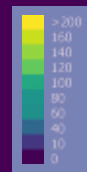


# MAKING DECISIONS COUNT EVERYONE, EVERYWHERE



WorldPop

# WHO WE ARE

Governments across the world rely on subnational scale data on population distributions and characteristics to plan and monitor progress towards development goals. Traditional data sources, however, are often outdated and not detailed enough for targeted interventions. With a global population growing by over 80 million a year, and 35-40 million migrating every 5 years, keeping track of people can be a tricky proposition, particularly for low- and middle-income countries that have fewer resources, are afflicted by conflict, or have to work in challenging terrain.

WorldPop is based at the University of Southampton and maps populations across the globe. Since 2004, we have partnered with governments, UN agencies and donors to produce almost 45,000 datasets, complementing traditional population sources with dynamic, high-resolution data for mapping human population distributions, with the ultimate goal of ensuring that everyone, everywhere is counted in decision making.

# WHAT WE DO

## MAPPING POPULATIONS TO BETTER SUPPORT PEOPLE

WorldPop produces estimates of populations with age/sex breakdowns for each 100m x 100m grid square on the planet. These function as default, open access datasets for UN agencies planning humanitarian and development interventions, and help governments fill census gaps.

## MAPPING HEALTHCARE COVERAGE TO TARGET INTERVENTIONS

Globally, almost 10 million children remain completely unvaccinated, accounting for nearly half of all vaccine-preventable deaths. WorldPop provides maps that allow health organisations and governments to better target their vaccination drives.

## MAPPING POPULATION MOVEMENTS FOR HEALTH

There are an estimated 281 million international migrants globally. A better understanding of population movements enables cost-effective targeting of health policies to vulnerable groups and interventions to curb the spread of disease, including Covid-19.

## DEVELOPING SOLUTIONS TOGETHER

Equally important is the work done to strengthen the capacity of national statistical institutions, run co-development projects, and provide open data tools for spatial demography. This puts the power of population data into the hands of researchers and policymakers for the greater good.



# CREATING MAPS THAT INFORM POLICY



## TO CREATE ITS HIGHLY PRECISE POPULATION MAPS, WORLDPOP

draws on multiple demographic and geospatial datasets using top-down or bottom-up approaches

### COMBINED WITH

### PROCESSED THROUGH

### RESULTING IN

### TO PRODUCE

#### TOP-DOWN

Existing population counts disaggregated by administrative unit, such as national census data (top-down data)



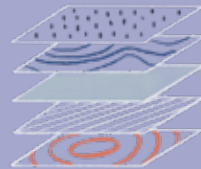
#### BOTTOM-UP

Geolocated population counts or characteristics from localised survey samples (bottom-up data)



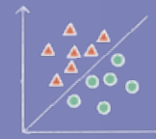
#### GEOSPATIAL DATA

on settlement types, individual building shapes, elevation, slope, vegetation types, road infrastructure and climate



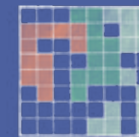
#### STATISTICAL MODELS

that utilise the geospatial data to redistribute administrative unit population counts (top-down approach) or make predictions in unsampled locations (bottom-up approach)



#### GRIDDED POPULATION DATASETS

of around 100m x 100m to support high-resolution predictions of population counts, birth rates, vaccination coverage and disease prevalence



#### FINE-TUNED ANALYSES

that can be used by governments, researchers and other stakeholders working in development and humanitarian sectors, to quantify impacts, measure progress towards goals and target interventions



Satellite graphic: Andrzej Olchawa, CC BY 2.0  
Photo (bottom left): Benson Kua, CC BY 2.0  
Photo (bottom right): Bhupendra Shrestha, CC BY 4.0



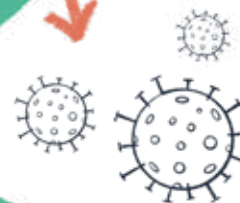


## GLOBAL DATASETS FOR GLOBAL AGENCIES

The United Nations Satellite Centre (UNOSAT) uses WorldPop data to estimate population sizes impacted by natural disasters as a basis for assessing aid requirements. The data are a key component of health information systems in 73 countries and form the demographic basis of Covid-19 models supporting decision making globally.

