

4TW

Engineering



CALISTA



ANGEL



JESS



LYSSAH

4TW Analytics





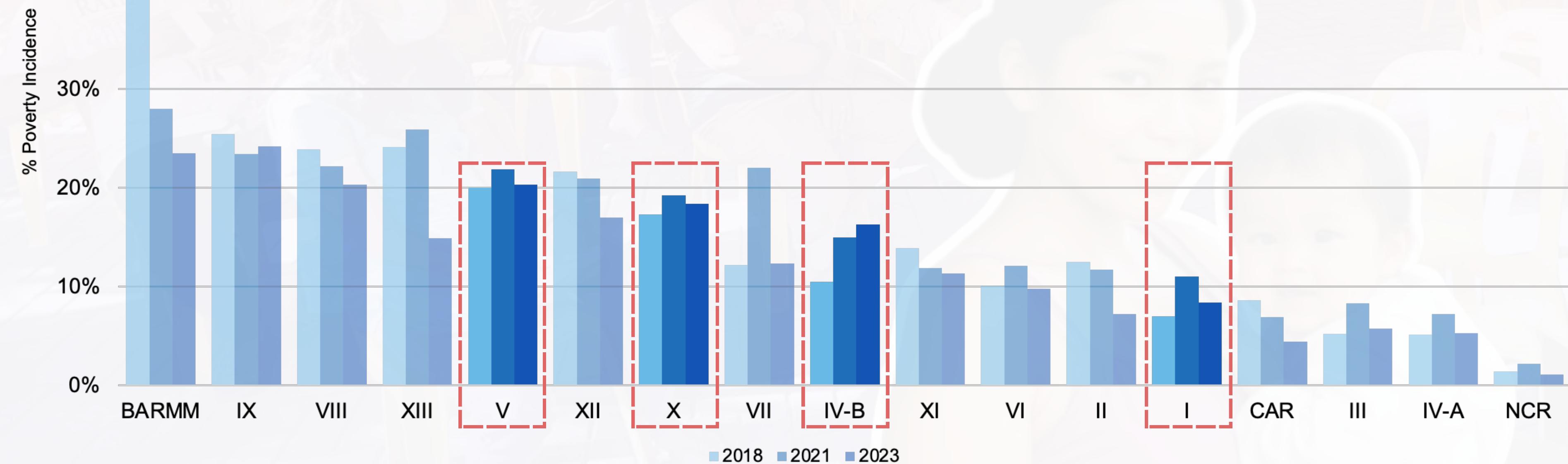
UNEVEN PROGRESS: IDENTIFYING LAGGING REGIONS IN 4PS AND CRAFTING TARGETED SOLUTIONS

4Ps PANTAWID PAMILYANG PILIPINO PROGRAM

- Break the cycle of **intergenerational poverty**
- **Conditional cash grants** to households for health and education
- Targets the **poorest households** identified through *Listahanan*

Still, 4Ps is not enough...

Local factors may prevent the program from fully achieving its goals in some regions.



WHAT DOES 4PS AIM TO ACHIEVE?

