

ArcGIS Pro Essentials for Public Health Series: Part I

Course Length: 2 days
ArcGIS Version: Pro 3.x
App: ArcGIS Pro

Overview

Public health teams in environmental health, epidemiology, and community health rely on location to understand who is at risk, where hazards exist, and which interventions will have the most impact. In this course, participants learn how to use ArcGIS Pro to map the spatial distribution of health determinants, visualize social and economic patterns, and identify relationships between hazardous facilities and sensitive populations. Through realistic scenarios, such as locating elder care facilities near flood-prone areas, tracing potential chemical leaks to downstream aquifers, or finding disease hotspots near schools, you will learn how to turn your program's data into maps and spatial analyses that inform prevention, preparedness, and response.

Audience

This course is for public health professionals who want to create maps and analyze and explore data in ArcGIS Pro as part of their daily work. It is especially valuable for staff in epidemiology, environmental health, community health, emergency preparedness, and related programs who need a practical, non-programming-heavy introduction to GIS for decision support, reporting, and communication with stakeholders.

Topics Covered

Day 1

- Overview of GIS – Build a clear understanding of what GIS is, how it supports public health workflows, and where ArcGIS Pro fits within the ArcGIS platform your organization may already use. (What Is GIS?; What Can GIS Do?; ArcGIS Platform)
- ArcGIS Pro Basics – Learn how to start a project, navigate maps, work confidently with the ArcGIS Pro interface, and explore data in your layers using the Contents and Catalog panes. (Starting a Project; Parts of the Interface; Map Navigation Tools)
- Using Symbolology to Analyze Data – Apply different symbolology methods to highlight hotspots, vulnerable populations, and service gaps, making patterns in your data easy to interpret and share. (Applying Symbolology in ArcGIS Pro; Symbolology Choices)

- Asking Questions of Your Data – Perform selections and queries, by attribute and location, to answer targeted questions such as “Which facilities fall within this buffer?” or “Which census tracts meet multiple risk criteria?” (Making Selections; Interactive Selection; Select By Attribute; Select By Location)

Day 2

- Understanding GIS Data – Become familiar with common GIS data formats (geodatabases, shapefiles, tables, text and raster files), where to find them, and how to start a new ArcGIS Pro project using your program’s data. (GIS Data Types; Understanding the ArcGIS Pro Project; Finding and Adding Data to a Map)
- Connecting to a Portal – Learn what Portal is, how cloud-hosted content is organized, and how to discover and share public health layers securely within your agency or with partners. (Portal Access; Finding Content in the Cloud; Sharing to the Cloud)
- Designing Your Map for Presentation – Create clean, informative map layouts with frames, legends, labels, and other elements so you can produce maps for briefings, reports, and grant applications. (Working with Map Frames; Working with Elements; Sharing Layouts)
- Geoprocessing – Get an introductory understanding of key geoprocessing tools, such as buffers, overlays, and spatial joins, and use them to perform basic public health analyses. (Geographic Analysis; Running Tools)

Format

In-person or live virtual instruction with hands-on practice and course materials you can keep. It is also available as a self-directed course to take on your schedule.

Prerequisites and Recommendations

Attendees should be comfortable working on a computer and navigating the folder structure in Microsoft Windows®.