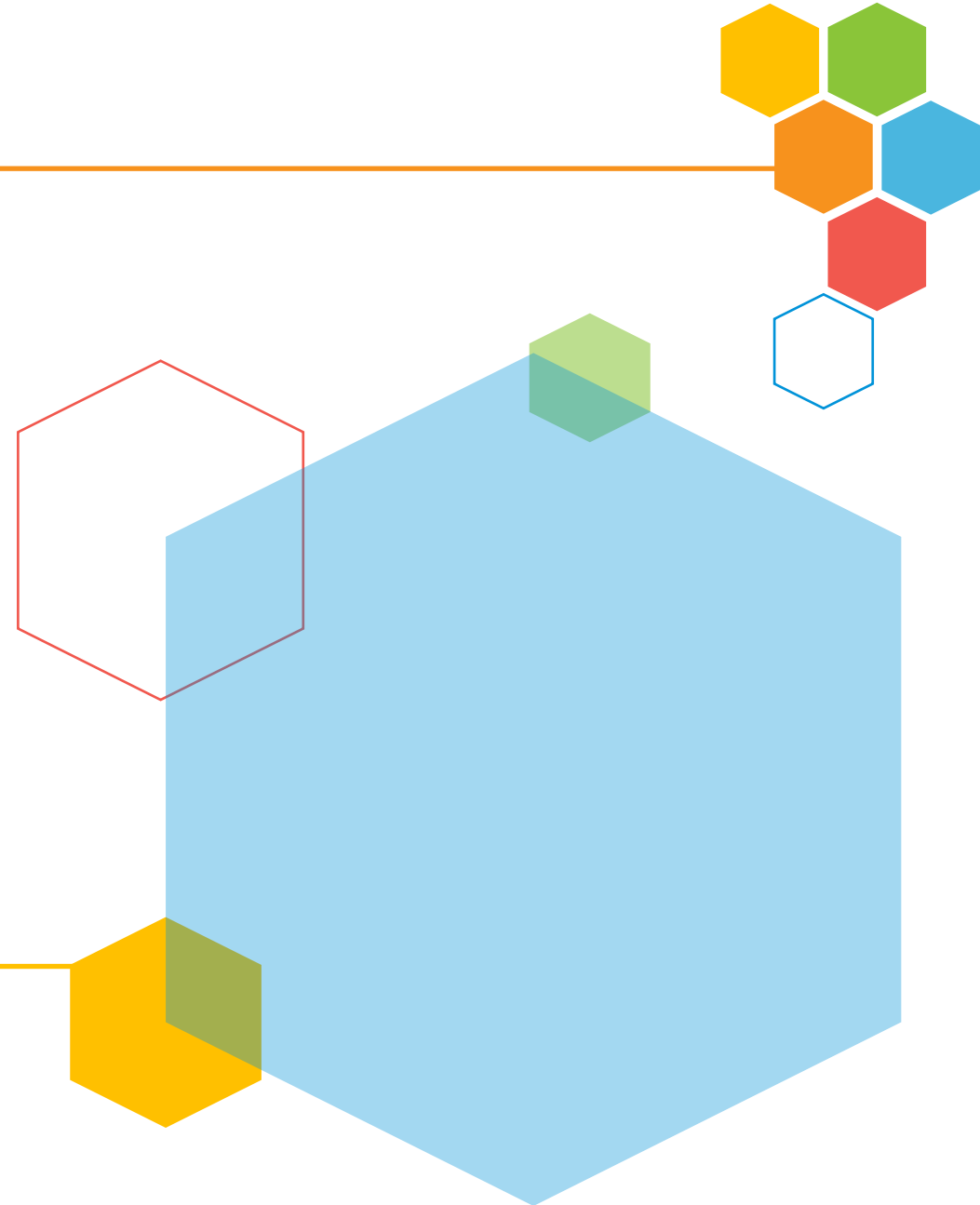


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# Navigating the nexus between disaster related statistics and civil registration and vital statistics systems for risk-informed development

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Philippine Country Presentation



# Overview of country setup

Main agencies involved in Civil Registration

- PHILIPPINE STATISTICS AUTHORITY
- LOCAL CIVIL REGISTRY OFFICES

National Statistics Organization

- PHILIPPINE STATISTICS AUTHORITY

National Disaster Management Agency

- OFFICE OF THE CIVIL DEFENSE



# Production of granular population statistics

1. How can data generated from a civil registration system, including derived vital statistics, be used to produce population statistics including key disaggregation (e.g., age and sex) at the lowest administrative areas to support statistics on population exposure to hazards? If a different data source is used, please describe the data availability, timeliness etc.