## BREAKING DOWN POPULATION MOVEMENTS

WorldPop leads work on modelling and mapping gender-disaggregated international and internal population flows in 121 countries in collaboration with the UN International Organization for Migration. Partnerships with government statistical agencies and UN agencies are enabling WorldPop to implement similar analyses to fill demographic data gaps and build evidence to guide migration policies.

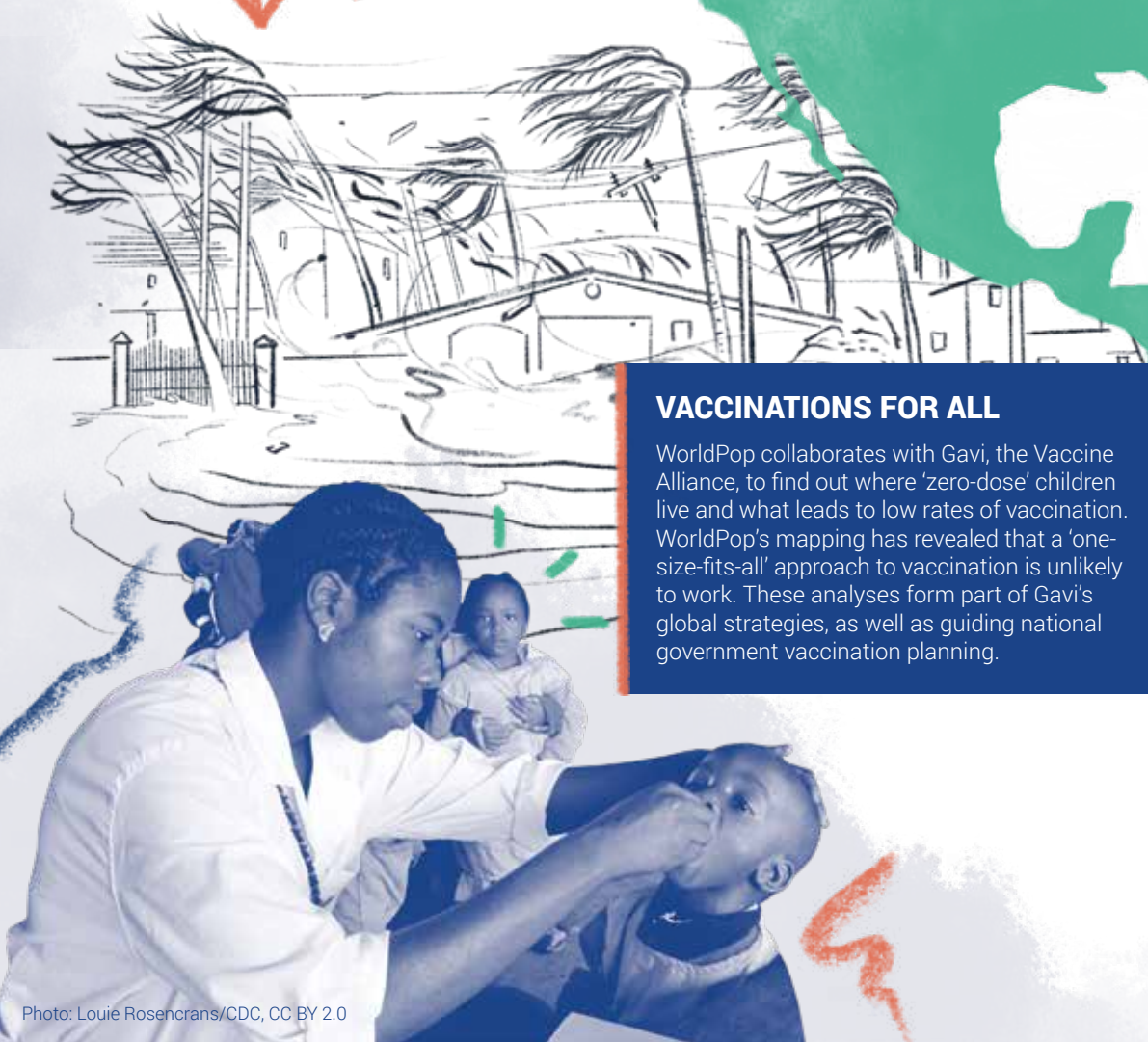


## VACCINATIONS FOR ALL

WorldPop collaborates with Gavi, the Vaccine Alliance, to find out where 'zero-dose' children live and what leads to low rates of vaccination. WorldPop's mapping has revealed that a 'one-size-fits-all' approach to vaccination is unlikely to work. These analyses form part of Gavi's global strategies, as well as guiding national government vaccination planning.

