where to refer for social needs compared to PCPs.



Data Source: 2021 Michigan Physicians Survey, CHRT.org

*Significant at p<0.05

What factors influence the likelihood of ObGyns knowing where to refer patients when they screen positive for a social need?

Practice size has a considerable impact on whether an ObGyn knows where to refer a patient after they screen positive for a social need.^{xxiv}

ObGyns who work in practices of 1-10 physicians are significantly less likely to know where to refer patients for domestic or relationship violence and inadequate or unsafe housing compared to ObGyns in larger practices (practices of 11-25 physicians or 26 or more physicians).

ObGyns in practices of 1-10 physicians were also less likely to know where to refer for lack of adequate food and nutrition compared to ObGyns in practices of 26 or more physicians.

We did not find any significant relationships between practice arrangement, patient population on Medicaid, or years in practice in knowing where to refer among ObGyns.

Policy implications in Michigan

The National Academies of Medicine (NAM) recognizes the need to further integrate social care into healthcare, offering the following five recommendations:

1. design health care delivery to integrate social care into health care;

2. build a workforce to integrate social care into health care delivery;
3. develop a digital infrastructure that is interoperable between health care and social care organizations;
4. finance the integration of health care and social care; and
5. fund, conduct, and translate research and evaluation on the effectiveness and implementation of social care practices in health care settings.^{xxv}

Screening and referrals for social needs during pregnancy are also supported by the Center for Medicare and Medicaid's (CMS) new [Transforming Maternal Health \(TMaH\) model](#).^{xxvi} The model addresses the issues our research has identified in that it aims to enhance data collection and information sharing between providers, community-based organizations, and other agencies.^{xxvii} The model also calls for increased screening for social needs and building stable pathways between medical providers and social service organizations.^{xxviii}

State Medicaid agencies will have the opportunity to apply for funding under this model starting in the spring of 2024 and Michigan could greatly benefit from this program.^{xxix}

The state of Michigan has also provided guidance within this space. To reduce the instances of maternal mortality in our state, the Michigan Maternal Mortality Surveillance Program recommends that:

1. women are offered comprehensive care;
2. systems are aligned to deliver this care; and
3. stakeholders are educated about the intersection of interpersonal violence, mental health, traumatic life events, and substance abuse with pregnancy.^{xxx}

We used the National Academy of Medicine's 2019 report, [Integrating Social Care into the Delivery of Health Care](#), as a framework for recommendations for action in Michigan.^{xxxi} Our findings support their five recommendations, and below are ways in which Michigan can specifically address these needs.

Goal 1. Engage ObGyns in local care coordination systems, including Michigan-based care coordination hubs and state-sponsored social needs programs that serve women and children.

As ObGyns are generally less likely to know where to refer than PCPs, state and local governments, hospital systems, and social service agencies should work together to provide referral support for ObGyns, especially when it comes to domestic or relationship violence. This collaboration could entail expanded engagement of specialists, including ObGyns, in state and local care coordination systems between doctors and social services, which is one of the goals of [Michigan's Roadmap to Healthy Communities](#) plan.^{xxxii} This system could support doctors who know where to refer patients when necessary to ensure a quick transfer of care is available.

In addition to care coordination systems, this research has made it clear that more screening and referral support is needed for ObGyns who work independently or in smaller practice settings. The Michigan Department of Health and Human Services or Michigan chapters of the American College of Obstetricians and Gynecologists (ACOG) could work collaboratively with local communities, regional health collaboratives, payers, and health systems to explore the best ways to engage ObGyns who work independently or in smaller practice settings. Some existing resources to connect this group to include [Michigan 211](#) and local care coordination hubs, such as the [Mid-Michigan Community Health Access Program](#) (CHAP) in Genesee County, the [Jackson Care Hub](#) in Jackson County, the [MI Community Care](#) (MiCC) program in Washtenaw County, and [Health Net of West Michigan](#) in Kent County.

The state of Michigan already has robust social needs programs that could work more closely with the healthcare

systems to provide more comprehensive care for pregnant people. This includes the [Maternal Infant Health Program](#), (MIHP) which pairs social care providers with pregnant and postpartum people eligible for Medicaid, as well as the Women Infant and Children (WIC) program, which provides nutritional support to families. Providers from both programs could be better aligned with PCPs and ObGyns, specifically those who treat Medicaid eligible populations.

Lastly, all of the ideas and recommendations mentioned here would work best if they could be integrated into already existing ObGyn workflows. As workflow changes can be disruptive to physicians, this would ensure that screening and referring patients out for social needs does not add an additional burden on ObGyns and that integration is more successful.^{xxxiii}

Goal 2. Emphasize the importance of social determinants of health on maternal morbidity and mortality in Michigan-based ObGyn training programs.