# Production of granular population statistics

## Preparation of Census-Based Population Projection (CBPP)

- Crucial to respond to the demands for the latest population estimates and projections between census years
- To enable the identification and generation of the most critical and essential statistics required for social, economic, and environmental planning/analysis
- Currently, the 2020 CBPP is being prepared up to city/municipality levels with age and sex disaggregation up to the provincial level only



# Production of granular population statistics

## Preparation of Census-Based Population Projection (CBPP)

A collaborative effort of the Inter-Agency Working Group on Population Projections composed of the following:

- University of the Philippines Population Institute (UPPI)
- Commission on Population (PopCom)
- Department of Health (DOH)
- Department of Education (DepEd)
- Philippine Statistical Research and Training Institute (PSRTI)
- National Economic and Development Authority (NEDA)
- Philippine Statistics Authority



# Production of granular population statistics

## Use of Civil Registration and Vital Statics (CRVS) Data

To better estimate the population, the CBPP utilizes various sources of data and one of which is the data from the CRVS.

- **Registered births** as one of the sources to derive the total fertility rates (TFRs) and the age-specific fertility rates (ASFRs)
- **Registered deaths** are being used in the assessment of age-specific death rates (ASDR) by sex for the mortality inputs of the projections, as well as for the estimation of life expectancies at birth for males and females



# Production of granular population statistics

## Challenges

- As a universal challenge, under-registration is also being experienced by the Philippines especially for the marginalized, Muslims and indigenous peoples which may be attributed to geography and cultural traditions
- For 2022, completeness level from the submitted CRVS Decade review questionnaire is 89.0% using an interim methodology, the empirical completeness model



# Production of granular population statistics

## Best Practices

- Implementation of Birth Registration Assistance Project (BRAP) to increase birth registration of the marginalized populations
- Conduct of mobile registration to improve vital event registration particularly for the marginalized communities, rural and hard-to-reach areas
- Conduct of National Convention on Civil Registration and Vital Statistics (NCCRVS) to promote awareness on CRVS and provide updates on policies and programs





# Production of granular population statistics

## Best Practices

- Capacity building of medical personnel and statistical staff including mortality coders
- Timely release of statistics and monthly updates on vital events including causes of death
- Statistical tables are available at the municipality level, providing data three tiers below the national level (national, regional, provincial, city/municipality)



# Deaths and mortality statistics

2. How can death registration and vital statistics produced by a civil registration system (ie. data on causes of death) support the production of official statistics on number of deaths attributed to disasters (Sendai Framework indicator A-2) that is linked to disaster events causing the mortality? What are the current challenges in doing this in your country?



# Deaths and mortality statistics

- The Philippine Statistics Authority (PSA) serves as the primary agency for compiling, processing and disseminating the mortality statistics in the country
- It is being generated based on deaths registered at the Local Civil Registry Offices using the standard Certificate of Death Form



# Deaths and mortality statistics

- The attending physician determines the cause of death, and indicates it in the Medical Certificate portion of the Certificate of Death
- The local health officer determines the cause of death in case of mass deaths due to natural calamities, accidents, epidemic, etc., or deaths that occurred outside the health facility but not related to medico-legal cases



# Deaths and mortality statistics

- Every cause-of-death statement is coded according to the International Classification of Diseases version 10 (ICD-10) mortality rules and guidelines
- The statistical tables on causes of death are being presented according to the Mortality Tabulation List 1 of the ICD-10
- Deaths due to exposure to forces of nature and all other identified disasters, including COVID-19, can be generated from the microdata files.



