

# COVID-19 MODELING TO POLICY IN WASHINGTON STATE: LESSONS LEARNED

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START  
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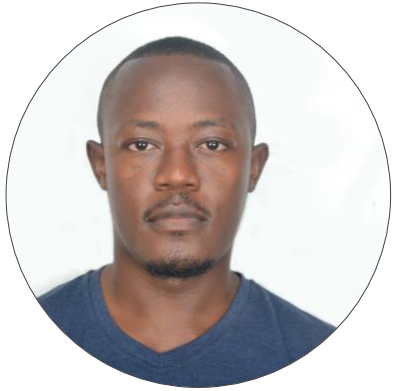
# **AGENDA**

- Introductions
- START Overview
- Project Background & Goals
- Methods
- Findings
- Recommendations
- Questions and Answers



# INTRODUCTIONS

# PROJECT TEAM



**Mathias Lalika, MD**

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Project Manager



**Jeremy Beckford, MPH**

PhD Student, Epidemiology  
Research Assistant



**Jessie Seiler, MPH**

PhD Student, Epidemiology  
Research Assistant



**Akhtar Badshah, PhD, MS**

Public Policy & Governance,  
Business  
Faculty Lead



**Barclay Stewart, MD, PhD, MScPH**

Surgery, Public Health  
Faculty Lead

# **START OVERVIEW**



Leverages leading content expertise from across the University of Washington



Provides high quality research and analytic support to the Bill & Melinda Gates Foundation and global and public health decision-makers



Provides structured mentorship and training to University of Washington graduate research assistants

# **PROJECT BACKGROUND & GOALS**

# **PROJECT BACKGROUND**



Despite substantial generation of evidence during the COVID-19 response, much of it went unutilized in many settings.



There was significant loss of opportunity and, subsequently, substantial loss of lives—which could otherwise be prevented.



Washington State has used evidence to inform policy choices during the pandemic, partly through a close partnership between the Department of Health (DOH) and other stakeholders (IDM, Microsoft, Fred Hutch, UW, etc.)

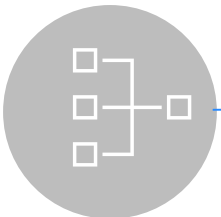
# PROJECT GOALS



Identify best practices and enabling environmental factors, such as data sharing agreements, in modelling-policy partnerships



Gather lessons learned on how to efficiently (re)deploy technical capacity (e.g., databases, modeling tools, etc.)

