

# The digital transformation of public health requires new competencies, training models and interdisciplinary partnerships.



## Why is it important?

The COVID-19 pandemic highlighted gaps in public health workforce's capacity to deploy digital technologies (DTs). New competencies, new training models and inter/transdisciplinary partnerships are required for public health practitioners and researchers to fully leverage the potential of DTs.

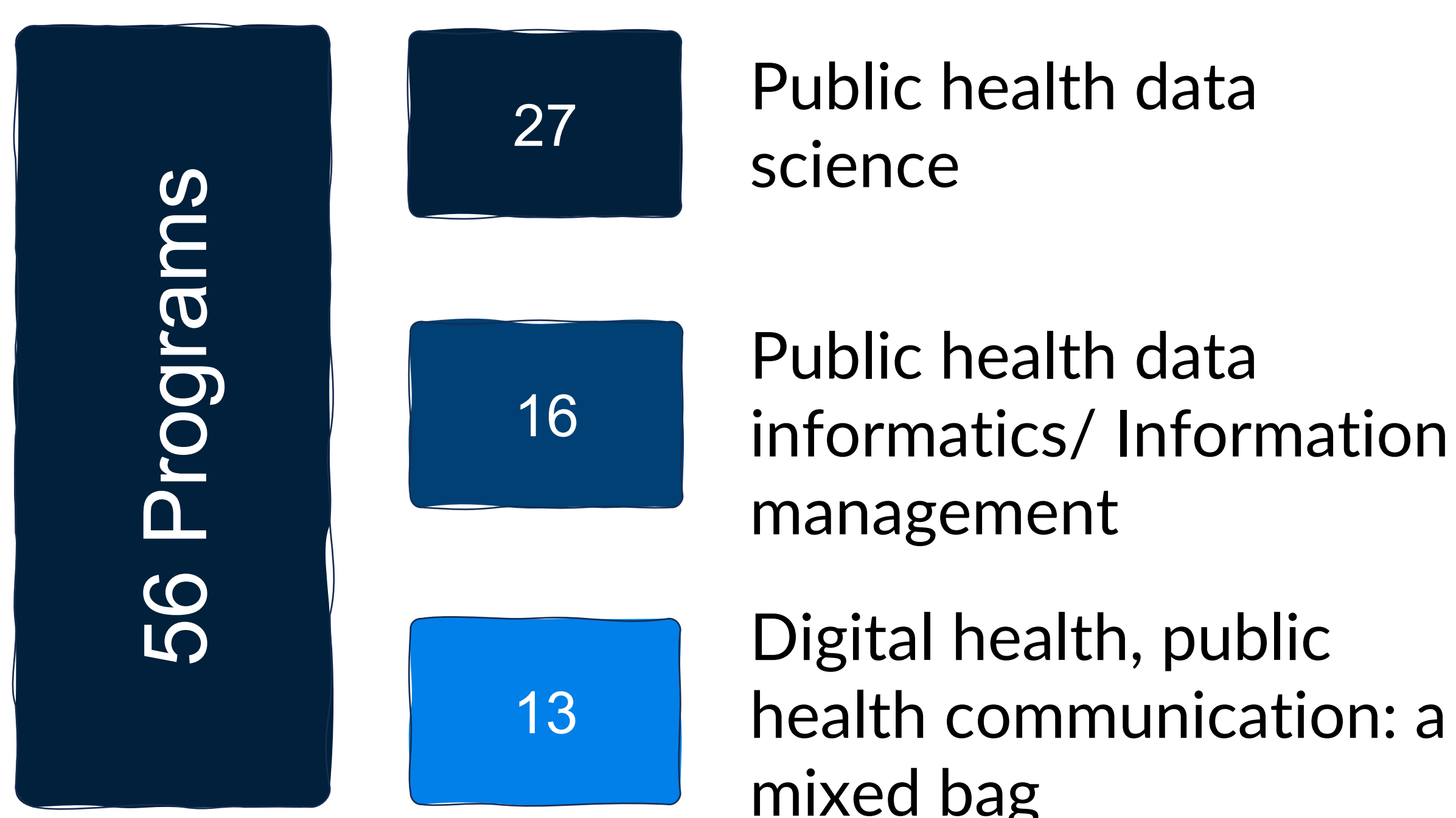
## What did we do?

We conducted a rapid literature review following the Joanna Briggs Institute's framework and WHO guidelines, to identify training approaches and practice competency recommendations. We also conducted an environmental scan of digital public health programs across the world, supplemented by interviews with program developers or directors.

## What did we find?

From the Rapid Review: 12 articles, 45 unique competency statements in 8 core competency categories. 12 relevant disciplines, 7 domains of public health. Recommendations for training approaches include adapting degree-awarding programs and professional development and hands-on practice in multi/interdisciplinary contexts.

From the Environmental Scan: A total of 56 degree-awarding programs from 13 different countries. 51 at graduate level, 4 at undergraduate level, 1 Bachelor's and Master's in 3 broad categories.