Continuing education programs could be modified by the Michigan Medical Board or other medical groups such as the American Medical Association to include information about the importance of social needs during pregnancy.

NAM recommends that curricula incorporate how social determinants of health affect health outcomes, how to best collaborate with teams to address social needs in medical settings, and how to best use data to ease the integration of social service organizations and medical professionals.^{xxxiv}

Goal 3. Help Michigan's [Community Information Exchange Taskforce](#) create a data system that ObGyns, other specialists, and primary care providers can use to securely share patient needs with relevant social service organizations.

Data sharing mechanisms that both collect and track patient social needs are integral to closed-loop referral systems. As Michigan continues to move toward implementing a closed-loop referral system, our research indicates the need to share this system with specialists, such as ObGyns.

Further, a 2023 Community Information Exchange (CIE) Taskforce report, organized by the Michigan Department of Health and Human Services (MDHHS), outlines [concrete next steps for executing this type of system](#). Steps include establishing affordable and ethical data management services, developing shared language around data management so the system and services can be used in a variety of practice contexts, and identifying stewards with various expertise to keep the system running.^{xxxv}

Goal 4. Explore funding mechanisms for better integrating social referrals into ObGyn settings through Medicaid waivers and diverse public-private financial partnerships.

Michigan's state Medicaid program can use federal funds designated to social care to expand upon the ways healthcare professionals communicate with social care providers, like social workers and homecare nurses. This could be in the form of a 1115 waiver, support from funds CMS recently designated as "In-lieu of Services," and community health worker reimbursement mechanisms.^{xxxvi} Both NAM and the CIE taskforce recommend that a variety of financing mechanisms should be used to spread financial risk across sectors.

Further, our findings suggest that ObGyns who had a larger share of patients with Medicaid were more likely to screen for social needs, which is likely influenced by federal policy that requires Medicaid managed care organizations (MCOs) to conduct an initial screening of enrollees' needs.^{xxxvii}

This practice could be expanded to other payers to ensure screening happens more universally. The addition of a Social Need Screening and Intervention (SNS) measure through the [Healthcare Effectiveness Data and Information Set](#) (HEDIS) could be a resource for health care plans as they begin to report on social needs and gather data.^{xxxviii}

State and federal policymakers, health insurance plan providers, health systems, and private sector investors could work together to ensure effective financing.^{xxxix}

Additionally, health insurance financial designs can be leveraged to incentivize maternity care systems to acknowledge and respond to the impacts of social needs on health outcomes.

Payment models based on outcomes like alternative payment models, accountable care models (i.e., accountable care organizations and patient-centered medical homes), and Medicare Shared Savings all reward based on health outcome measures as opposed to process.^{xl} As addressing social needs leads to better overall health outcomes, these designs could support health systems in prioritizing screening and referrals.

Goal 5. Health systems should continue to conduct research on screening and referral tools to ensure they build trust between patients and providers and are administered in culturally competent, trauma-informed ways.

More research is needed to evaluate social screening and referral interventions in Michigan. Specifically, when screening tools are implemented, providers should ensure the tools used are culturally competent and trauma informed.^{xli}

Trauma-informed approaches include recognizing the impact of trauma on health and actively avoiding re-traumatization by integrating understanding of trauma effects into policies, practices, and procedures.^{xlii} This is particularly important in ObGyn settings as patients are likely to be concerned about facing stigma and other negative consequences when disclosing sensitive information.^{xliii}

Building trust between patients and providers, as well as transparency about why providers are screening for social needs, could facilitate a more positive experience for pregnant patients.^{xliv}

An urgent conversation

Michigan’s maternal mortality rate is alarmingly high. We must work together across disciplines to reduce these devastating outcomes. With more ObGyns screening for social needs and knowing where to refer patients, we can improve maternal and infant health in Michigan.

Social needs screenings and referrals are important aspects of improving maternal and infant health outcomes when used during obstetric and gynecological visits. While this is widely recognized, our findings from the 2021 Michigan Physicians Survey demonstrates that a large share of ObGyns do not screen or know where to refer their patients for social needs such as food and housing insecurity.

ObGyns in Michigan should have more support in implementing these practices in ways that meet the needs of pregnant people and their families. When ObGyns collaborate more efficiently with social and public health services, pregnant Michiganders will receive more robust and holistic care to improve both their health and their child’s health in the long term.

Citations

ⁱ“Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019 | CDC,” September 26, 2022. <https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/data-mmrc.html>.

ⁱⁱ “Maternal Mortality Rate by State 2023.” Wisevoter, Accessed August 14, 2023. <https://wisevoter.com/state-rankings/maternal-mortality-rate-by-state/>.

