



Verily is an Alphabet company combining a data-driven, people-first approach to bring the promise of precision health to everyone, every day.

*Wearable devices offer an incredible opportunity to increase diversity in clinical studies, but they need to be accessible to a broader set of users to make this vision true.*

— Kristin Size,

Head of Study Devices, Verily



## The Problem

- » Digital health technologies, such as wearable devices, can allow for remote data collection, allowing studies to be run in a decentralized manner and capturing data in free living situations. However, to do this, a wearable device must be designed to perform across demographically and medically diverse populations in real-world settings.



## The Impact

- ✓ Greater patient centricity
- ✓ Clear communication
- ✓ Team education and cohesion



## The Resources

- » The [DATAcc Framework for Inclusive Development](#) provides targeted questions and checkpoints at each point in the development process that help ensure that inclusion stays a focus. The team used it to think about common problems associated with inclusion in wearable devices such as: skin tone, connectivity, body size, and age-related changes.

Sensor performance:

- » PPG technology has an innate challenges due to green light absorption varying across different skin tones. Using the Framework for Inclusive Development we focused on endpoints that would allow us to evaluate performance. In addition, we prioritized including participants with darker skin, varying hair density, and wrist size in our early technical feasibility studies to optimize the sensor design.

Access & accessibility:

- » We also completed usability testing for items like setup, wearing and care for the device, and completing ePROs.