1



Health and Nutrition

2



Education



Child Labor

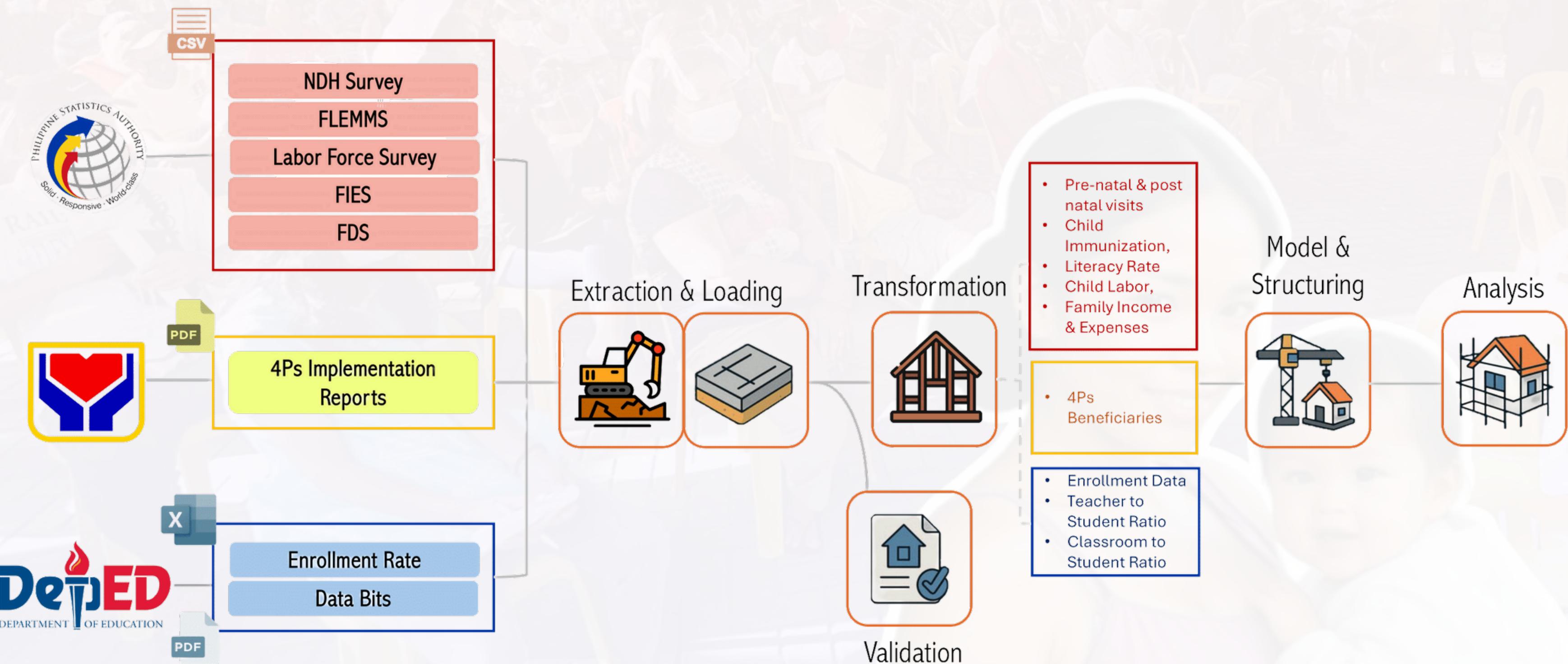
3



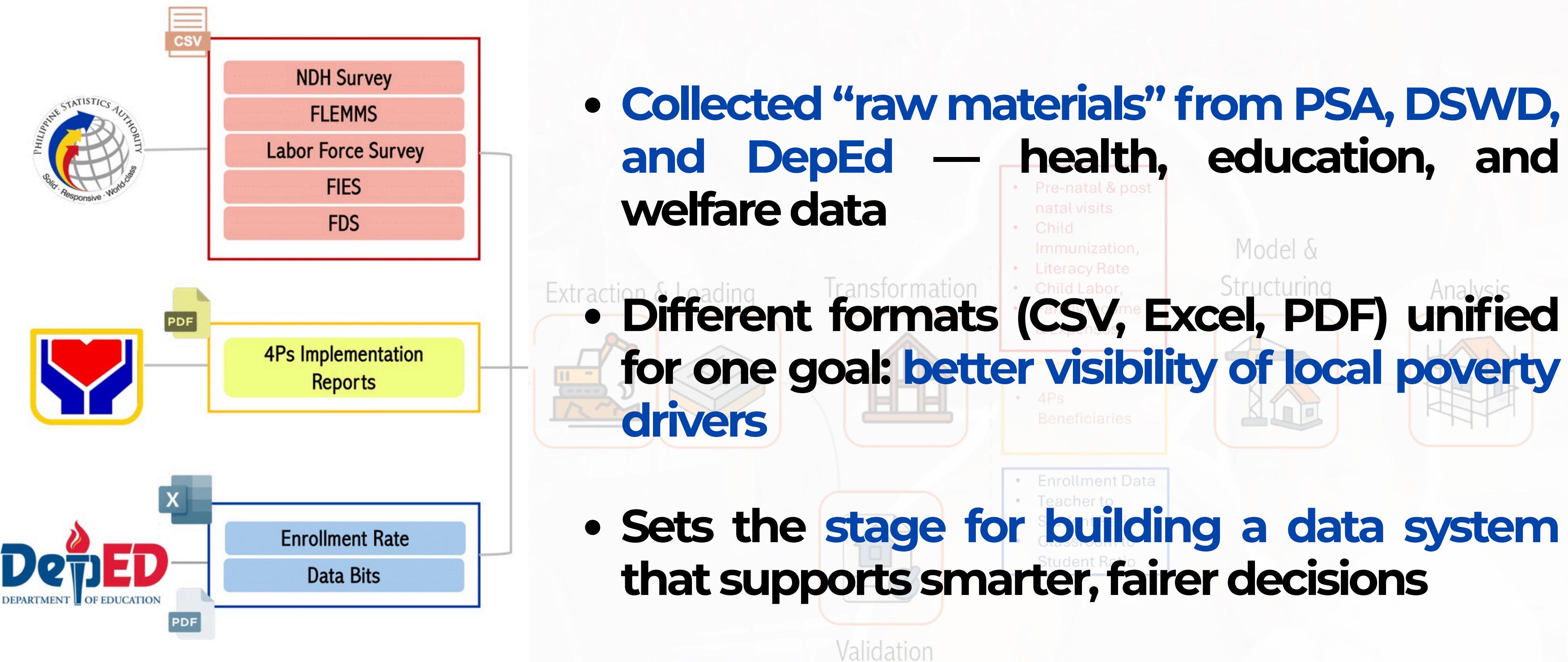
Community Participation

4

THE DATA BLUEPRINT



GATHERING THE MATERIALS



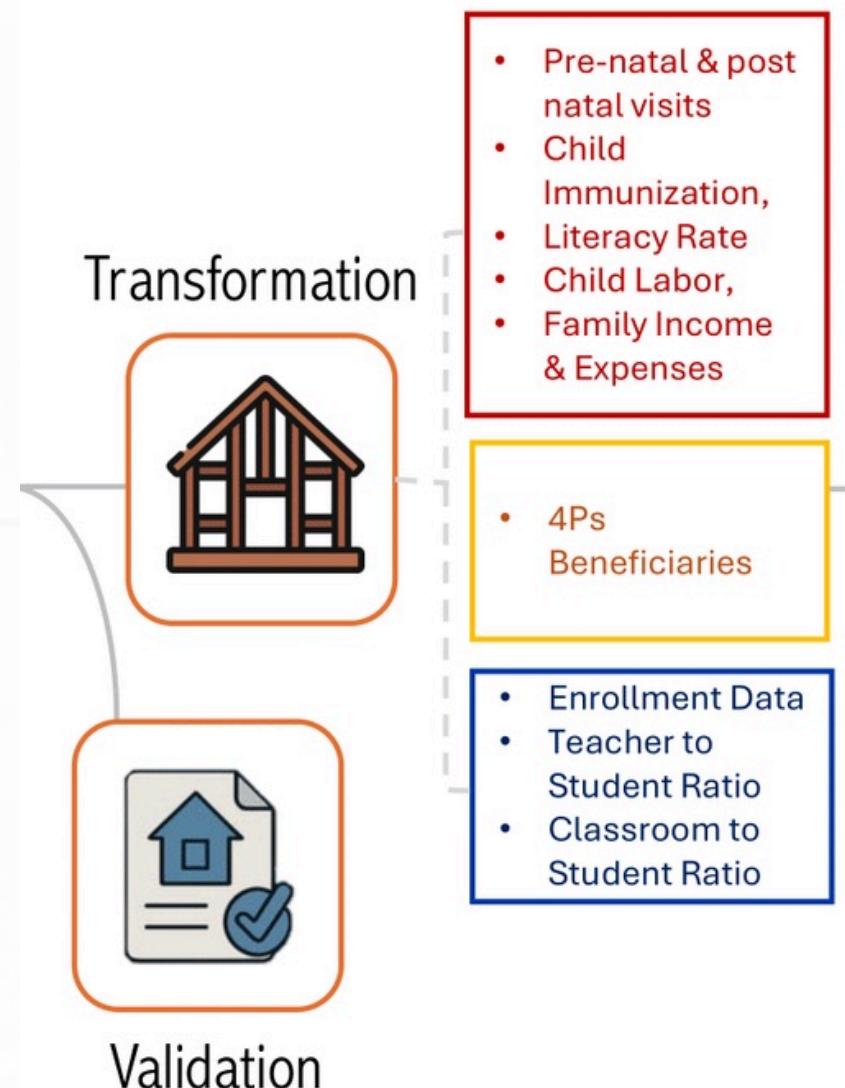
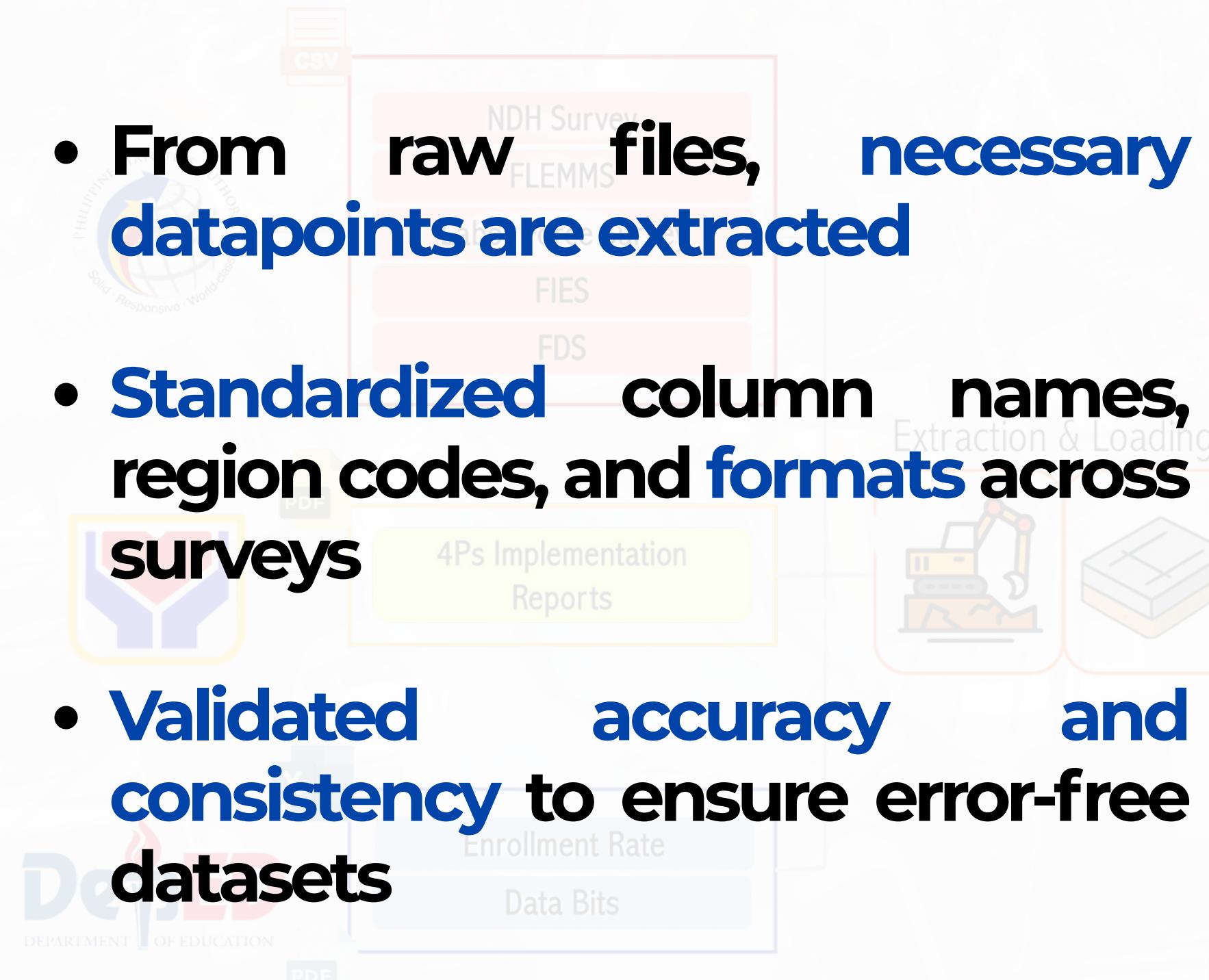
LAYING THE FOUNDATION

- Automated collection from multiple agencies to reduce manual work
- Loaded raw files into one structured base for processing



SHAPING & STRENGTHENING

- From raw files, necessary datapoints are extracted
- Standardized column names, region codes, and formats across surveys
- Validated accuracy and consistency to ensure error-free datasets



Result:
Model &
Structuring
Analysis
Reliable and
transparent
data ready for
meaningful
analysis

FINISHING THE BUILD

- Transformed data into structured, ready-to-use tables
- Connected datasets by region and year across health, education, labor, etc.
- Made data actionable, accessible, and ready to guide decisions