ⁱⁱⁱ Ibid.

- ^{iv} “Maternal Mortality Rates in the United States, 2021,” March 16, 2023. <https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2021/maternal-mortality-rates-2021.htm>.
- ^v Ibid.
- ^{vi} “Importance of Social Determinants of Health and Cultural Awareness in the Delivery of Reproductive Health Care.” Accessed August 7, 2023. <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/01/importance-of-social-determinants-of-health-and-cultural-awareness-in-the-delivery-of-reproductive-health-care>.
- ^{vii} Ibid.
- ^{viii} Drexler, Kathleen A., Johanna Quist-Nelson, and Amy B. Weil. “Intimate Partner Violence and Trauma-Informed Care in Pregnancy.” *American Journal of Obstetrics & Gynecology* MFM 4, no. 2 (March 1, 2022): 100542. <https://doi.org/10.1016/j.ajogmf.2021.100542>.
- ^{ix} Peahl, Alex F., Claire Chang, Gwendolyn Daniels, Molly J. Stout, Lisa Kane Low, Xilin Chen, and Michelle H. Moniz. “Rates of Screening for Social Determinants of Health in Pregnancy across a Statewide Maternity Care Quality Collaborative.” *American Journal of Obstetrics and Gynecology* 230, no. 2 (February 1, 2024): 267-269.e3. <https://doi.org/10.1016/j.ajog.2023.09.091>.
- ^x The 2021 Michigan Physician Survey was fielded online to licensed physicians in Michigan from April 7, 2021 to May 11, 2021. 2,188 physicians responded to the survey (8% response rate). To adjust for non-response, the final sample was weighted by the region in which the physician practices, as well as years in practice. The social needs analyzed in this brief include: domestic or relationship violence, concerns about being able to afford care/treatment, social isolation/loneliness, lack of access to adequate food and nutrition, inadequate or unsafe housing or homelessness, lack of transportation, lack of health literacy, traumatic life experiences, and unemployment/underemployment.
- ^{xi} Ibid.
- ^{xii} Singh, Gopal K. “Trends and Social Inequalities in Maternal Mortality in the United States, 1969-2018.” *International Journal of Maternal and Child Health and AIDS* 10, no. 1 (2021): 29. <https://doi.org/10.21106/ijma.444>.
- ^{xiii} Drexler, Quist-Nelson, Weil, op. cit.
- ^{xiv} Ibid.
- ^{xv} Weigel, Gabriela, Brittini Frederiksen, Usha Ranji, and Alina Salganicoff. “Screening and Intervention for Psychosocial Needs by U.S. Obstetrician-Gynecologists.” *Journal of Women’s Health* 31, no. 6 (June 2022): 887-94. <https://doi.org/10.1089/jwh.2021.0236>.
- ^{xvi} Ibid.
- ^{xvii} “Importance of Social Determinants of Health and Cultural Awareness in the Delivery of Reproductive Health Care.” Accessed August 7, 2023. <https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/01/importance-of-social-determinants-of-health-and-cultural-awareness-in-the-delivery-of-reproductive-health-care>.
- ^{xviii} Attanasio, Laura, Brittany Ranchoff, Chanup Jeung, Sarah Goff, and Kimberley Geissler. “Preventive Care Visits with OB/GYNs and Generalist Physicians among Reproductive-Age Women with Chronic Conditions.” *Health Services Research* 58, no. 1 (2023): 207-15. <https://doi.org/10.1111/1475-6773.14100>.
- ^{xix} Gadson, Alexis, Eloho Akpovi, and Pooja K. Mehta. “Exploring the Social Determinants of Racial/Ethnic Disparities in Prenatal Care Utilization and Maternal Outcome.” *Seminars in Perinatology*, Strategies to reduce Racial/Ethnic Disparities in Maternal Morbidity and Mortality, 41, no. 5 (August 1, 2017): 308-17. <https://doi.org/10.1053/j.semperi.2017.04.008>.
- ^{xx} Survey question asked for both screening and referrals: "Below is a list of non-medical issues that some patients experience. Please indicate if you or any other staff in your practice routinely screen your patients for any of these issues. In the last column, please indicate if you or a member of your care team know where you would refer your patients to get assistance in addressing those needs."
- ^{xxi} We ran logistic regression models to predict whether ObGyns screened for the following social needs: domestic or relationship violence, concerns about being able to afford care/treatment, social isolation/loneliness, lack of access to adequate food and nutrition, inadequate or unsafe housing or homelessness, lack of transportation, lack of health literacy, traumatic life experiences, and unemployment/underemployment. Then, we used postestimation pairwise comparisons to test for the difference between categories for the independent variables with more than 2 categories.
- ^{xxii} Study participants were able to select multiple practice arrangements.
- ^{xxiii} Survey question asked for both screening and referrals: "Below is a list of non-medical issues that some patients experience. Please indicate if you or any other staff in your practice routinely screen your patients for any of these issues. In the last column, please indicate if you or a member of your care team know where you would refer your patients to get assistance in addressing those needs."
- ^{xxiv} We ran logistic regression models to predict whether or not ObGyns knew where to refer for the following social needs: domestic or relationship violence, concerns about being able to afford care/treatment, social isolation/loneliness, lack of access to adequate food and nutrition, inadequate or unsafe housing or homelessness, lack of transportation, lack of health literacy, traumatic life experiences, and unemployment/underemployment. Then, we used postestimation pairwise comparisons to test for the difference between categories when the independent variable had more than 2 categories.

