



Iraq

Development of a GIS System to Support the Iraq Ministry of Health Primary Health Care (PHC) Service Coverage Mapping and Reporting and Expanded Programme on Immunization (EPI) in Iraq



Background



More than 3 decades of humanitarian crisis, mass population displacement, migration, unemployment and poverty have significantly affected the Iraqi government capacity to upgrade the level of public services, including in the health sector. Immunization programs have been particularly affected by the crisis and according to UNICEF, “even though Iraq has achieved 80% and 82% coverage for DTP3 containing antigen in 2016 and 2017 respectively, Iraq is among the top ten countries globally in term of DTP3 unvaccinated children (about half million children) which highlight the urgent need to reach for those missed communities and unvaccinated children”.



UNICEF, WHO and the Iraqi Ministry of Health (MoH) identified a need to digitize MoH’s Expanded Programme on Immunization (EPI) to better support the Iraqi population accessing immunization services and in particular currently untargeted groups. Without updated population data and updated primary health centers catchment areas, MoH lacks crucial information to adjust its immunization strategy. The integration of Geographic Information System (GIS) with existing MoH information systems can cover this initial gap.



Proof of concept models were developed using real world data to demonstrate the potential use and value of GIS and spatial statistics for improved registration and recording of service delivery to facilitate essential microplanning strategies and reporting of health intervention coverage. The models utilized anticipated population numbers and distance from Primary Health Care Centres (PHCC) to delineate catchment areas. Development of a GIS system to map PHCC catchment areas and population data will support identification of underserved populations and support planning for equitable access to health services.

Donor: UNICEF Iraq

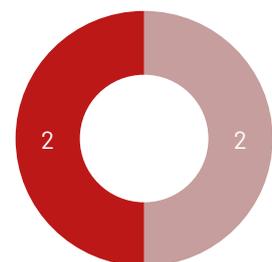
Current project:
Development of a GIS System to Support the Iraq Ministry of Health Primary Health Care (PHC) Service Coverage Mapping and Reporting and Expanded Programme on Immunization (EPI) in Iraq

Project Budget:
USD 271,495

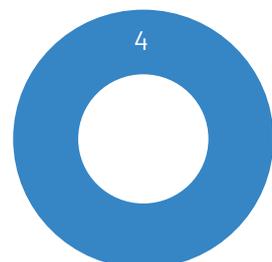
Project Duration:
October 26th, 2022 – February 28th, 2023

Personnel

Number of personnel: 4



■ Women
■ Men
■ International



Project Activities



iMAP, in coordination with UNICEF and the Iraqi MoH, will support development of a GIS system to support the Expanded Programme on Immunization.



Following the definition of key health service indicators, iMAP will provide GIS training to MoH EPI focal points to delineate the PHCC catchment areas across 155 health districts in Iraq and create a comprehensive mapping of its operational footprint.



Buffering of essential health services coverage, mapping of settlement and population density, as well as epidemiological outbreaks, will enable support an equity spatial analysis to identify potentially underserved populations.



The GIS system will also serve as a tool to link digital birth registrations with the EPI, for more effective monitoring of childhood immunization uptake and will be expanded to include other essential health services.



The creation of GIS-based strategic and operational dashboards, which integrate interactive maps and charts for geospatial and statistical analysis, to enhance the common operating picture for informed planning and decision-making through the creation of EPI microplans.



Following the development of the GIS tools and equity spatial analysis, iMAP will identify existing gaps and provide recommendations to enhance health services surveillance. iMAP will develop a report and roadmap, outlining a phased recommendations workplan to support the MoH in developing its existing IM and GIS systems.



The roadmap will outline the steps to be taken to improve its GIS capacity, so that geospatial analysis can be used to effectively solve planning, resource allocation, operational and reporting challenges.

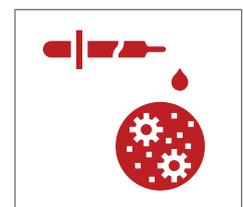
Expected Outcomes



Improved access to evidence based data on updated PHCC catchment areas



Identification and geolocation of underserved population groups



Improved Capacity from MoH Staff to Update and Maintain the Geographic Information System