

health indicators at the sub-national level. This provides policy makers with clear evidence for planning policy interventions to reduce health disparities.

096

THE USE OF SPATIAL EPIDEMIOLOGY IN THE ANALYSIS OF HEALTH INEQUITY

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Background As countries like the Philippines scale up health service provision and increase financial protection for Universal Health Coverage (UHC), special attention must be taken to ensure equity.

Objectives This study aims to demonstrate the potential of geospatial analysis as a tool for unmasking and visualizing geographic health inequities in a form easily communicable to policy-makers.

Methods Data on contraceptive prevalence rates (CPR) and poverty incidence were analyzed at the provincial level. An open-source geographic information system (GIS) software, GeoDa, was used for analysis. Descriptive maps were generated and modified to reflect the Department of Health's thresholds for CPR. Maps for univariate and local indices of spatial analysis (LISA) with significance and cluster maps were also generated.

Result Descriptive maps generated show that less than half of the provinces (34 out of 82) were above the CPR threshold. The 48 provinces under the threshold are locations where actions are needed to eliminate health inequities. However, geography accounts little for CPR variations=4.4%. Therefore, policymakers should explore other determinants of CPR distributional inequity. Upon further analysis, LISA cluster maps show that priority areas for intervention among the 48 provinces are Leyte and Surigao del Norte (including Dinagat Island) because they are both "cold spots" of CPR and "hot spots" of poverty incidence, meaning they are low CPR areas with high poverty incidence.

Conclusion Geospatial analysis is useful for its ability to aggregate large amounts of data into a single visualization. Such visualizations clearly and quickly expose inequitable distributions of