

Data & Analytics Innovations in Public Health

A stylized graphic on the right side of the slide. It features a light green heart shape with a thick outline. From the top of the heart, three light blue leaves emerge, each with a white vein. The background of the slide is white, with a decorative green and teal gradient at the bottom.

Justin Angevaare, MSc, PhD
Data Scientist, Data & Analytics

Julian Martalog
Manager, Data & Analytics

Introduction



- **Innovation a strategic value and goal**
- **Spectrum of innovation**
- **Five initiatives highlighted for potential impact in public health practice**

1. Strengthening Data Governance



- **Established a structured data governance framework to ensure data quality and accessibility.**
- **Plans to extend data sharing capabilities with external community partners.**

2. ISPA Notification Process Enhancements

- **Shifted from provincial tools to a flexible, in-house document generation tool.**
- **Successfully sent over 12,000 tailored immunization notices in the 2023/24 school year.**
- **Achieved better clarity and reduced administrative workload.**



3. Open-Source Initiatives

- **Embracing open-source software to foster innovation and knowledge sharing across public health units.**
 - Wastewater-based epidemiology
 - Well water test data retrieval
 - Vaccination history visualizer (used for ISPA notices)
 - Developers guide
- **WDGPH creating a model for other PHUs to share and collaborate on transformative innovative approaches**



4. AI Platform and 5. Chatbot Expansion



- **Adopted an AI platform to accelerate the development and deployment of automated solutions**
- **Data governance foundational for AI**
- **Exploring expansion of Chatbot and application of AI to detect emerging public health concerns**

Conclusion

- **WDGPH continues to build on its strong data and innovation culture**
- **Initiatives enhance public health practice locally**
- **Collaborative approaches strive to impact the broader public health system**