**Health and
Nutrition**



Education

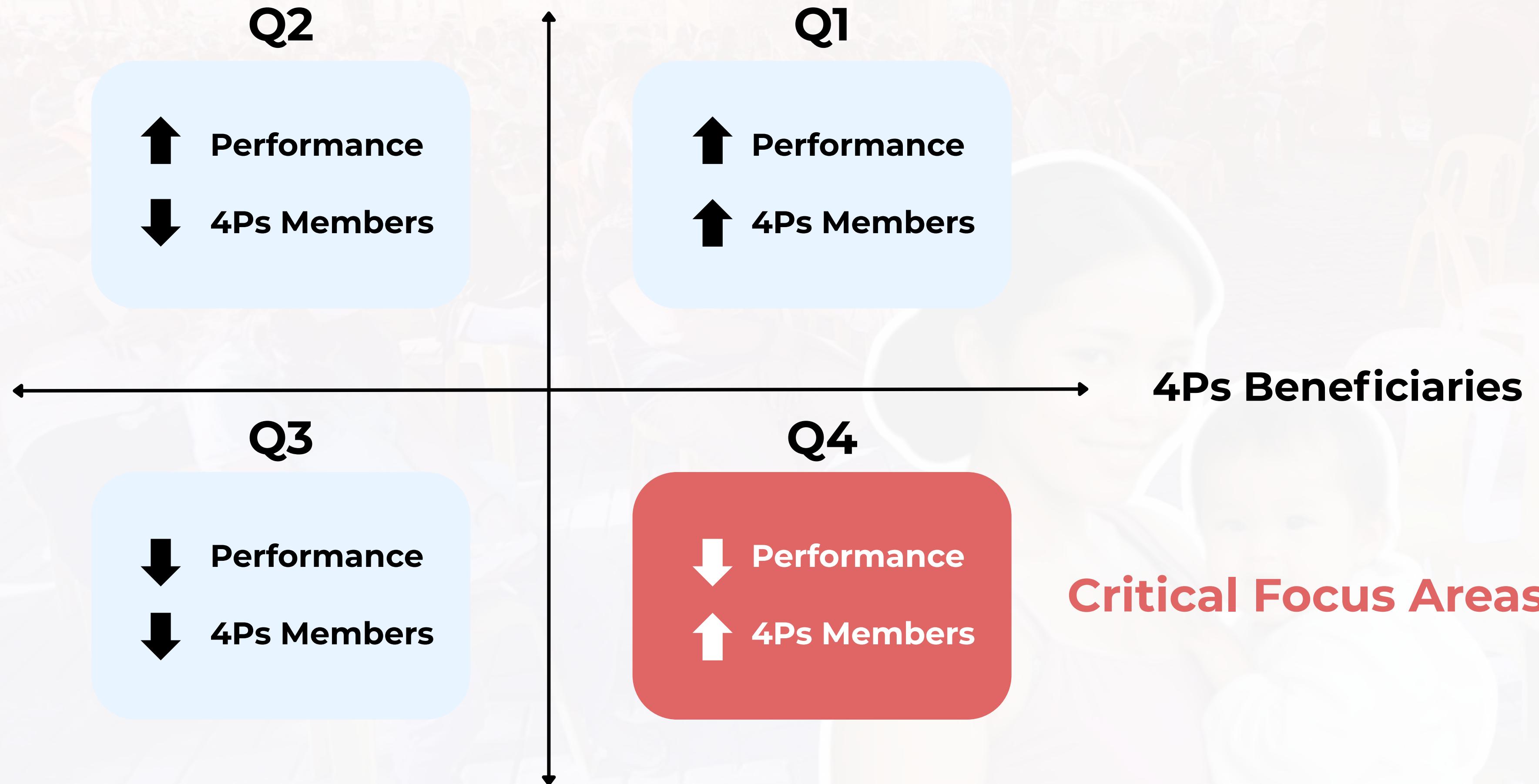


Child Labor



**Community
Participation**

Performance Metric





**Health and
Nutrition**



Education

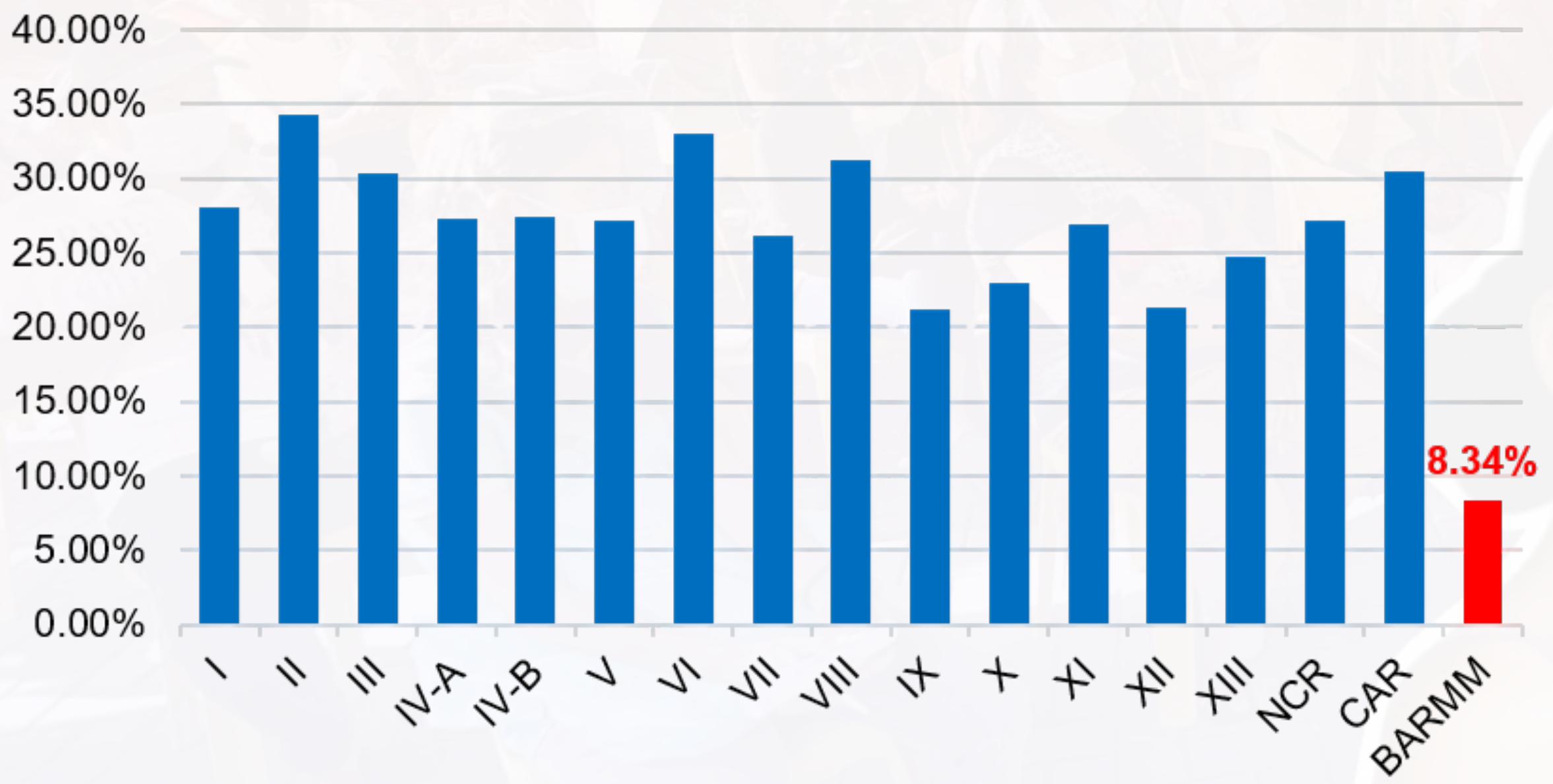


Child Labor



**Community
Participation**

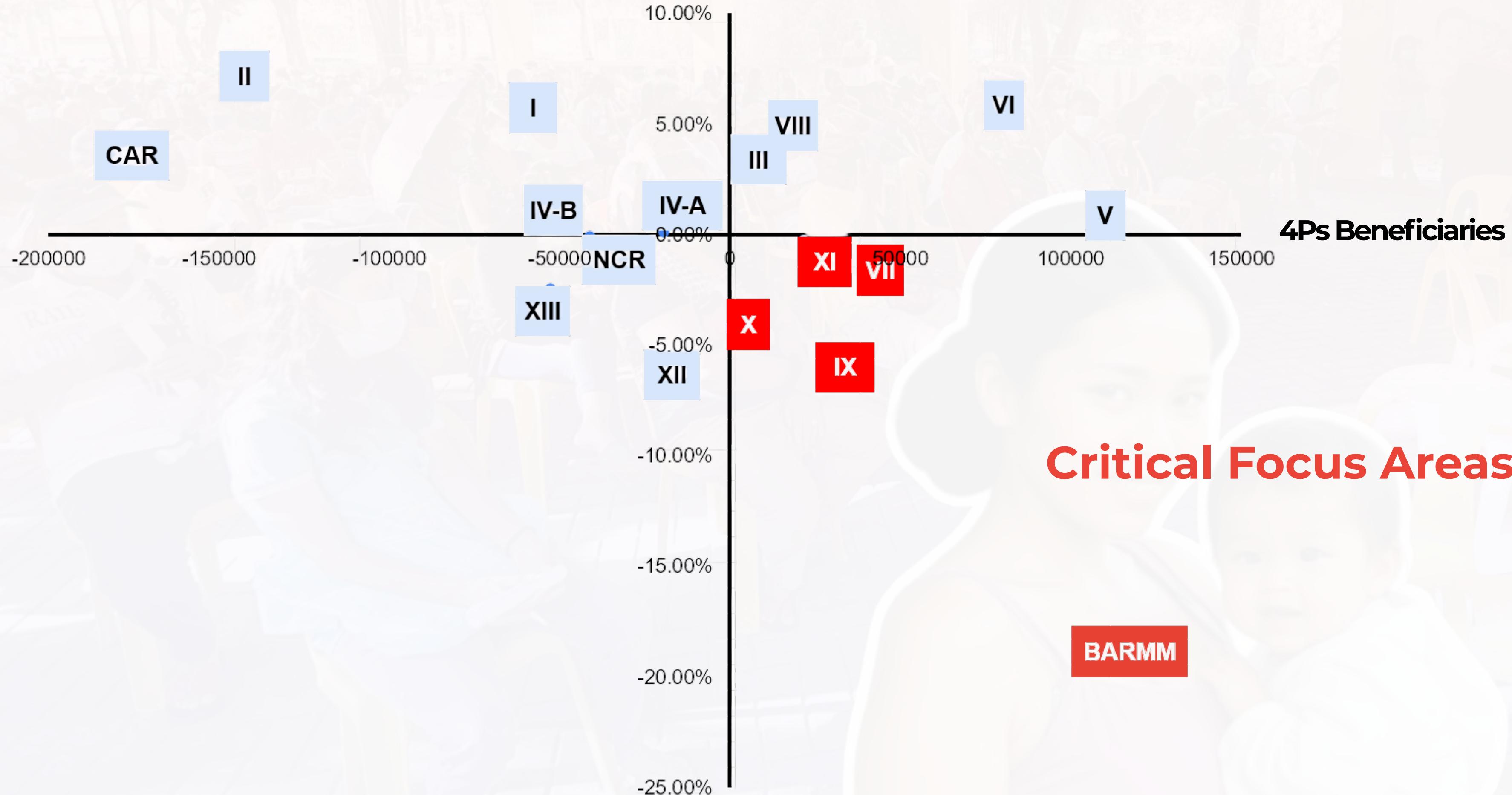
Immunization Rate 2022



According to WHO-UNICEF national routine vaccine coverage in 2022 was about **66%**.

Immunization rate of 4Ps children remains **below 35%**.

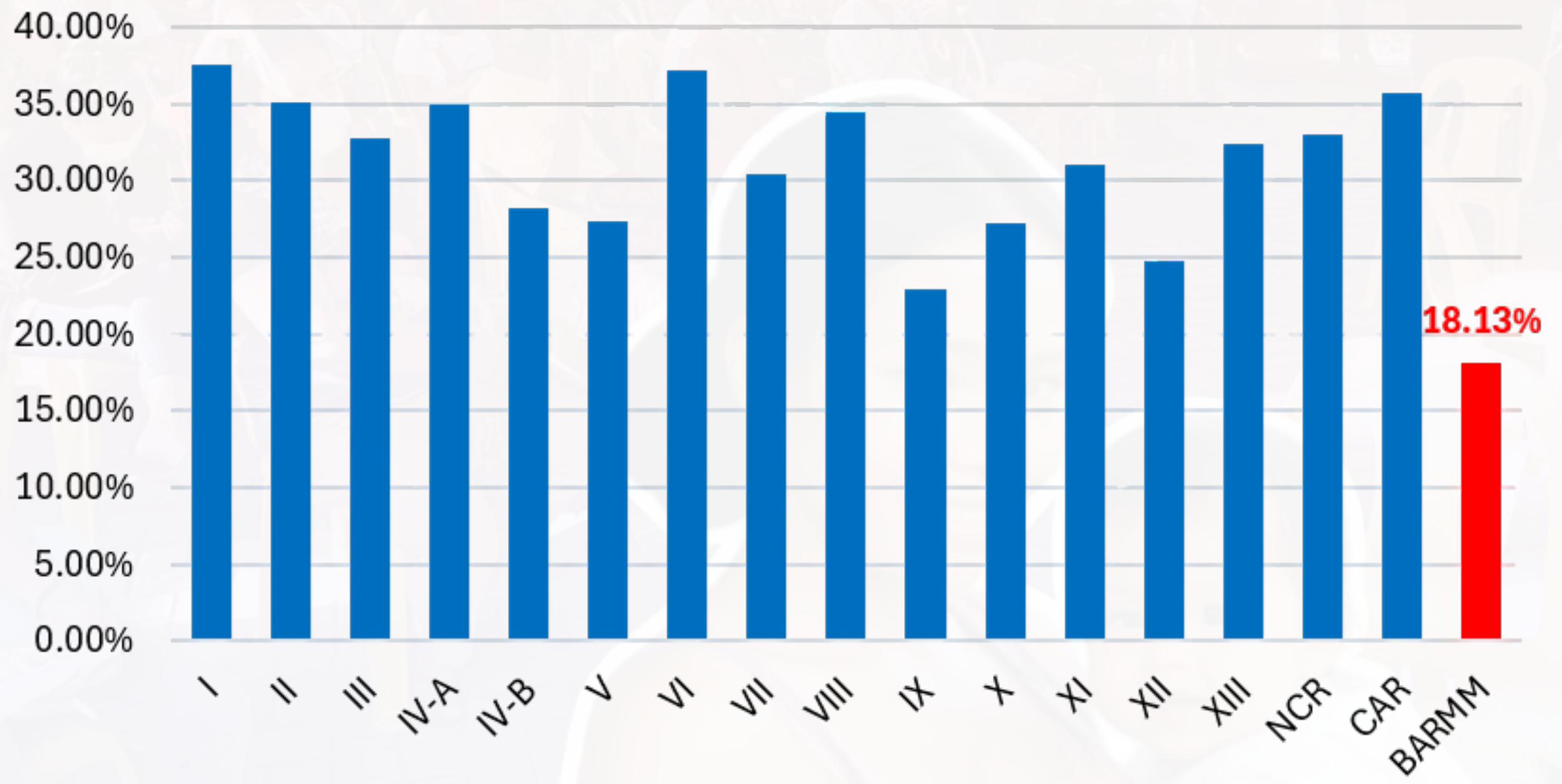
Immunization Rate 2022



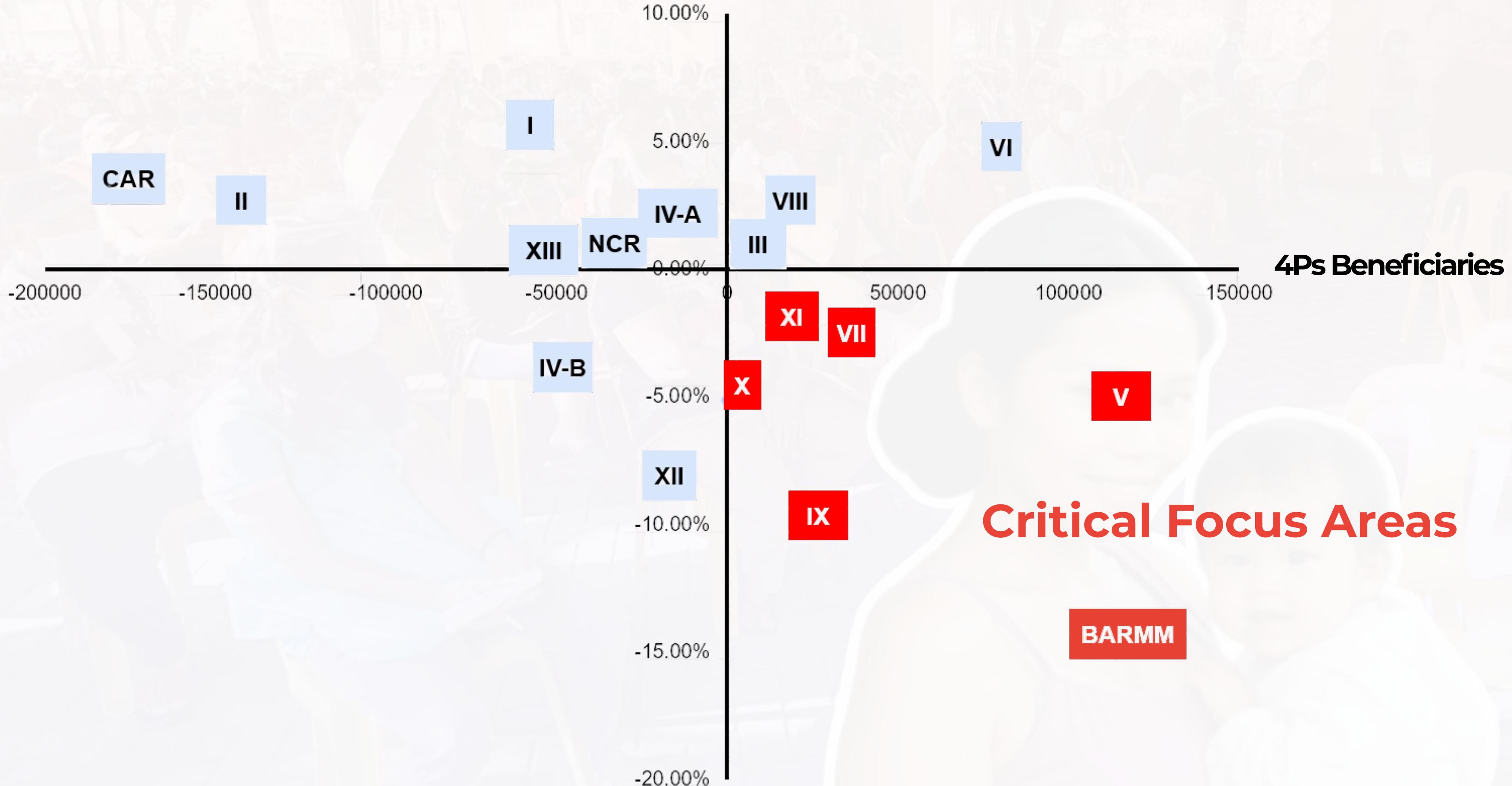
NDHS 2022 reports that
83% of Filipino women
received at least four
ANC visits.

32.42% of pregnant
4Ps members
attended prenatal
visits.

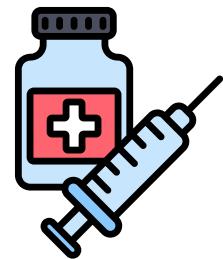
Prenatal Visit Rate 2022



Prenatal Visit Rate 2022



Median value used to determine whether the rate is relatively high or low. Plotted as X [x - median (x)], Y [y - median (y)]



