



Nurse-Family Partnership & Vitamin Angels: Innovative programs using the Maternal Vulnerability Index to focus on vulnerable communities

The Maternal Vulnerability Index (MVI), developed by Surgo Ventures, is a new measure of the contextual, clinical, and social determinants of health that impact the health of mothers and their babies. The MVI is the **first county-level, national-scale, open-source tool to identify where and why moms¹ in the U.S. are vulnerable to poor health outcomes**. The MVI explores 43 indicators across 6 themes: reproductive, physical health, mental health and substance use, general health care, socioeconomic determinants, and environmental factors.

While the MVI was designed for all types of audiences, it has been particularly exciting to learn the ways in which **public health practitioners have used the MVI to improve programming**. Two of the most innovative and creative organizations leveraging the MVI are the [National Service Office for Nurse-Family Partnership and Child First](#) and [Vitamin Angels](#), as highlighted below.

Use Case 1: Evaluating organizational programs through the lens of vulnerability

Nurse-Family Partnership[®] (NFP) is an evidence-based program shown to be effective serving families with the most complex challenges and barriers to resources. The National Service Office for Nurse-Family Partnership and Child First uses the MVI to better understand the communities they currently serve and identify additional areas that may benefit from NFP, given that the program is designed to serve birthing individuals at high risk of poor outcomes. Individuals with the most complex challenges are the most important to reach, but they are precisely the type of patients that can be most difficult to enroll. The National Service Office has assessed the extent to which they are enrolling families who could most benefit from the NFP program, but it's challenging to compile all the relevant community-level data on maternal risk factors. This is where the MVI has been helpful: the index provides a single composite measure and theme-specific measures of maternal risk at a granular level that the National Service Office uses to ensure it is serving communities in greatest need of NFP services.

¹ Although we use the term 'mothers' here and in our materials, we recognize that not everyone who carries a pregnancy refers to themselves this way, and we respect the diversity of all birthing people.

Additionally, the National Service Office uses risk data to better understand NFP's impact. One recent randomized control trial in South Carolina, led by [MIT's Poverty Action Lab](#), began in 2016 and used low-income zip code data as an indicator of maternal risk. However, income is only one risk factor for maternal outcomes. Now with MVI data, the National Service Office hopes to run NFP impact studies using the MVI data to better understand whether their impact varies based on the maternal vulnerability of the community, among other factors.

Use Case 2: Targeting resources and programs towards communities vulnerable to poor maternal health outcomes

Vitamin Angels uses the MVI to identify and prioritize communities that are most vulnerable to poor maternal health outcomes. For instance, in the US, Vitamin Angels provides gift-in-kind grants of prenatal multivitamins and minerals to a wide variety of partnering organizations to support healthy pregnancies, including Federally Qualified Health Centers and government programs (e.g. Supplemental Nutrition Program for Women, Infants, and Children). To identify organizations with the greatest need, the MVI is incorporated into their holistic set of criteria for evaluating applications. In addition, Vitamin Angels has also leveraged the MVI to contextualize geographies where they should focus their programmatic activities. For example, Vitamin Angels's supplementary feeding program provides nutritious food and education to vulnerable mothers and children. Vitamin Angels has used the MVI to identify and contextualize communities where socioeconomic determinants such as food insecurity are major drivers of vulnerability.

The National Service Office is considering how combining the MVI with their existing NFP data can support implementation. For example, NFP provides substance use and mental health screenings to clients. Understanding a community's mental health vulnerabilities and resources can inform the potential needs of clients in those communities and challenges in accessing these services locally. For different types of programs, they might leverage themes around specific challenges/barriers to help prioritize the right programs for the right communities. For instance, another evidenced-based program implemented by the National Service Office, [Child First](#), is particularly focused on providing mental health services and may be able to leverage the "mental health and substance abuse" theme to target more effectively. The National Service Office also wants to measure differences in the ROI of their efforts across communities. The MVI's data ranking counties by number of women of reproductive age can be combined with existing data to identify communities where NFP can have the greatest impact per resource.