## STRENGTHENING POPULATION MODELLING CAPACITY

WorldPop has co-developed models with the United Nations Population Fund (UNFPA) and the national statistical offices of Brazil and Colombia, including the development of open training materials. These activities assist the production of high-resolution gridded population estimates by combining existing data sources, enabling partner countries to build sustainability and the adoption of novel methods regionally.

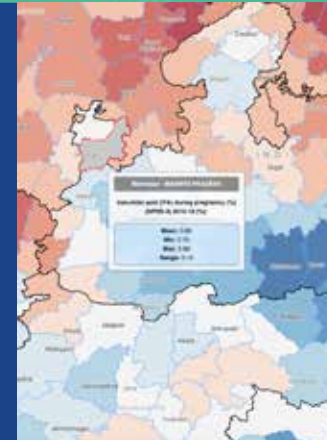


## BESPOKE DATASETS FOR NATIONAL AGENCIES

Burkina Faso recently held a census, but about 20% of its territory remained off-limits due to security issues. WorldPop co-developed a model with the national statistics agency to estimate population distributions in unsurveyed areas, incorporating over 2 million people into the national census. WorldPop currently leads more than 20 active population modelling projects in partnership with governments to produce data to guide decision making and support census processes.

## DEMOGRAPHIC AND HEALTH ATLASES

To help review the work of the Children's Investment Fund Foundation (CIFF), WorldPop mapped 1km x 1km grids of 28 sets of key health and development indicators for the whole of India. An open access interactive atlas now allows the visualisation of child and maternal health and development across the country. WorldPop's spatial data infrastructure team develops portals, atlases and tools to support visualisation, data interaction and replication of methods across projects.



## MOBILE PHONE MOVEMENTS TO TRACK DOWN MALARIA

From 2004-11, annual malaria cases in Namibia dropped by 98%, but elimination requires locating isolated cases, as infected individuals continue to move between communities. WorldPop reconstructed travel patterns combining mobile phone records with high resolution maps of the risk of malaria infection across northern Namibia. Following the study, the Ministry of Health was able to target bednet distribution – an effective use of scarce resources.



# PARTNERING FOR IMPACT

**WORLDPOP HAS DELIVERED OVER 35 PROJECTS IN THE LAST DECADE.**

We have partnered with governments, implementing agencies and funders across the world, including the Bill & Melinda Gates Foundation, UNFPA, Wellcome Trust, UNICEF, CIFF, Gavi and the World Bank. We are the global geospatial data analysis centre for Countdown to 2030 and the population mapping lead for GRID3.

**OUR TEAM HAS PRODUCED OVER 300 PEER-REVIEWED JOURNAL PUBLICATIONS THAT HAVE BEEN CITED OVER 36,000 TIMES.**

WorldPop provides the default subnational population data for all UN agencies, many of which we have expert group membership with, and our data feed into many health applications used by governments. WorldPop places strong emphasis on capacity strengthening and co-development of outputs so our methods and data are widely used to solve real-world problems, and we run training and knowledge exchange activities.

# WHERE WE'RE GOING

Crucially, WorldPop's open demography approach signifies that anyone, anywhere is now able to harness the power of spatial datasets to work for the welfare of everyone, everywhere. WorldPop has collaborated with a diverse range of partners across the world and, as more stakeholders recognise the value of its work, its impact has grown in scale and relevance.

It is significant that WorldPop not only uses past records to better chart current progress towards global developmental goals, but also deploys near real-time data in order to forecast the future, and thereby aid decisions on public health and humanitarian crises.





**FIND OUT MORE:**

[www.worldpop.org](http://www.worldpop.org)  
[@WorldPopProject](https://twitter.com/WorldPopProject)