**Health and
Nutrition**



Education



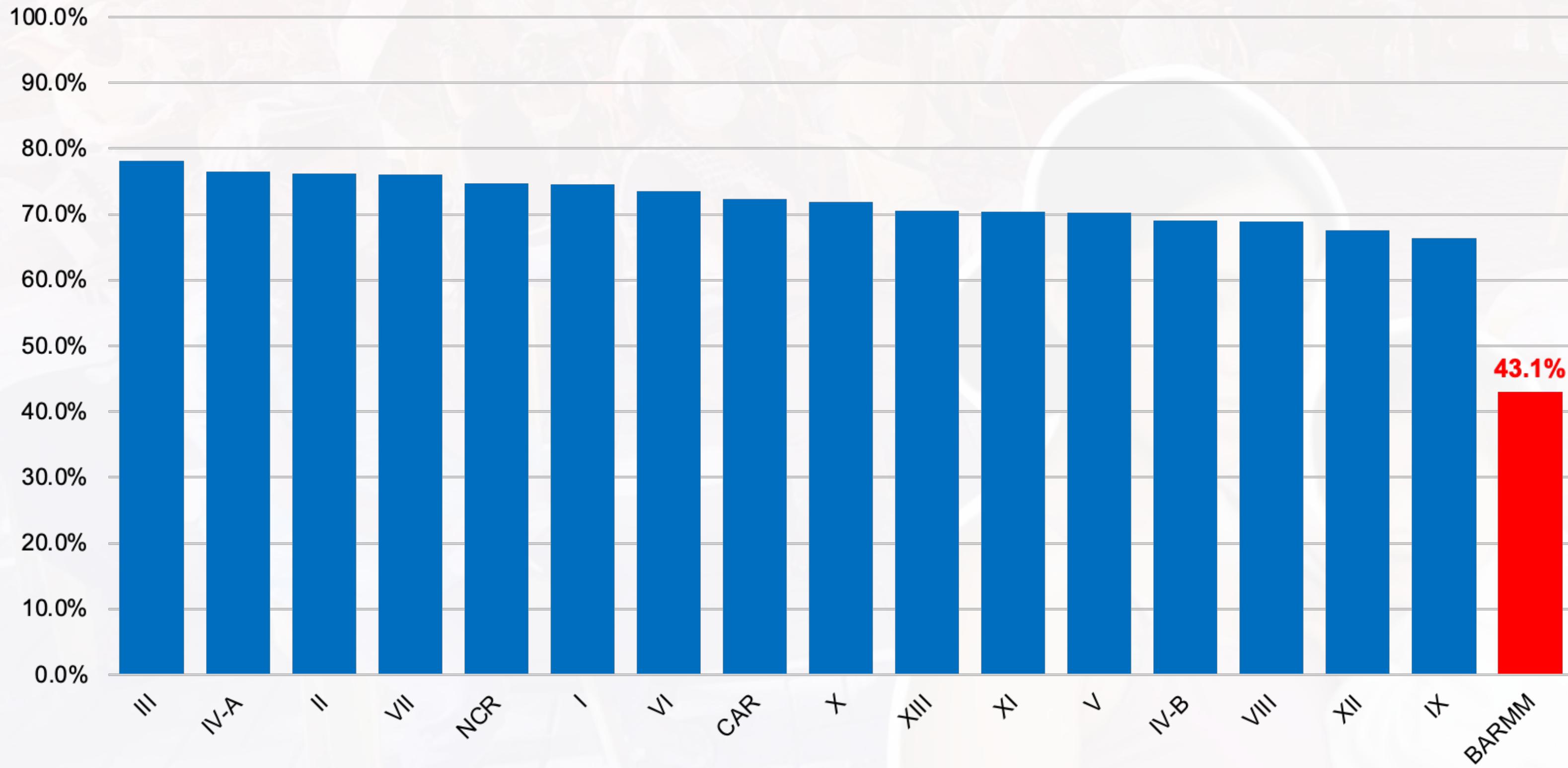
Child Labor



**Community
Participation**

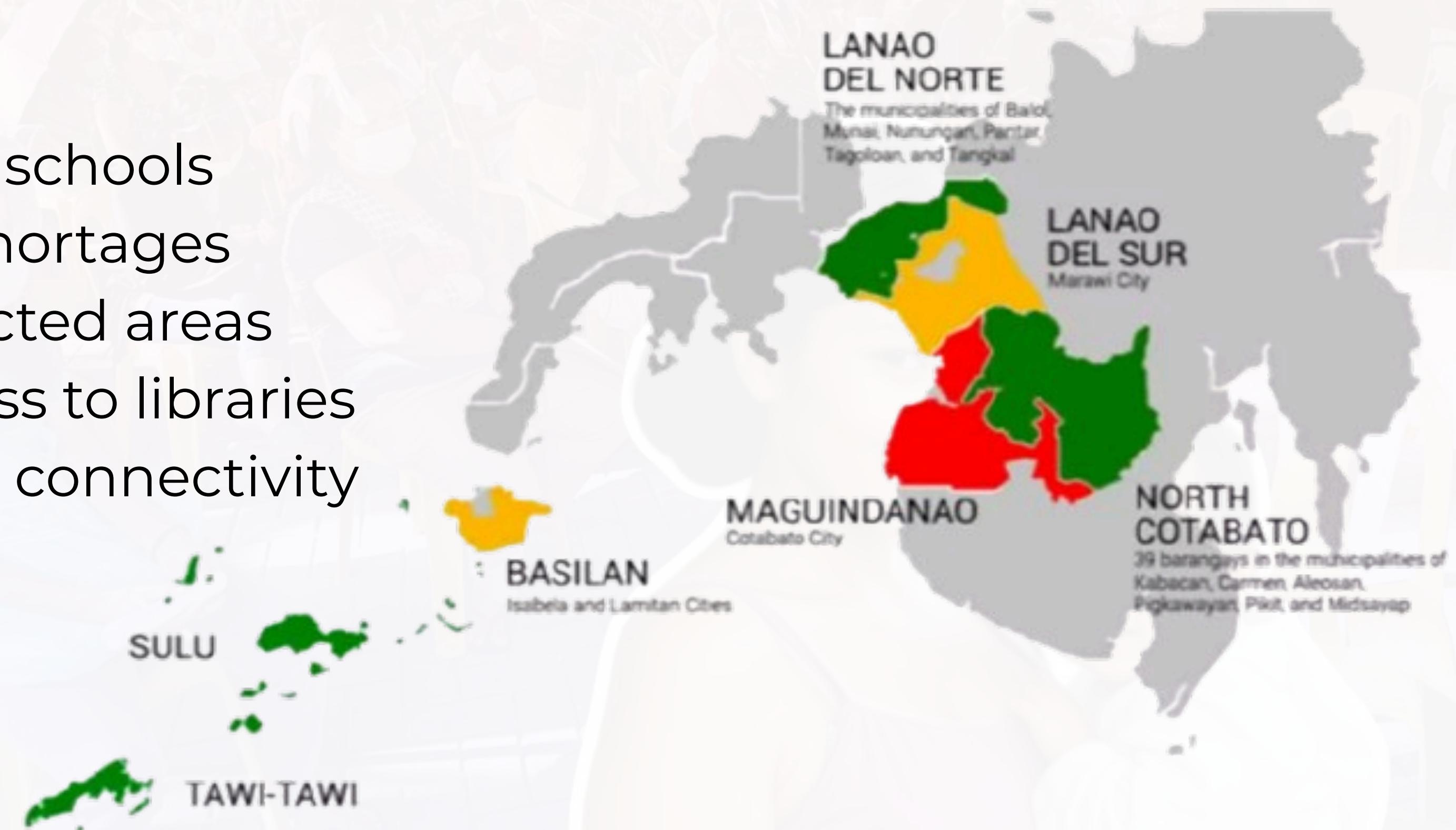
BARMM's enrollment rate falls behind all other regions

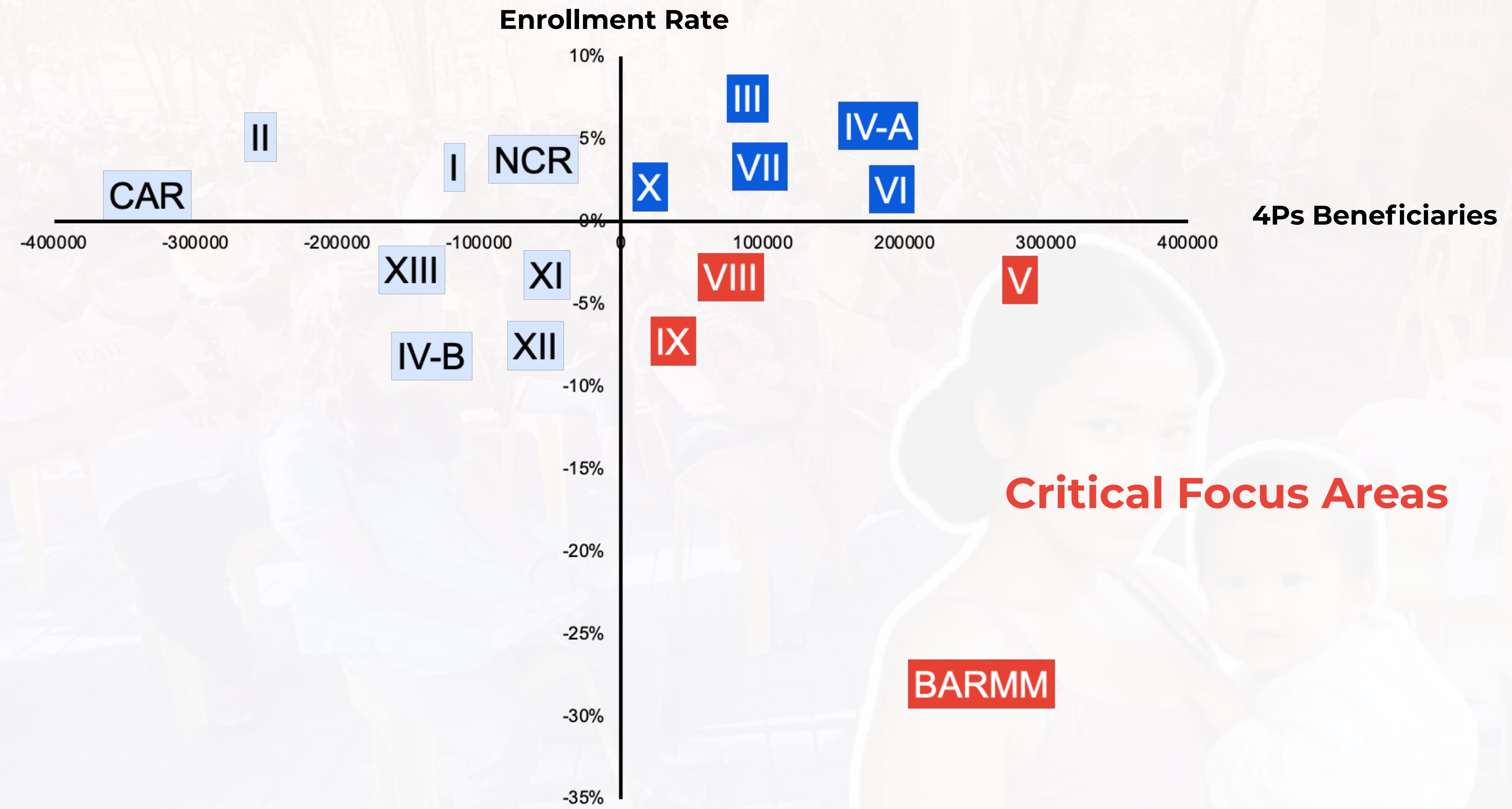
K-12 Enrollment Rate SY 2019-2020



BARMM continues to face low school participation due to:

- inaccessible schools
- classroom shortages
- conflict-affected areas
- limited access to libraries and internet connectivity





Median value used to determine whether the rate is relatively high or low. Plotted as X [x - median (x)], Y [y - median (y)]



Health and Nutrition



Education

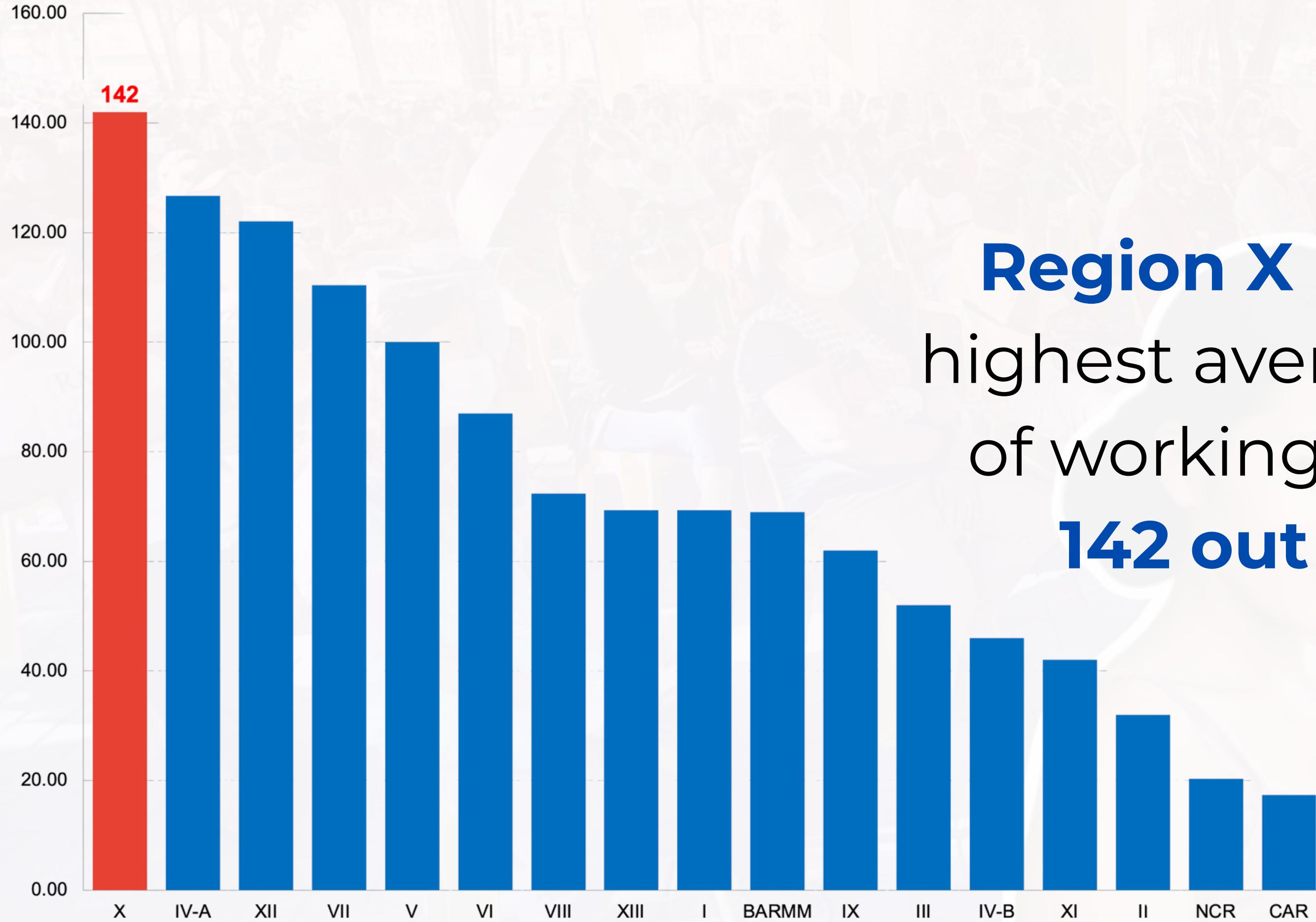


Child Labor



Community Participation

Average Working Per Region



Region X records the highest average number of working children at **142 out of 1,504.**

