Keeping moms and babies in nutrition program

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If you’ve ever been so hungry that you became “hangry”, you understand the importance of nutrition.
Which is why WIC provides nutritional assistance, education, and support and referrals to health care and community services to prenatal moms and their children thru age 5.
Because a healthy start is associated with many positive outcomes:

- School readiness
- Better grades
- Socioeconomic benefits
- Lifelong health outcomes
But we’ve seen our retention rates dropping since 2011, only 28% of children staying in the program through age 5.
We have some theories – the many federal rules can be burdensome and no one likes using paper checks.
But could digging into our data help confirm our theories and identify more ideas for why retention is falling?
From the start, we knew this would be a quantitative project and a qualitative project to fully understand the trends.
So we partnered with the Innovation Office’s Civic Bridge program to bring in Google partners for the qualitative analysis.
Many things may affect participation and retention

- Doctor
- Monthly activity
- Zipcode
- Race / ethnicity
- Income
- Pre, post partum data
- Other programs
- Feeding choice
- Family size
- Preferred language
- Clinic

28% vs 72%
The goal of a predictive model is to look at all of these factors simultaneously to understand what are the strongest indicators of someone dropping out.
Our tree model is able to predict with 83% accuracy who is most likely to drop out.
Three factors in the tree model were especially insightful to the WIC team: feeding choice, prenatal engagement, and English speaking.
Key Finding: Babies who were exclusively formula fed are 50% more likely to drop out
Key Finding: High levels of prenatal engagement are associated with higher retention.
Key Finding: English speakers are more likely to drop out regardless of their race/ethnicity.

Percent of participants who drop out of program by language preference:

- Asian
- Hispanic
- Black / African American
- White / Other

English speaking: [Graph showing higher dropout rates for English speakers]

Not English speaking: [Graph showing lower dropout rates for non-English speakers]
Service Change
Hassles, stigma, and expectations gaps are the primary drivers of the drop in retention, particularly among English speakers. Addressing these key factors can improve retention.
We are using the insights to:

1. Develop an anti-stigma campaign through clinic refresh
2. Integrate new technology to improve clinic flow and experience
3. Develop future physician and community outreach
Data, for the love of the City