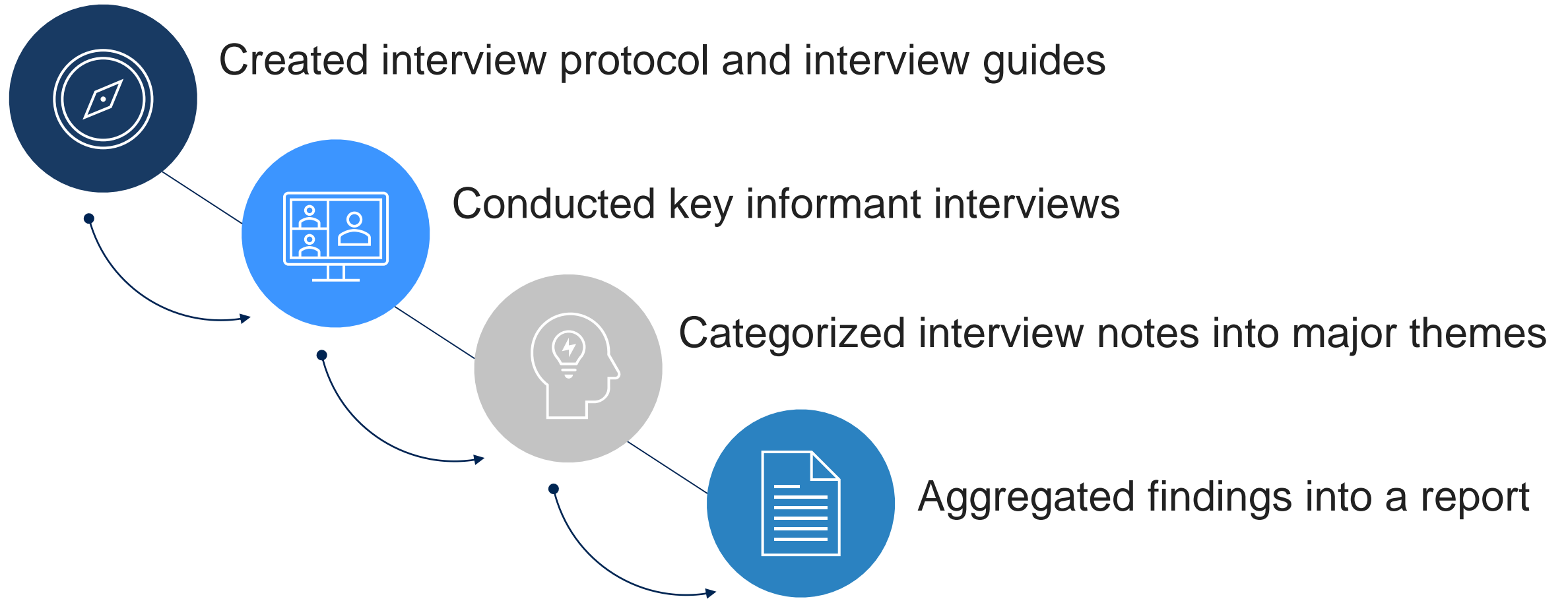


Understand what systems infrastructure is needed for a modeling-policy relationship to be successful.



# **METHODS**

# METHODS



# INTERVIEWS

- 9 research key informant interviews
- 3 policy key informant interviews

4	Washington State Department of Health
3	The Institute for Disease Modeling
3	Fred Hutchinson Cancer Research Center
1	Microsoft AI for Good Research Lab
1	Institute for Health Metrics and Evaluation

# **MODELING-POLICY PARTNERSHIP**

# MODELING-POLICY PARTNERSHIP

King County took social distancing measures

DOH formed the modeling consortium which initially included members from DOH and IDM

Consortium membership grew with the inclusion of additional organizations

IDM published a working paper with model-based estimates of COVID-19 in King and Snohomish counties

DOH reached out to UW SPH who provided a list of individuals available to join the modeling consortium



# MODELING-POLICY PARTNERSHIP



## COMMUNICATION

Weekly meetings for the modeling consortium and with the governor's office



## AVAILABILITY

Membership in the consortium was voluntary

Member's organizations were willing to allow them to shift their focus to COVID-19



## EXPERTISE

There were modelers, individuals who assisted with translating models, and those who assisted writing the Situation Reports