# Deaths and mortality statistics

## Challenges

- The timeline for the release of mortality statistics to aid in risk management can be complex and involves several steps
- The death statistics should be compiled for the whole year and has to undergo a number of processing and evaluation before coming up with the official release.
- Misclassification of cause of death due to disasters occurs when the type of disaster is not clearly documented in the medical certification
- Underreporting of deaths due to disasters



# Statistics on population movement

3. What are the conceptual and measurement basis for statistics on (i) evacuated, (ii) relocated, (iii) internally displaced and (iv) internationally displaced population due to disasters?
  - The Philippines utilizes the Department of Social Welfare and Development's (DSWD) Report template in collecting displaced population
  - This is done through the Camp Coordination and Camp Management who collects the data directly from the evacuation centers
  - This provides detailed information on the number of displaced families/persons inside the evacuation centers and those families/persons temporarily staying with their relatives or friends for shelter



# Statistics on population movement

## Status of Displaced Population

### a. Inside Evacuation Center

There are **147 families** or **582 persons** currently taking temporary shelter in **four (4) evacuation centers** in **Regions VII** and **MIMAROPA** (see Table 2).

Table 2. Number of Displaced Families / Persons Inside Evacuation Center

REGION / PROVINCE / MUNICIPALITY	NUMBER OF EVACUATION CENTERS (ECs)		NUMBER OF DISPLACED INSIDE ECs			
			Families		Persons	
	CUM	NOW	CUM	NOW	CUM	NOW
<b>GRAND TOTAL</b>	<b>11,794</b>	<b>4</b>	<b>524,608</b>	<b>147</b>	<b>2,030,451</b>	<b>582</b>
<b>MIMAROPA</b>	<b>623</b>	<b>1</b>	<b>54,563</b>	<b>33</b>	<b>235,127</b>	<b>139</b>
<b>Oriental Mindoro</b>	<b>8</b>	<b>-</b>	<b>262</b>	<b>-</b>	<b>1,287</b>	<b>-</b>
<i>Naujan</i>	4	-	214	-	1,069	-
<i>Puerto Galera</i>	3	-	27	-	113	-
<i>Victoria</i>	1	-	21	-	105	-
<b>Palawan</b>	<b>591</b>	<b>1</b>	<b>54,104</b>	<b>33</b>	<b>233,052</b>	<b>139</b>
<i>Aborian</i>	8	-	1,435	-	7,049	-
<i>Agutaya</i>	7	-	237	-	987	-
<i>Araceli</i>	56	-	1,446	-	3,556	-
<i>Brooke's Point</i>	11	-	241	-	1,101	-

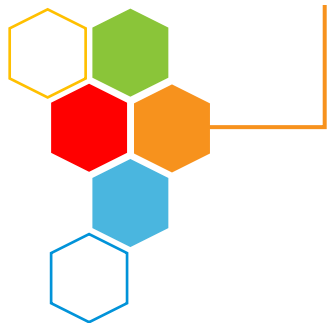
### b. Outside Evacuation Center

A total of **467,194 families** or **1,881,875 persons** temporarily stayed with their relatives or friends in **Regions MIMAROPA, VI, VII, VIII, X,** and **Caraga** (see Table 3).

Table 3. Number of Displaced Families / Persons Outside Evacuation Center

REGION / PROVINCE / MUNICIPALITY	NUMBER OF DISPLACED OUTSIDE ECs			
	Families		Persons	
	CUM	NOW	CUM	NOW
<b>GRAND TOTAL</b>	<b>467,194</b>	<b>-</b>	<b>1,881,875</b>	<b>-</b>
<b>MIMAROPA</b>	<b>9,443</b>	<b>-</b>	<b>34,654</b>	<b>-</b>
<b>Palawan</b>	<b>9,422</b>	<b>-</b>	<b>34,530</b>	<b>-</b>
<i>Aborian</i>	2	-	7	-
<i>Araceli</i>	997	-	4,718	-
<i>Cuyo</i>	410	-	1,345	-
<i>Dumaran</i>	1,438	-	5,418	-
<i>Linapacan</i>	291	-	655	-
<i>Magsaysay</i>	272	-	979	-
<i>Narra</i>	1,406	-	4,168	-
<i>Puerto Princesa City (Capital)</i>	3,939	-	14,678	-

