Leveraging GIS to draw health data out of silos, transform decision making

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Disclaimer: Dummy data has been used in this presentation.
Need for Evidence-based Public Health

To Manage: Ensure efficient implementation of program activities

To Monitor: Track progress and initiate course correction

To Plan: Plug service delivery gaps to improve health outcomes
Issues That Hinder Data Use

**Availability of Data**
- Coverage and collection of health data

**Quality of Data**
- Timely, complete, and accurate data

**Accessibility of Data**
- Ease in retrieving and analyzing data
Innovation to Enhance Data Accessibility

A case in point

Haryana National Health Mission

SHSRC, Haryana

USAID-funded HFG Project

Partnership to Innovate

Haryana
An interoperable GIS application that pulls together data from different health information systems and brings it onto a visually rich interface for display as interactive digital maps.

Enables users to easily access and analyze a major quantum of data and use it to make robust evidence-based decisions.
HHGIS: Building Blocks

- Built using Leaflet, a popular open source JavaScript mapping library
- Shape files converted from shp format to GeoJSON format, as it is simpler, lighter, and handled well by Leaflet
- Plugin free HHGIS works on any modern browser in any operating system
**Interoperability:** Pulling data from different independent applications to enable simultaneous accessing and maneuvering of huge and diverse data

- Data fetched from different applications through Simple Object Access Protocol (SOAP) web service
- Multiple applications linked through Mother Child Tracking System (MCTS) ID as the master key
A Robust Analytical and Monitoring Tool

- **Flexible interface** to access and analyze data from different applications
A Robust Analytical and Monitoring Tool (Contd.)

Custom indicators to take analysis beyond existing data frames

[Map of Haryana with data on anaemia rates]
Training and Adoption

- Working application rolled out
- Haryana state and district M&E staff provided hands-on training
- Application handed over to the Haryana technical team

“I feel that data needs to be made available in an innovative, intuitive format, such that allows users to play with data, learn from it, and use it.”

“The same task of data comparison that earlier took me several hours or even days will now be completed in a few clicks.”

THANK YOU