Agriculture

Wholesale/Retail

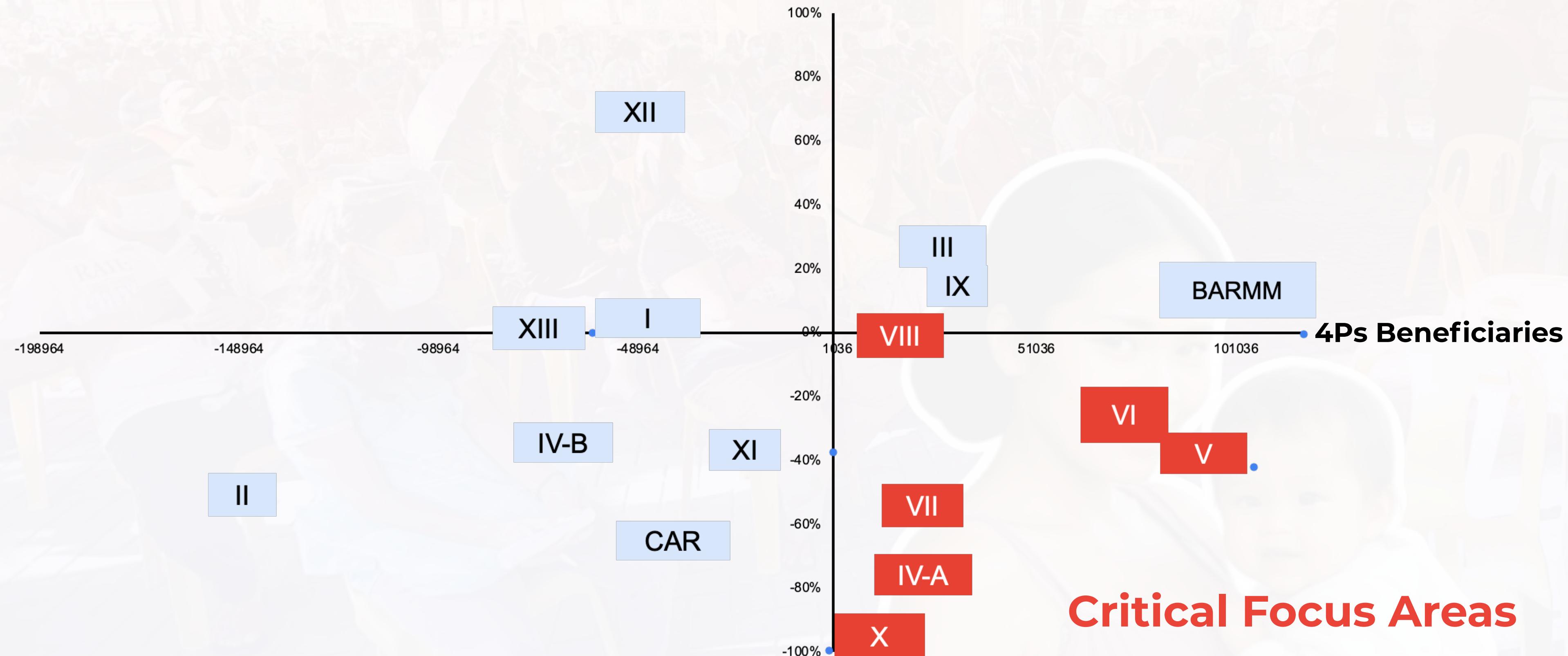
Fishing &
Aquaculture

Construction

Other Services

Children aged 5–17 are already working in **Region X**, mostly in **Agriculture**. This reflects national data showing farming as the top job done by children **across all regions**.

Working Children



Median value used to determine whether the rate is relatively high or low. Plotted as X [x - median (x)], Y [y - median (y)]



**Health and
Nutrition**



Education

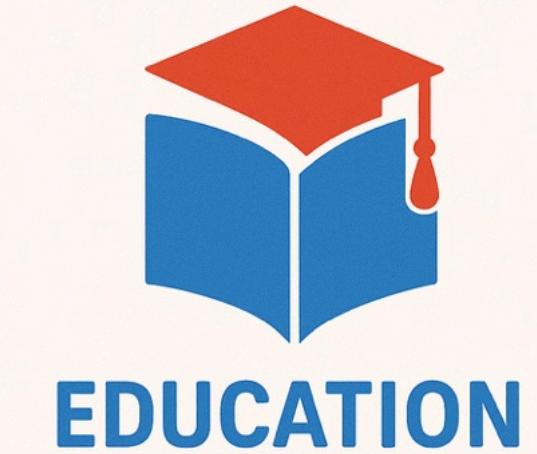
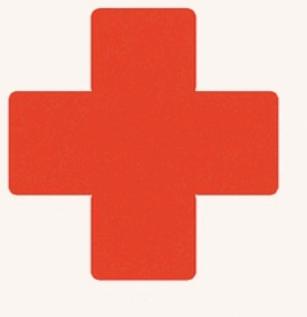