- xxv “Integrating Social Care into the Delivery of Health Care: Moving Upstream to Improve the Nation’s Health.” National Academies of Medicine (NAM). Washington, D.C.: National Academies Press, 2019. <https://doi.org/10.17226/25467>.
- xxvi “Transforming Maternal Health (TMAH) Model | CMS.” Accessed January 16, 2024. <https://www.cms.gov/priorities/innovation/innovation-models/transforming-maternal-health-tmah-model>
- xxvii Ibid.
- xxviii Ibid.
- xxix Ibid.
- xxx CDC, op. cit.
- xxxi Ibid.
- xxxii “Michigan’s Roadmap to Healthy Communities.” Michigan Department of Health and Human Services, April 4, 2022. <https://www.michigan.gov/mdhhs/-/media/Project/Websites/mdhhs/Inside-MDHHS/Policy-and-Planning/Social-Determinants-of-Health-Strategy/Strategy-Documents/Phase-I-SDOH-Strategy-2823.pdf?rev=31b133a7c8de4e94937294bf9f415ba0&hash=E72558974DE9525C88230897CEB36E0C>
- xxxiii Angah, Nelly, Bridget Meedzan, Natacha Pruzinsky, Andrew O’Connell, Louis Hart, Darcey Cobbs-Lomax, and Polly Vanderwoude. “Leveraging Technology and Workflow Optimization for Health-Related Social Needs Screening: An Improvement Project at a Large Health System.” *The Joint Commission Journal on Quality and Patient Safety*, November 8, 2023. <https://doi.org/10.1016/j.jcjq.2023.11.001>.
- xxxiv NAM, op. cit.
- xxxv “Michigan Community Information Exchange (CIE) Task Force Final Report.” Michigan Department of Health and Human Services, August 2019. https://www.michigan.gov/mdhhs/-/media/Project/Websites/mdhhs/Inside-MDHHS/Policy-and-Planning/Social-Determinants-of-Health-Strategy/CIE/CIE-TF-Final-Report-FINAL-08092023.pdf?hash=EF9B59A3155E1AE8E459D3242C334839&rev=b1fe4868034c40f6954bb743797eb029&utm_campaign=&utm_medium=email&utm_source=govdelivery
- xxxvi Ibid.
- xxxvii Huson, Tamara. “Financing Strategies to Address the Social Determinants of Health in Medicaid,” MACPAC, May 2022. https://www.macpac.gov/wp-content/uploads/2022/05/SDOH-Issue-Brief_May-2022.pdf
- xxxviii Reynolds, Andy. “Social Need: New HEDIS Measure Uses Electronic Data to Look at Screening, Intervention.” *NCQA* (blog), November 2, 2022. <https://www.ncqa.org/blog/social-need-new-hedis-measure-uses-electronic-data-to-look-at-screening-intervention/>.
- xxxix Ibid, NAM, op. cit.
- xl Sanne Magnan. “Social Determinants of Health 101 for Health Care: Five Plus Five.” *NAM Perspectives* 7, no. 10 (October 9, 2017). <https://doi.org/10.31478/201710c>.
- xli Peahl, Rubin-Miller, Paterson, Jahnke, Plough, Henrich, Moss, and Shah, op. cit.
- xlii “What Is Trauma-Informed Care?,” *Trauma-Informed Care Implementation Resource Center*. August 8, 2018. <https://www.traumainformedcare.chcs.org/what-is-trauma-informed-care/>.
- xliiii Weigel, Gabriela, Brittni Frederiksen, Usha Ranji, and Alina Salganicoff. “Screening and Intervention for Psychosocial Needs by U.S. Obstetrician-Gynecologists.” *Journal of Women’s Health* 31, no. 6 (June 2022): 887–94. <https://doi.org/10.1089/jwh.2021.0236>.
- xliv Ibid.