## Fostering Workforce Capacity for the Digital Transformation of Public Health in Canada: Findings from a rapid review and an environmental scan

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### Public health sciences

- Develop and ethically apply research methods including data science, statistical genetics and omic technologies (i.e., exposomes), computational biology, epidemic and infectious disease modelling to public health problems.

### Communication

- Use mass media, electronic technology, and communication methods (e.g., social media) for public health communication, health education and promotion.

### Partnerships, collaboration and advocacy

- Use new media to conduct advocacy e.g., social media.
- Manage Information technology (IT) operations related to project or program and those managed by external organizations.

### Data, data systems management & governance

NEW

- Apply policies and security protocols to protect confidential information in electronic files and computer systems while maximizing the benefits to public health.
- Develop public health information systems that are interoperable with other relevant information systems.

We identified a preliminary list of competency statements within the 12 included articles from the rapid review and provide examples here.

### Policy and program planning, implementation and evaluation

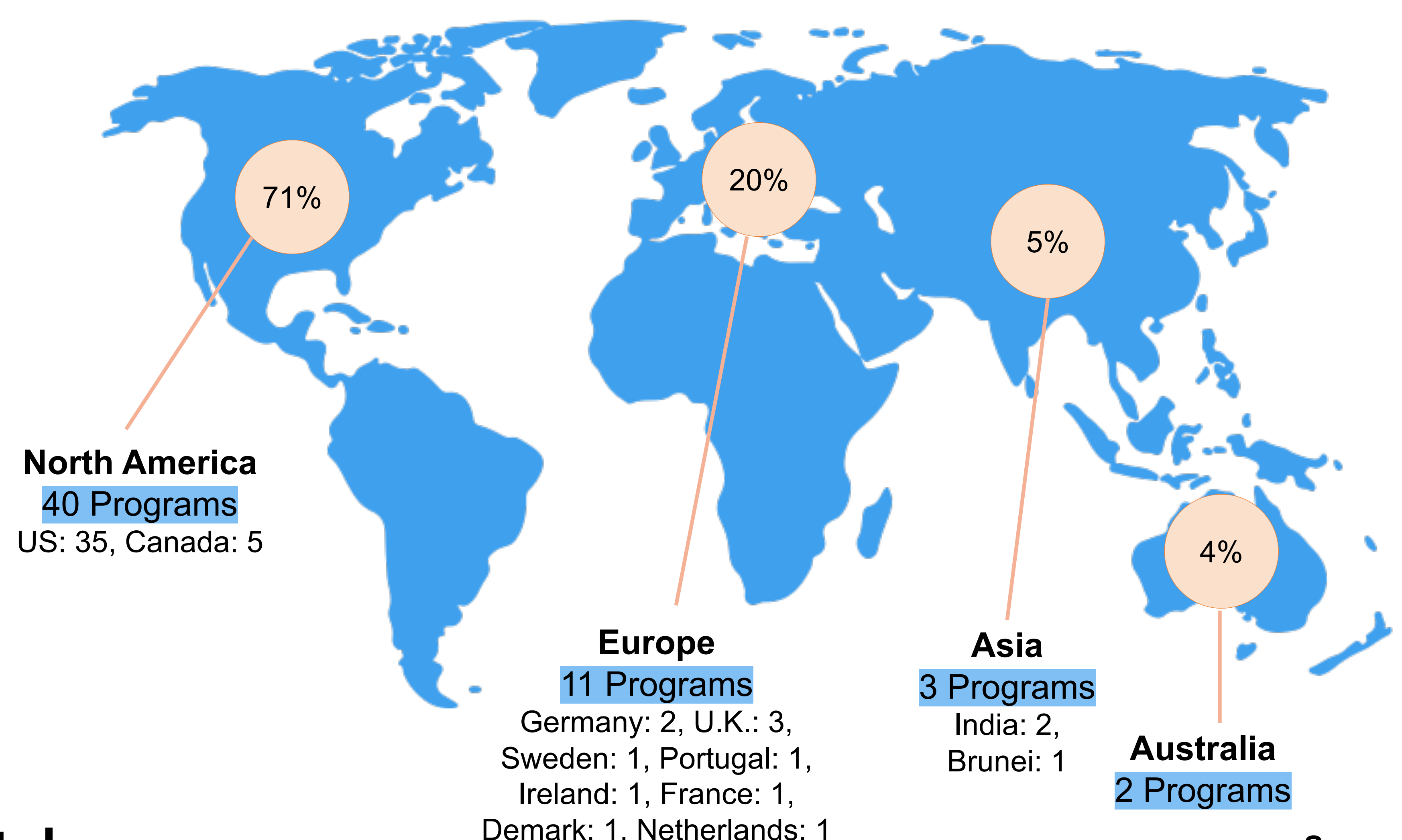
- Design, implement and evaluate population-based projects, programs or interventions that use social media as a communication platform and a tool for public health education and promotion.

### Leadership

- Support development of strategic directions for public health informatics within the enterprise.

### Diversity and inclusiveness

- Develop team approaches that bring together diverse disciplines and organizations to develop new and creative ways of designing and implementing studies and addressing public health concerns.



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