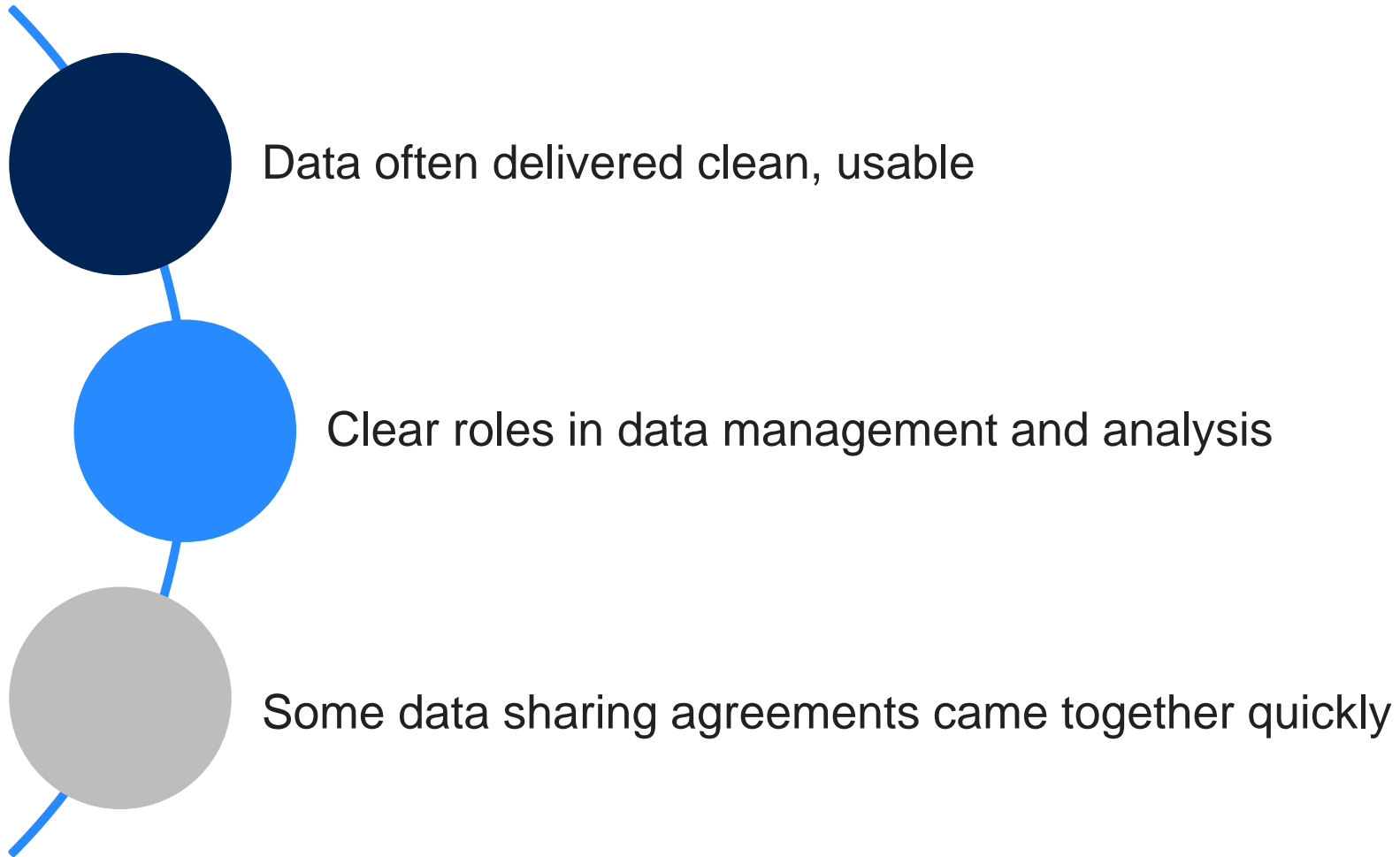
## SHARED GOALS

Although other modeling groups were invited, some had a different focus. The modeling consortium's focus was on disease transmission and where the state was headed in the pandemic