Child Labor

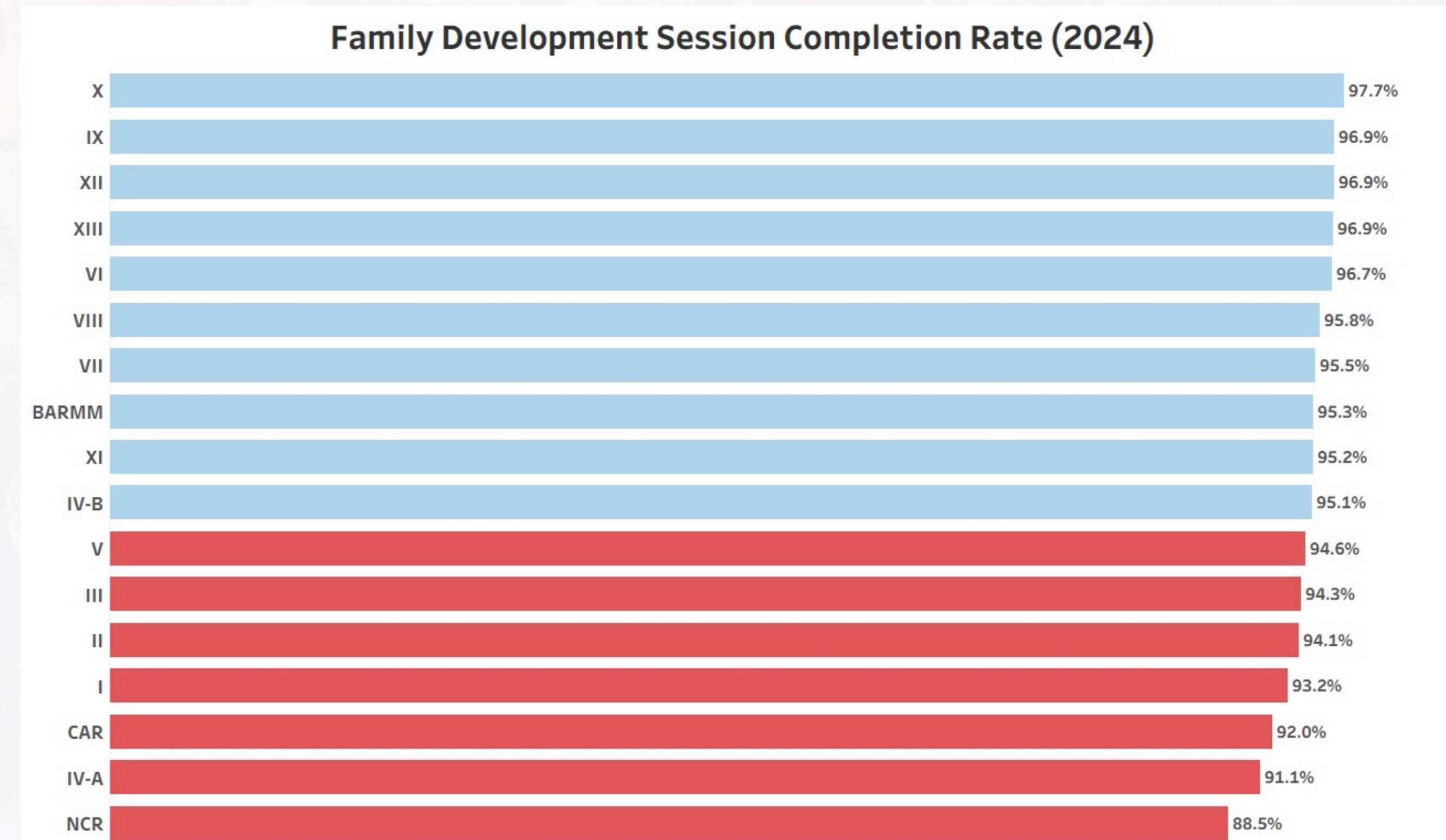


**Community
Participation**

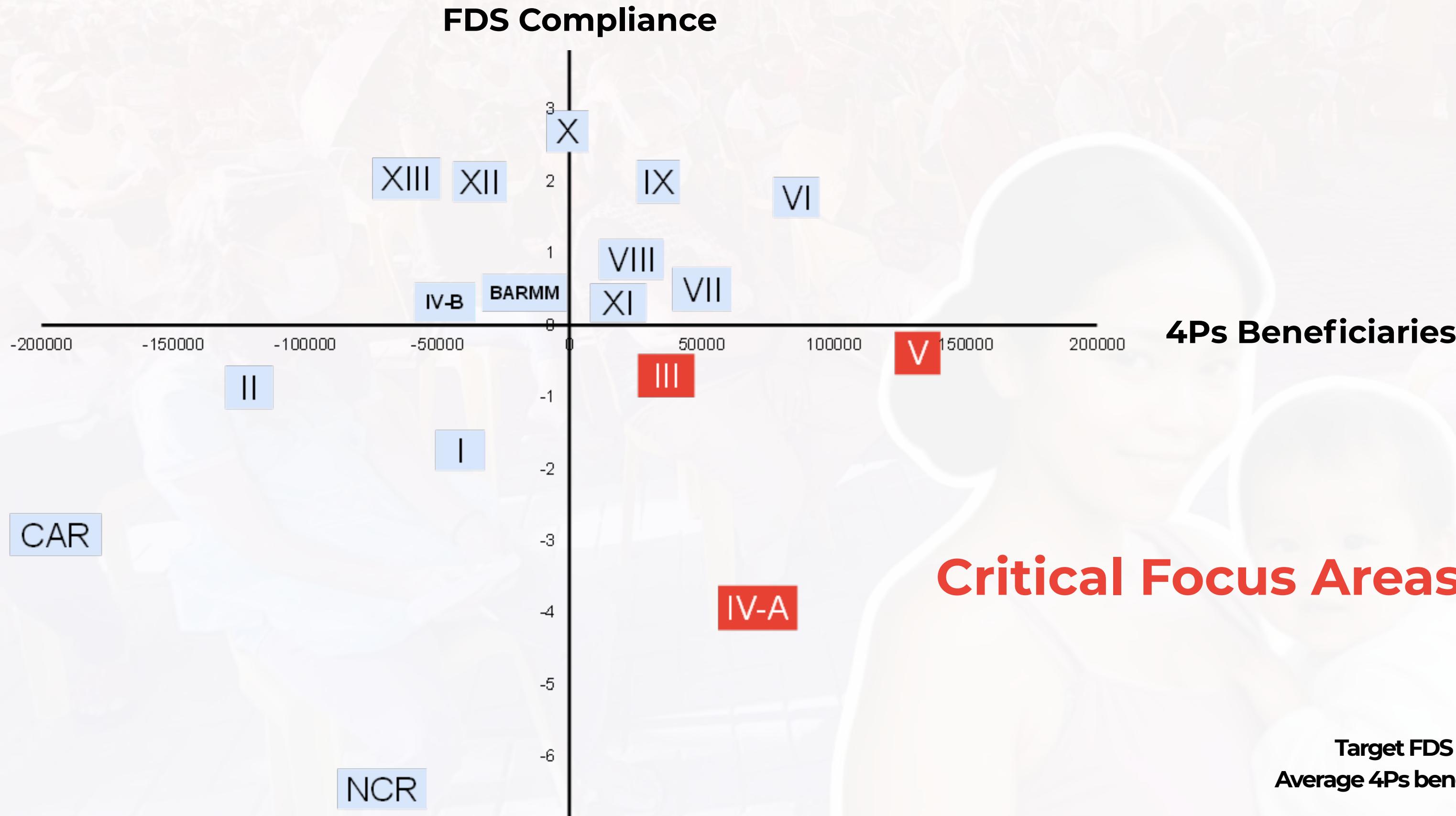
FAMILY DEVELOPMENT SESSION



National FDS Compliance Near 95% Target —but **7 Regions Lag Behind**



Regions III, IV-A, and V below 95% FDS Compliance Despite Large 4Ps Coverage

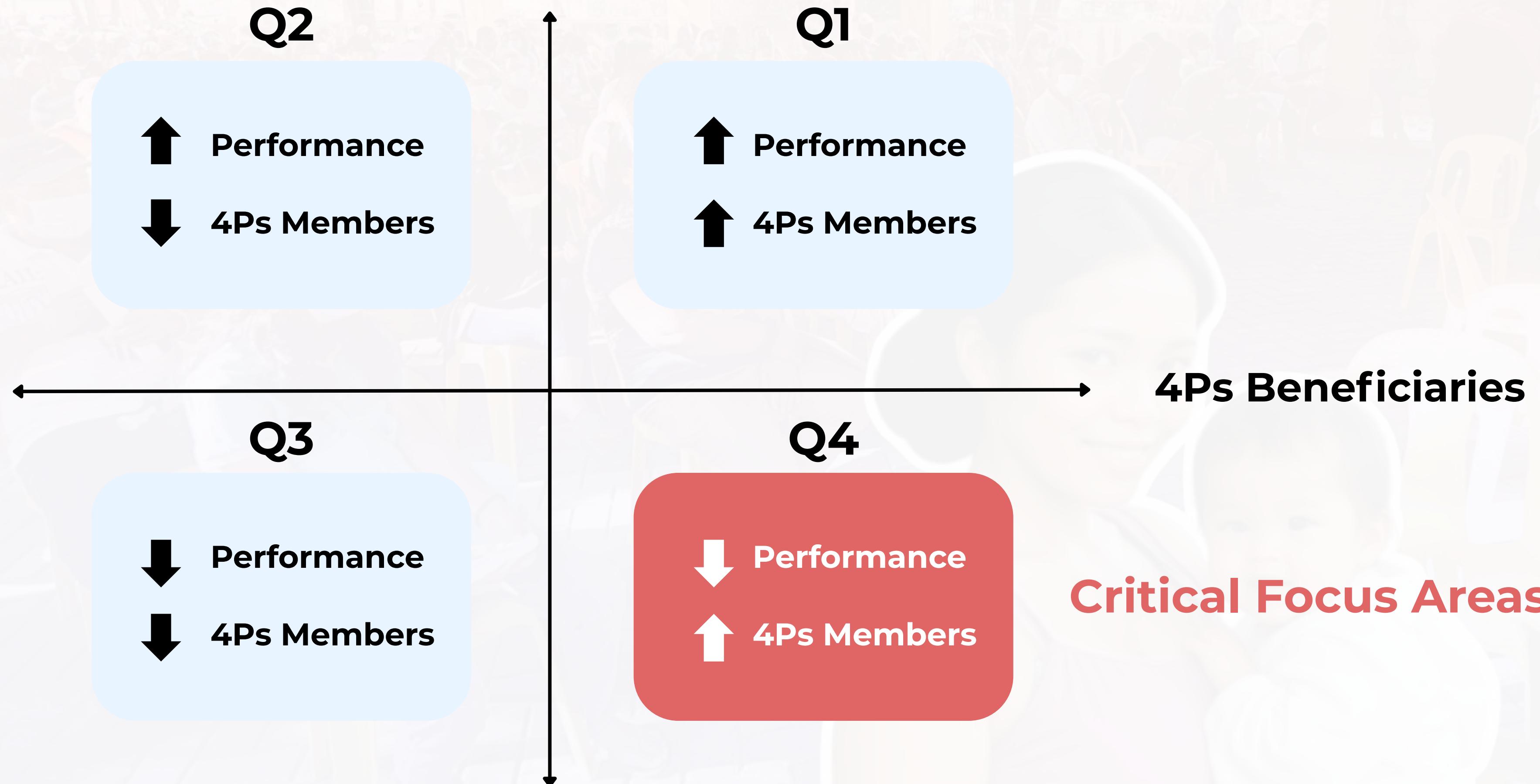


Identifying Our Focus

Multiple Metrics to a
Single Strategy



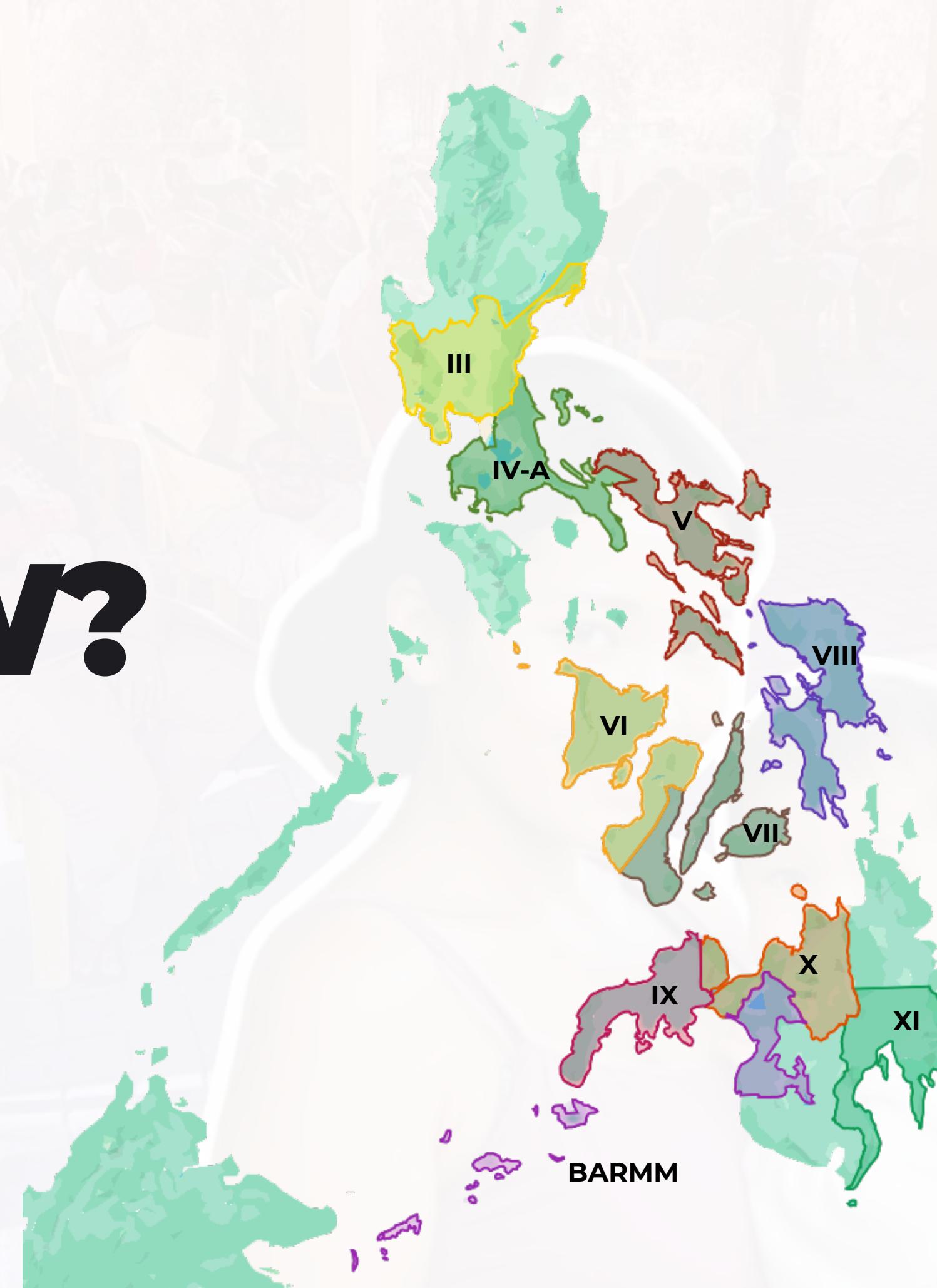
Performance Metric



Regions	Immunization	Prenatal	Education	Child Labor	Community Participation
I	2	2	2	2	3
II	2	2	2	3	3
III	1	1	1	1	4
IV-A	2	2	1	4	4
IV-B	2	3	3	3	2
V	1	4	4	4	4
VI	1	1	1	4	1
VII	4	4	1	4	1
VIII	1	1	4	4	1
IX	4	4	4	1	1
X	4	4	1	4	1
XI	4	4	3	3	1
XII	3	3	3	2	2
XIII	3	2	3	3	2
NCR	3	2	2	3	3
CAR	2	2	2	3	3
BARMM	4	4	4	1	2

Regions	Immunization	Prenatal	Education	Child Labor	Community Participation
V	1	4	4	4	4
BARMM	4	4	4	1	2
IX	4	4	4	1	1
VII	4	4	1	4	1
X	4	4	1	4	1
XI	4	4	3	3	1
VIII	1	1	4	4	1
IV-A	2	2	1	4	4
III	1	1	1	1	4
VI	1	1	1	4	1

WHAT NOW?



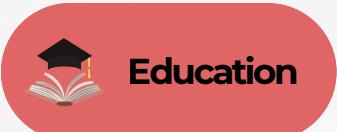
V - Bicol Region

Underlying Issues:

Disaster instability, island isolation

Recommendations:

- Portable Health & Learning Pods
- Island Reach Boat Clinics & Learning Boats
- Post-Disaster Child Safety Network



BARMM

Underlying Issues:

Conflict, displacement,
cultural hesitancy

Recommendation:

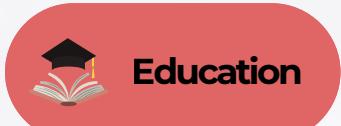
- Faith-based health dialogues and mobile education caravans.