Example of DSWD Report on displaced population



- Currently, internationally displaced population is not being monitored by the NDRRM Operations Center unless necessary



# Statistics on population movement

## GeoAnalyticsPH

- One of the references that is being utilized during planning and Pre-Disaster Risk Assessment (PDRA)
- A web application that can help generate maps and analytics using hazards, exposure, and location data from the GeoRiskPH database
- Provides visualize assessments in the form of maps, charts, and graphs to better understand the scope and prepare for natural hazards, such as tsunami, earthquake, landslide, and flood, in a specific area



# Statistics on population movement

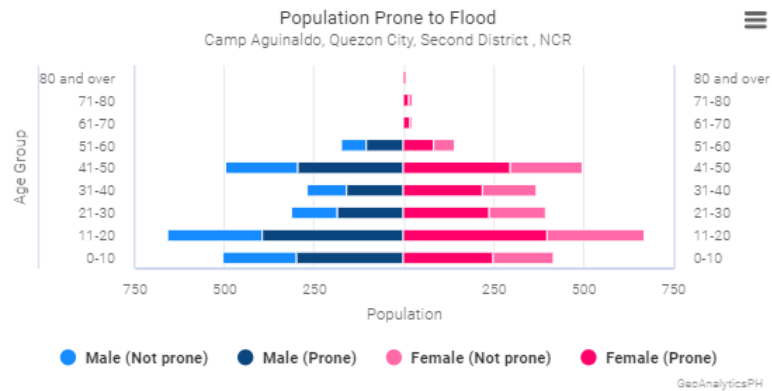
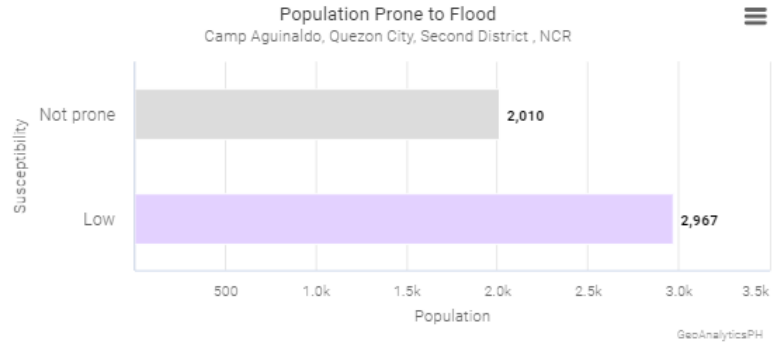
## GeoAnalyticsPH

- The population being used is from the CBPP of the PSA, which also uses the data from the CRVS particularly the information on the number of registered births and deaths for the assessment of fertility and mortality indicators for estimating the population



# Statistics on population movement

GRAPH TABLE



Total Population Prone to Flood: 2,967 out of 4,977 (59.61%)

Note: Political boundaries (PSA, 2016) depicted on the map are not authoritative, and are only an approximate; Census data is based on PSA data of 2015 and does not reflect real-time information; Population density was computed by evenly distributing population throughout the land area of the selected location.; Flood data (DENR-MGB, 2018) is continually being improved and updated.

Data and Methods Used - Formulas, data sources, and how to cite results

Official Hazard Maps - More information regarding hazard data

- GeoAnalyticsPH can be accessed through this link

<https://geoanalytics.georisk.gov.ph/>



# Statistics on population movement

## Philippine Identification System

- A single national identification system for all citizens and resident aliens of the Republic of the Philippines
- This valid proof of identity shall be a means of simplifying public and private transactions, and shall be a social and economic platform
- When completely implemented, this can also be a good source of population data, that can be used in measuring the displaced population due to disasters. However, limitations should be noted since movement of individuals is not being recorded.



# Statistics on population movement

## CRVS Digitalization

- PSA's initiative to enhance the security and efficiency of processing civil registration of births, deaths, and other vital events
- To facilitate the timely production and dissemination of vital statistics
- This move towards a more integrated and real-time system can significantly improve public health planning and policy-making