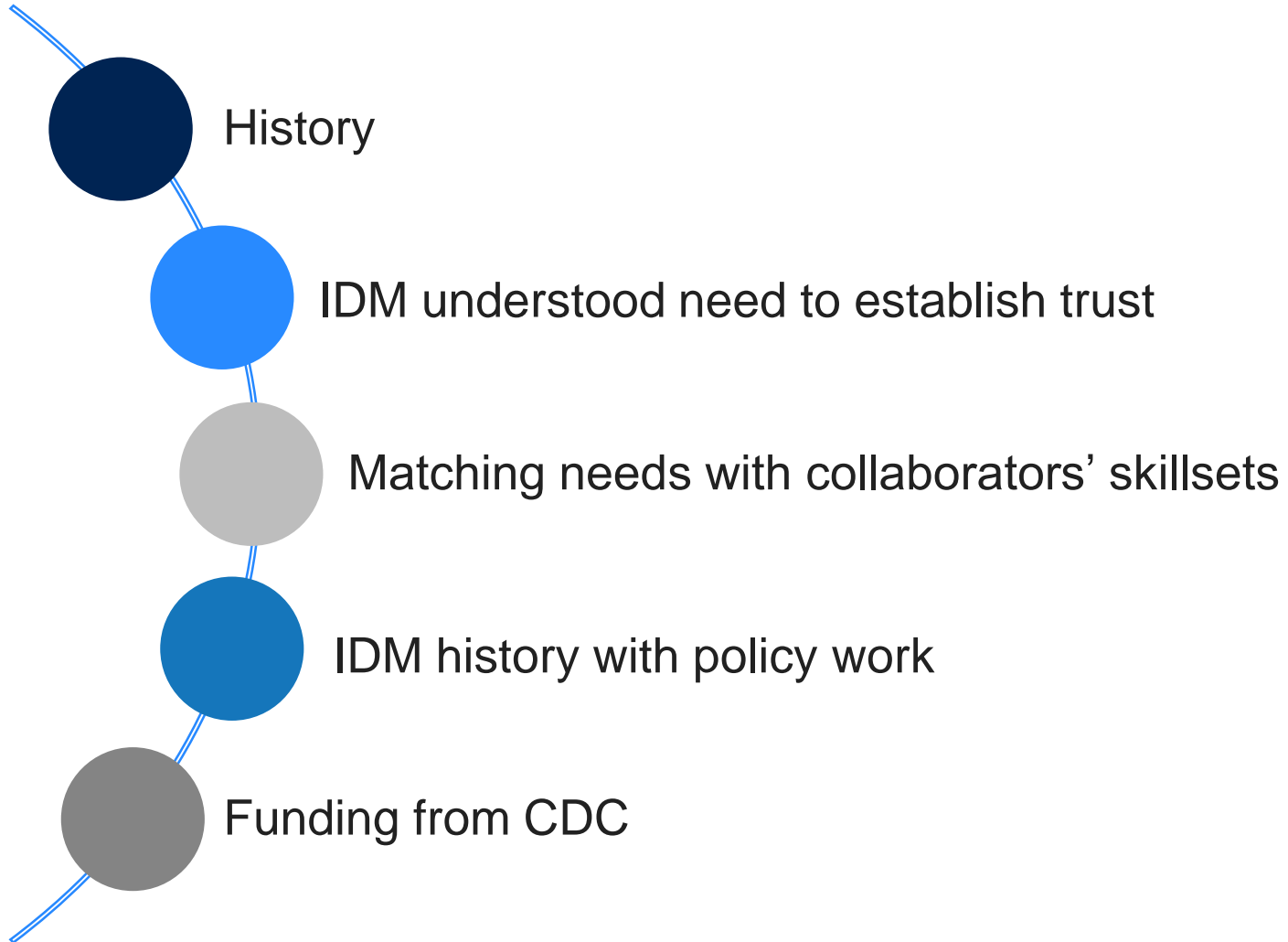
# FINDINGS

# **WHAT WORKED WELL**

# DATA



# RELATIONSHIPS



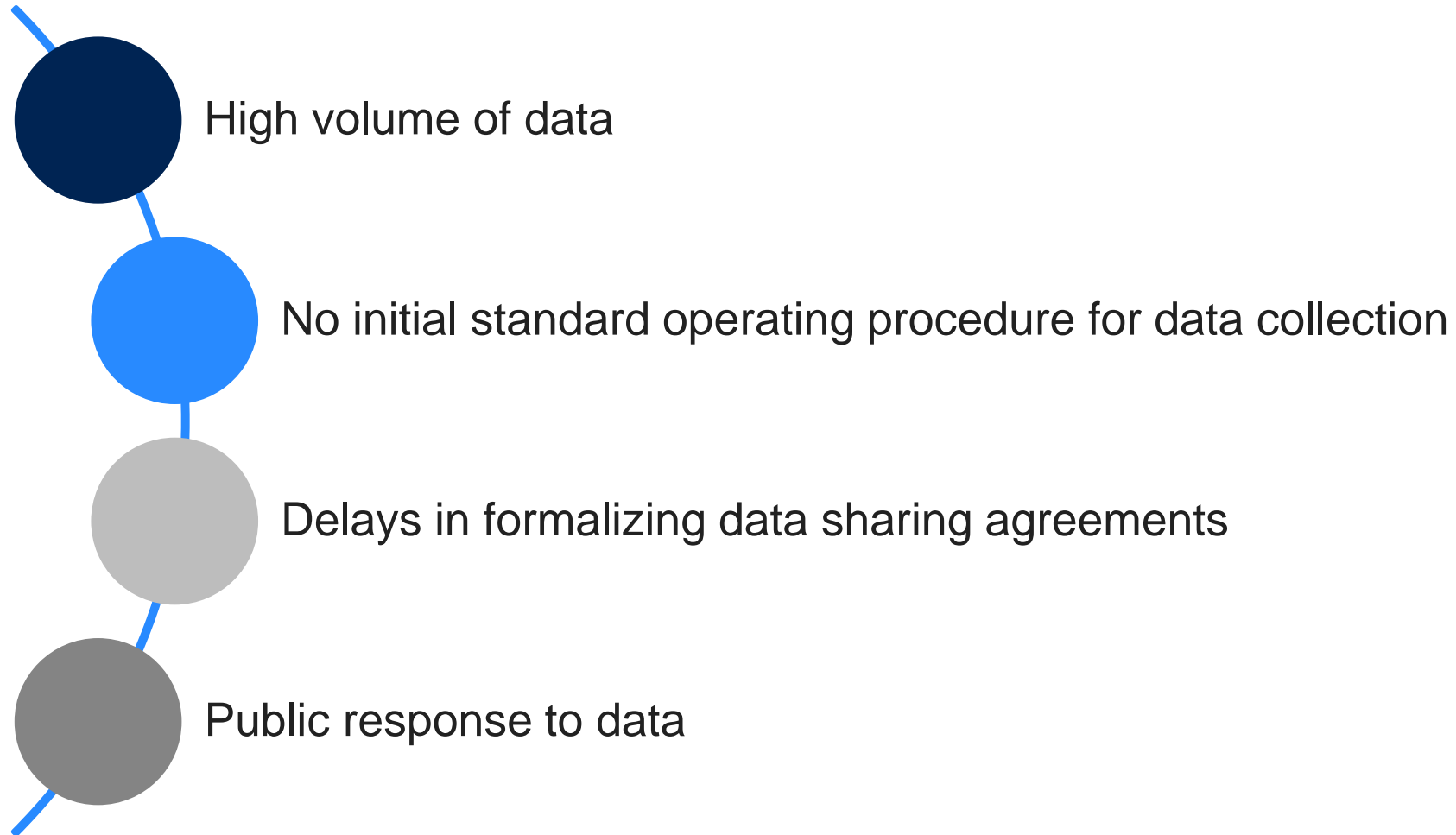


# CAPACITY

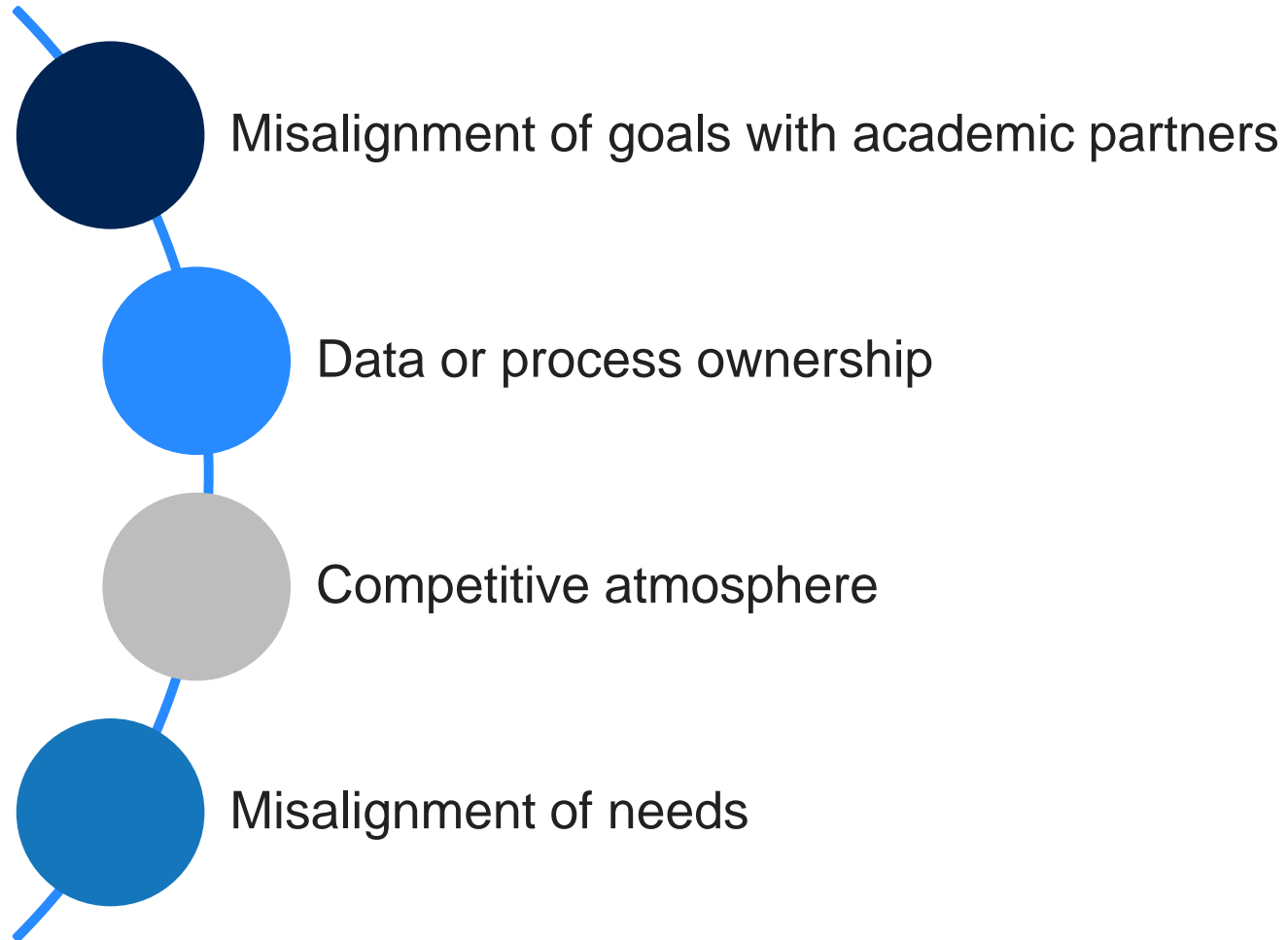


# GAPS

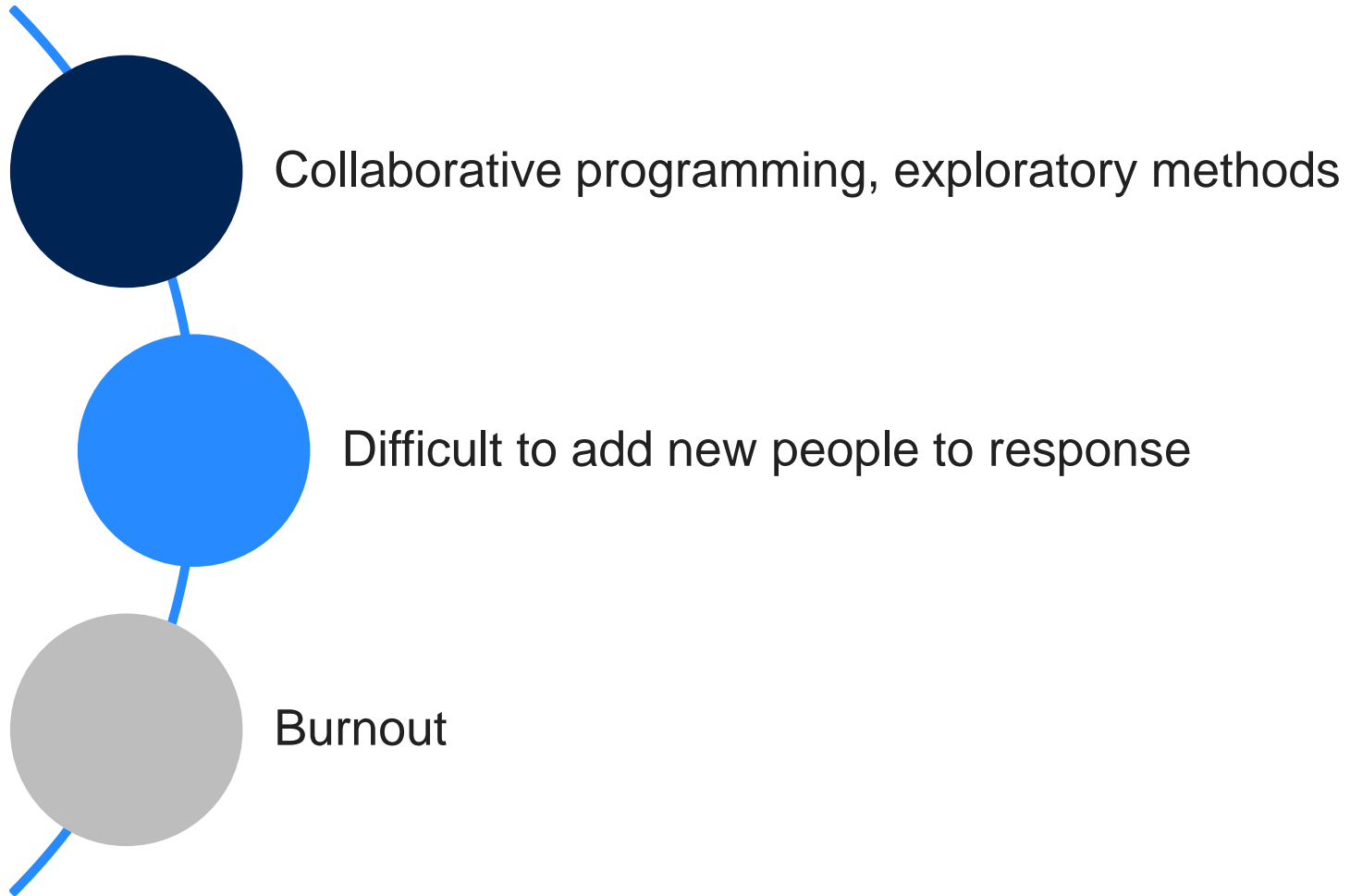
# **GAPS: DATA**



# **GAPS: RELATIONSHIPS**



# **GAPS: CAPACITY**





# **KEY TAKEAWAYS**

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- The existing culture at the Washington State DOH of seeking and leveraging experts led to identifying the need for modeling and approaching modelers during the state's 2020-21 COVID-19 response.