Health and
Nutrition



Child Labor

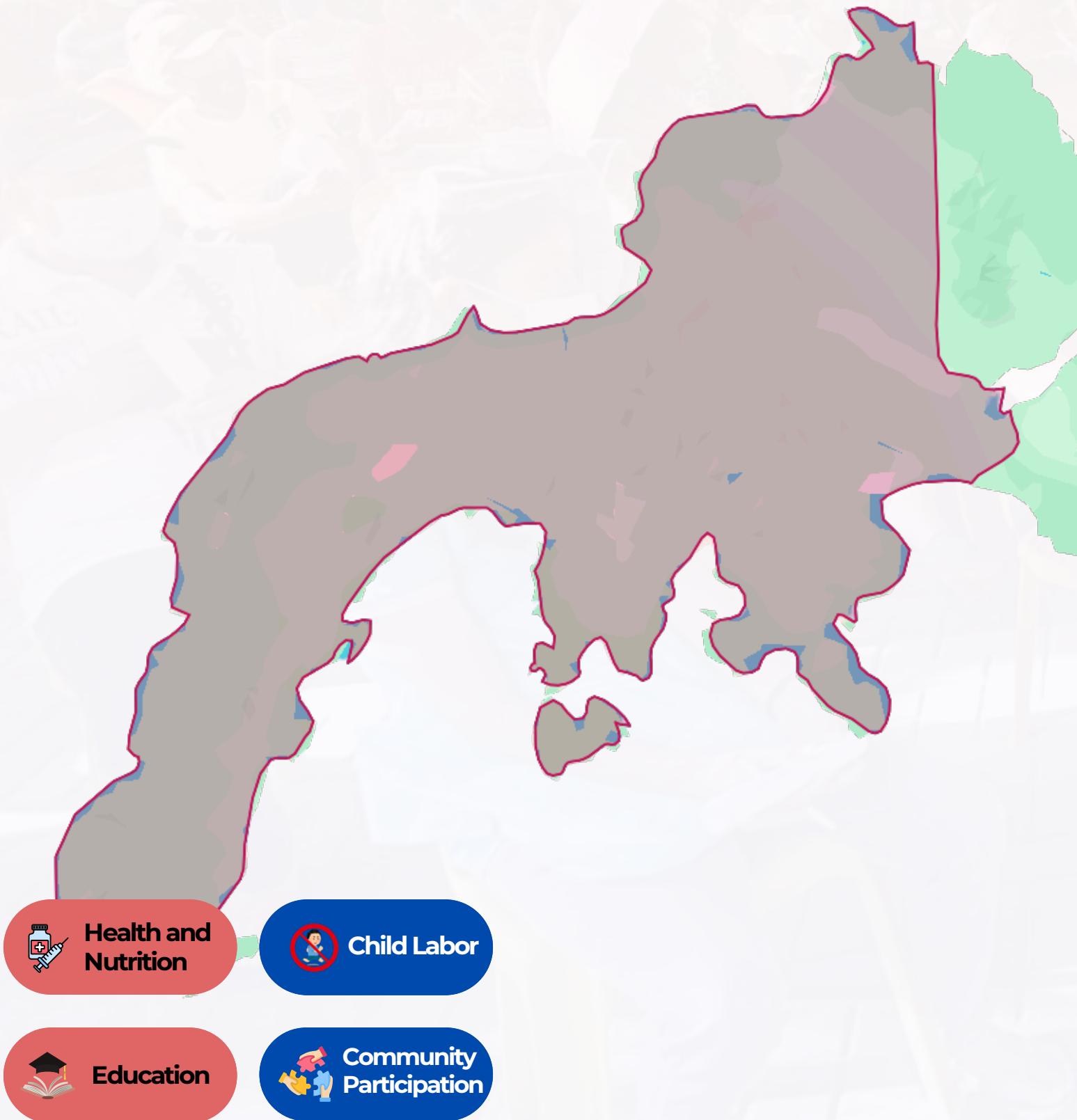


Education



Community
Participation

IX - Zamboanga Peninsula

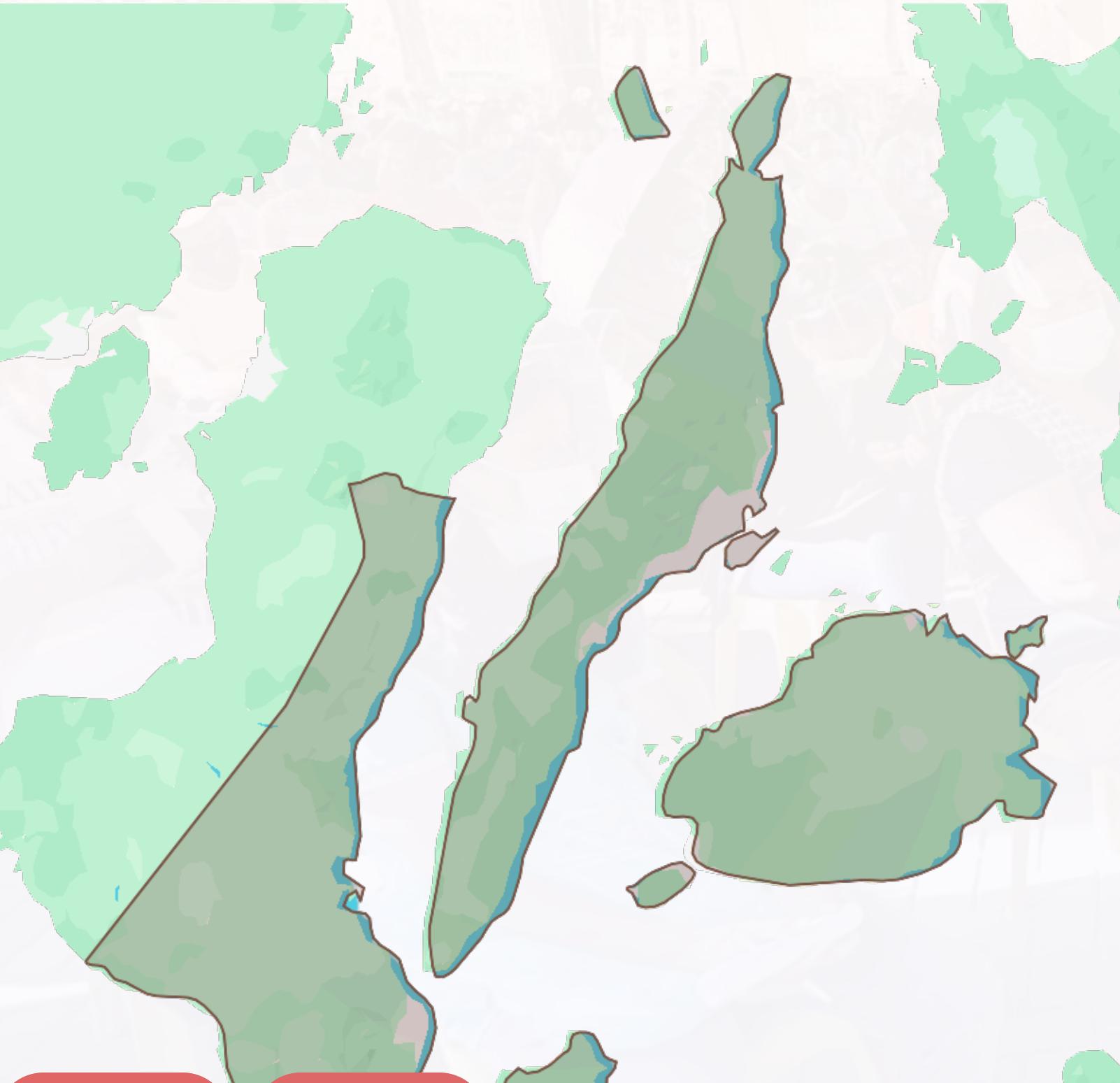


Underlying Issues:

Isolation, cultural barriers,
conflict zones

Recommendation:

Services co-developed with
peace networks and
cultural mediators.



VII - Central Visayas

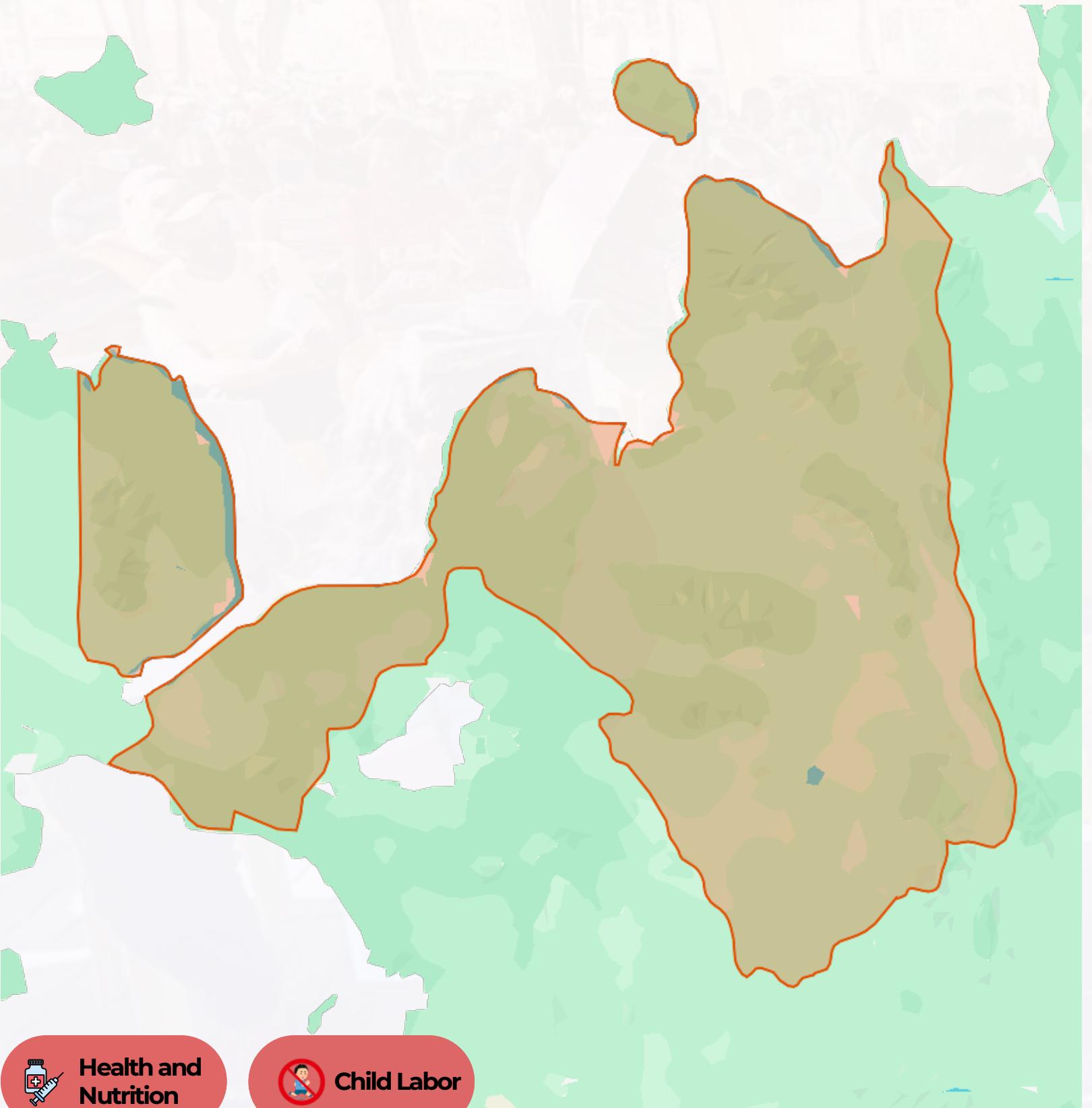
Underlying Issues:

Vaccine hesitancy, health manpower gaps

Recommendations:

- Barangay Health-On-Wheels
- Community Health Aide Expansion & Child Safety Monitoring





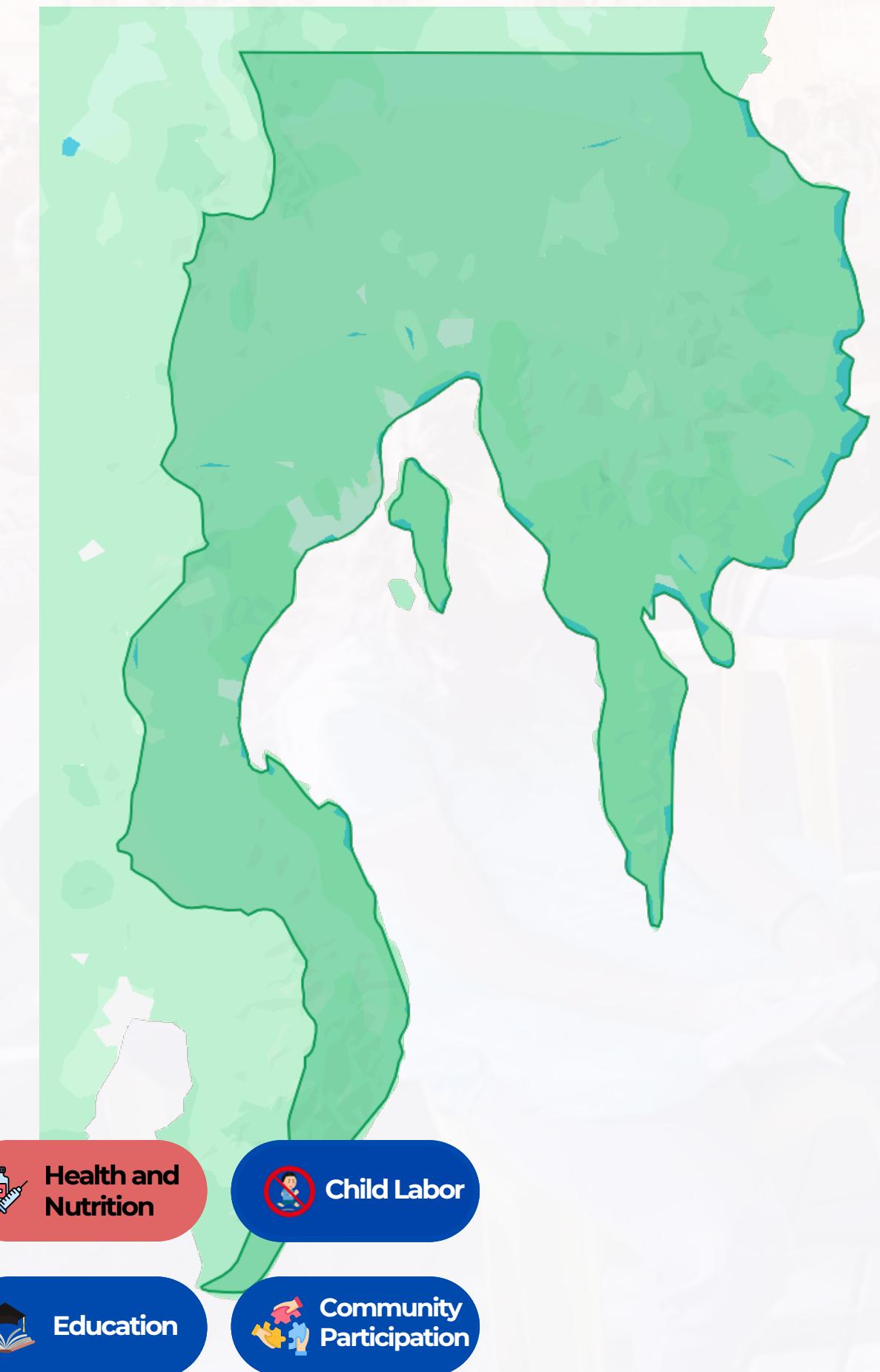
X - Northern Mindanao

Underlying Issues:

Farm work, dispersed communities, health worker shortage

Recommendation:

- Farm-based learning centers with rotating para-health workers.



