The team converged around three fundamental questions about infant mortality: Which infants are most likely not to see their first birthday? Which mothers are most likely to benefit and participate in programming? Which programs yield the best return on investment in the form of saved infant lives? Knowing the questions to answer guided the team to the most appropriate data.

2. Work Across Disciplines

Data and analytics specialists are critical to any big data effort. However, different areas of expertise will bring a unique point of view to questions and answers. This state is leveraging this by bringing together multidisciplinary experts spanning...
medicine, Medicaid, casework, law, and epidemiology. This diversity is invaluable when unpacking and evolving the fundamental questions, as well as interpreting and applying what the data and analytics suggest.

3. Stay Flexible

Rather than relying on a long list of detailed requirements, the state has structured the work around guideposts and remained willing to pivot, based on what data-driven answers reveal. Sometimes those answers affirm a hypothesis. Other times, they point in an unexpected direction. No matter what, the multidisciplinary team has remained engaged in conversation with one another and the machines to determine the best next steps.

More specifically, the first guidepost was creating a descriptive view of moms at risk, which led to identification of three tangible markers of higher infant mortality risk. The second guidepost was understanding the home visiting providers who support new moms and their babies. The third was understanding the geography and social determinants of health at play in areas with higher infant mortality rates. Combined, these can empower the state to identify areas and groups where interventions may have higher impact.

4. Engage the Ecosystem

Beyond the core multidisciplinary team, the state has engaged a variety of stakeholders on the journey to reduce infant mortality. Having shared the initial findings with these collaborators, the team is embarking on co-creating a human-centered delivery model. The model leverages not only the clinical data the team has generated but also nonclinical and qualitative social data.

Together, we are crafting protocols that can be tailored based on specific community attributes and needs (for example, what’s effective in urban areas may not work in rural counties). The beauty of a data-driven approach is that progress and performance can be tracked, with adjustments made as needed and then measured over time.

The delivery model and supporting protocols is where the human-machine collaboration truly takes shape. The state’s caseworkers, health care providers, and other practitioners can increasingly access precise insights into how best to help and support families in caring for their newest and most vulnerable members.

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