

2024-09-12 Hsiao Varghese Waller Ali

To-do

- Add slides (more detail below)
- Generate national hypertension *partial* cascade and compare to NHANES
- Brainstorm how to highlight Pursuant's advantages of accessing historically underrepresented demographic groups or geographic locations.
- Brainstorm how to convince readers using the 1.2 million row dataset is advantageous over the 40.4 million row dataset, and not wasteful.
- Brainstorm how to quantify how many people are in the range between stage 1 and stage 2. Compare prop. in this range to NHANES (if possible) because it seems high.
- Explain why the model estimates higher prevalence in most counties and states (most likely due to the younger but more hypertensive Pursuant pop.)

Considerations

- Key discussion point: in clinic, sometimes the first measurement is elevated due to stress. Subsequent measurements can be lower by over 10 mm Hg.
- General measurement error or calibration issues across kiosks.

New Slide: Recommendations for Pursuant

- Attach questionnaire to everyone who measures their blood pressure at the kiosk (before actual BP measurement to encourage greater response rates)
- The questionnaire should follow the format used in BRFSS and NHANES
 1. Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure?
 2. Are you currently taking prescription medicine for your high blood pressure?
- Why? Real-time surveillance of all levels of the care cascade does not exist

but would be essential for policymakers

New Slide: Questions to ask Pursuant.

1. How recent of data can we incorporate into this analysis (Sept. '24)? Having very recent data will be extremely impressive and highlight Pursuant's ability to provide fast, real-time surveillance data.
2. Details on how the blood pressure monitor sensors are calibrated
3. Was there any mass software/hardware update or change to the blood pressure monitors from 2017-2024? Are all the monitors standardized across the country (same brand, same calibration, etc.)?

Emphasize disadvantages of national surveys relative to Pursuant

1. High cost (especially NHANES).
2. Low response rates (and they're getting worse!)
3. Long processing and tabulation times
4. No county-level representation for NHANES
5. No prevalence and BP measurement for BRFSS
6. BRFSS will not publish data for certain states if they don't satisfy data quality standards (FL in '21, NJ in '19).

Message: Pursuant data, while non-representative of the overall population, can still capture known geographic and demographic trends of hypertension. It is highly complementary and fills in existing gaps with current surveys (BRFSS, NHANES), with further room for expansion.