

# Leveraging Ways of Working and Innovation Methodologies from the Technology Sector to Inform New Approaches to Public Health Initiatives

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## Objectives

Current development and deployment of interventions to improve population health and overcome health inequities have had limited impact. Different approaches are needed to more impactfully overcome poor health outcomes, gaps in access to care, social determinants, and challenges in multistakeholder collaboration. Healthcare stakeholders can benefit from exploring and adopting leading practices from the technology sector to inform equity-oriented health practice. Analysis of innovative technology-centric processes and ways of working that leverage data and iterative decision-making to address public health challenges provide a framework to inform practice change.

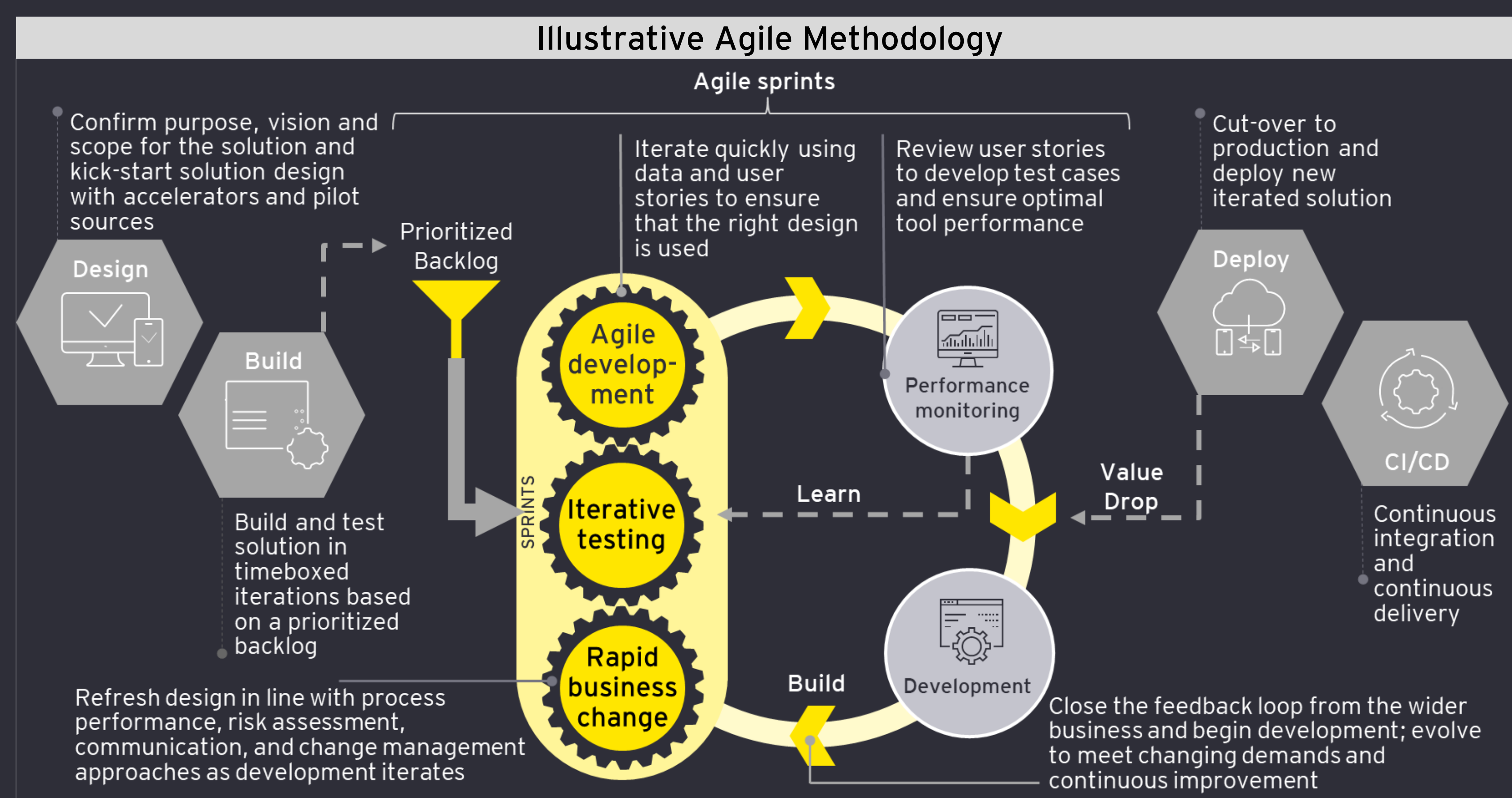
## Methods

A diverse set of project and process methodologies from the technology sector were reviewed, including design thinking and organizational agility. Through an external literature review and an internal review of past work, we examined use cases of technology sector methodologies applied to public health operations. We then assessed potential implications for and application to public health practice and where challenges to and opportunities for greater uptake may exist.

## Results

Several approaches emerge from the technology sector that can positively impact health practice, including putting data and analytics at the center of programs to create the critical feedback necessary to rapidly understand challenges and target interventions. Systems can be built to use data and artificial intelligence (AI) to adapt interventions quickly and respond to evolving population health challenges. There is also an opportunity for health stakeholders to leverage more iterative and technology-centric ways of working related to the execution of assessments and interventions. The Agile methodology, which originated in the field of software development, emphasizes adaptability, collaboration, iterative development, and continuous improvement to address the needs of the customer. This flexible, customer-centric approach is particularly well-suited to public health applications as the needs of patients and communities are paramount for these programs.<sup>1</sup> By leveraging data and analytics, the Agile methodology can be used to rapidly respond to public health challenges.

To address organizational challenges and facilitate adoption of Agile methodology, organizations must intentionally approach change management and educate employees on the basics and benefits of these technology sector ways of working. Additionally, data infrastructure must be strengthened to allow for streamlined data collection and analysis. Implementing Agile along with data and analytics can allow public health programs to better serve their communities through more effective, targeted programs.



### Agile Principles<sup>2</sup>

1. **Individuals and interactions** over processes and tools
2. **Working software** over comprehensive documentation
3. **Customer collaboration** over contract negotiation
4. **Responding to change** by following a plan

### ~50% to 58%

of health organizations\* measure and report health equity metrics on an ad-hoc basis vs. in a consistent, defined cadence or not at all<sup>3</sup>

Dynamic planning and Agile methodology bridges the gap between **strategic planning** and **tactical execution**, measuring health-equity metrics in real-time.

\*health organizations refers to providers, payers, life sciences, non-profits, and government stakeholders working to improve health

### Agile Case Study<sup>4</sup>

**Challenge:** A government health agency based in the United Kingdom needed to rapidly produce, evaluate, and optimize public health interventions and associated messaging for all population groups in response to the COVID-19 public health emergency.

**Solution:** A team of researchers adapted Agile methodology to public health application in the rapid deployment, evaluation, and adjustment of public health messaging.

**Outcome:** The resulting "Agile Coproduction Evaluation" framework can be used in future time-pressured environments and further developed.

## Conclusion

Ways of working that are standard in the technology sector and analytic platforms can be adapted to accelerate the impact of population health and health equity-oriented programs. To change behaviors and realize the full potential, stakeholders will have to overcome capability, technology, and trust challenges by building workforce capacity, skills, and experience in these new ways of working. Using data and analytics, public health organizations can establish data models that can ingest real-time data and achieve data-driven decision making. Combined with Agile methodology, organizations can create iterative, collaborative solutions at scale.