- The importance of the specific expertise in modeling in informing policy decisions, the organizational culture, workstyle compatibility, and the desire to help combat the COVID-19 pandemic influenced the policymakers and modelers' willingness to collaborate and was critical to the successful partnership.
- Having systems infrastructure in place beforehand could lead to more effective modeling-policy partnerships in case of future public health emergencies.



# RECOMMENDATIONS

# **RECOMMENDATIONS: TECHNICAL**

## **ACADEMIC OR RESEARCH INSTITUTIONS**

- Develop curricula across departments geared towards modeling and translation training
- Provide incentives (academic, funding)

## **PUBLIC HEALTH AUTHORITIES**

- Develop adequate data management infrastructure
- Dedicate budget towards hiring data modelers

## **FUNDERS**

- Develop funding mechanisms (technical capacity, data management infrastructure)



# **RECOMMENDATIONS: RELATIONSHIPS**

## **ACADEMIC OR RESEARCH INSTITUTIONS**

- Implement secondment with policymaking bodies
- Redesign recruitment, retention, and promotion criteria of researchers

## **PUBLIC HEALTH AUTHORITIES**

- Implement exchange programs with research institutions
- Prepare comprehensive data-sharing agreements

## **FUNDERS**

- Provide incentives to researchers (knowledge translation-oriented proposals, delayed effects of grant impacts)
- Incentives for the institutions



# **QUESTIONS AND ANSWERS**

# THANK YOU



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