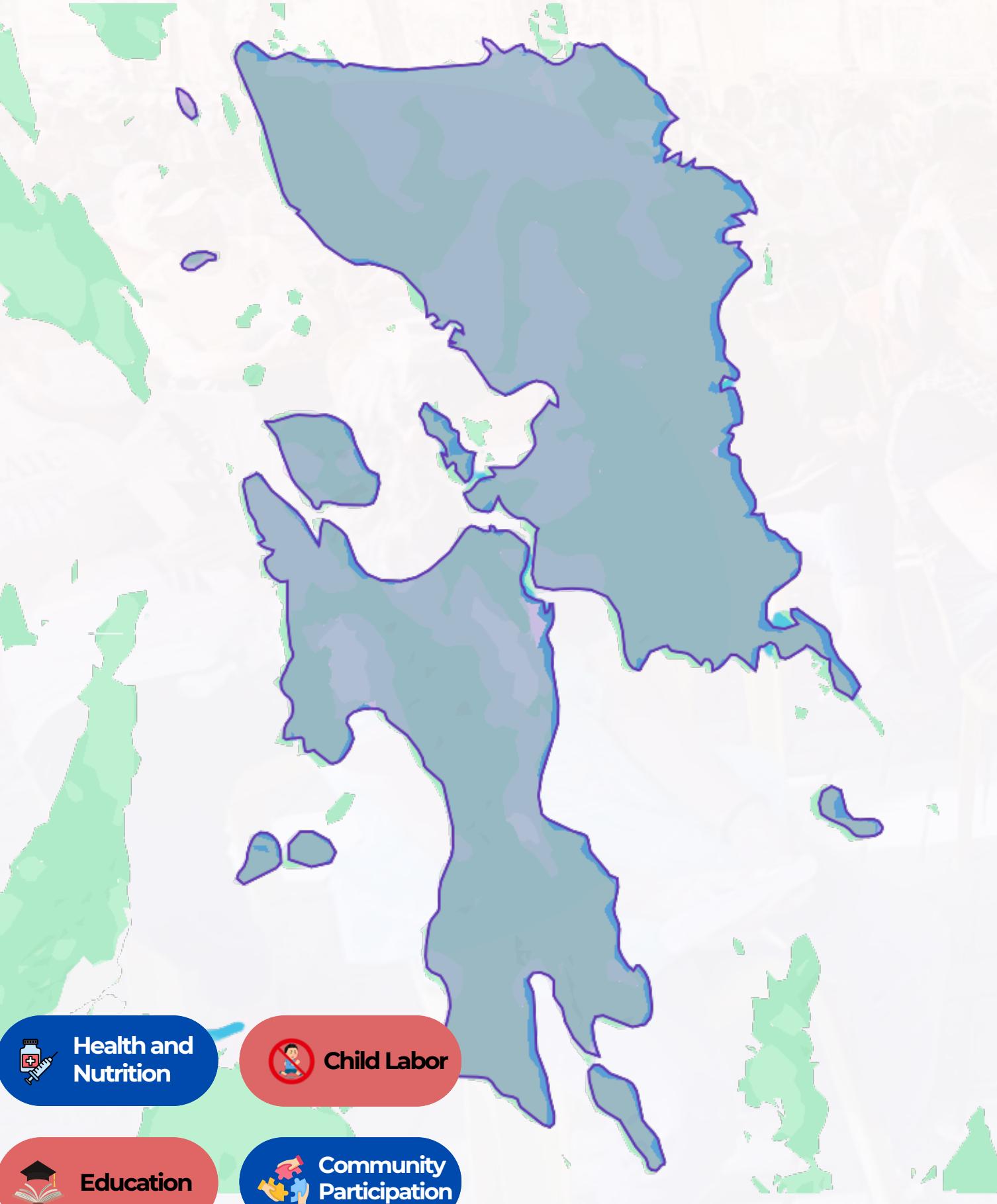
XI - Davao Region

Underlying Issues:

Poverty-driven labor, few health workers

Recommendation:

- **Scholarships** for local youth to serve as health workers.



VIII – Eastern Visayas

Underlying Issues:

Disaster recovery burden,
poverty-driven child labor

Recommendation:

- School re-entry incentives and child protection in recovery plans.



Health and
Nutrition



Child Labor

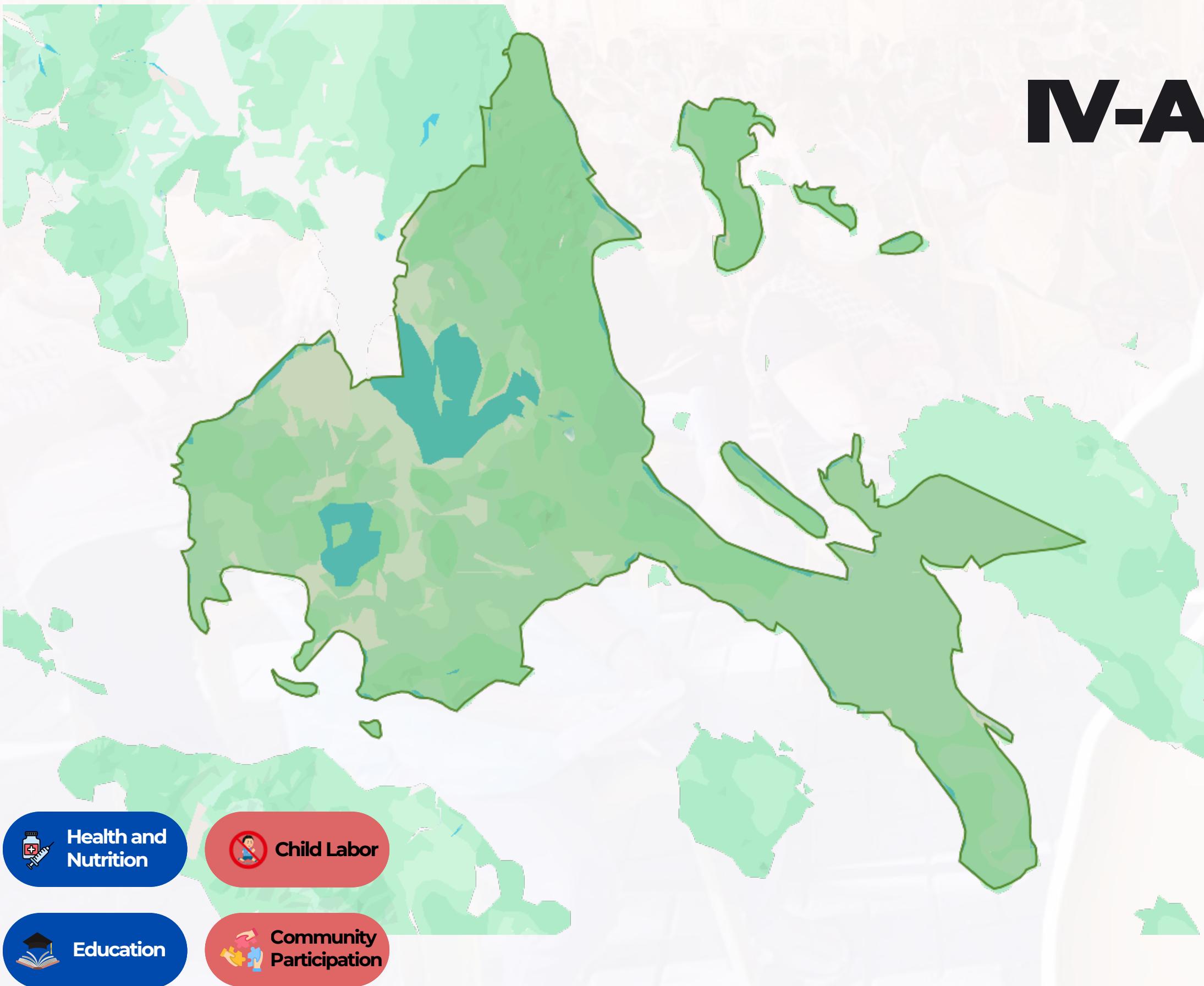


Education



Community
Participation

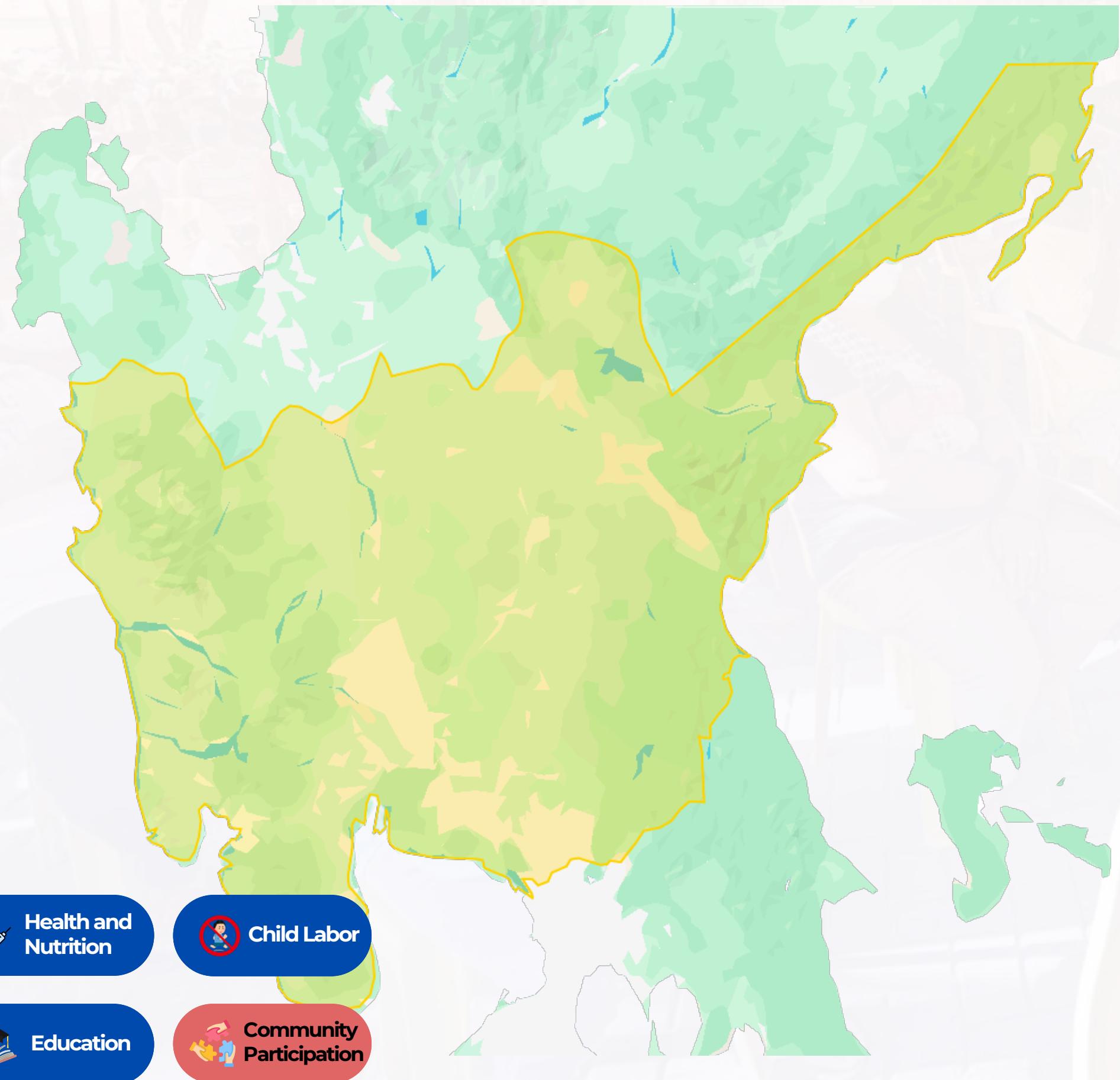
IV-A - CALABARZON



Underlying Issues:
Urban time poverty,
industrial zone pressure

Recommendation:

- Youth Workshield Monitoring
- Shift-Safe Leave Program



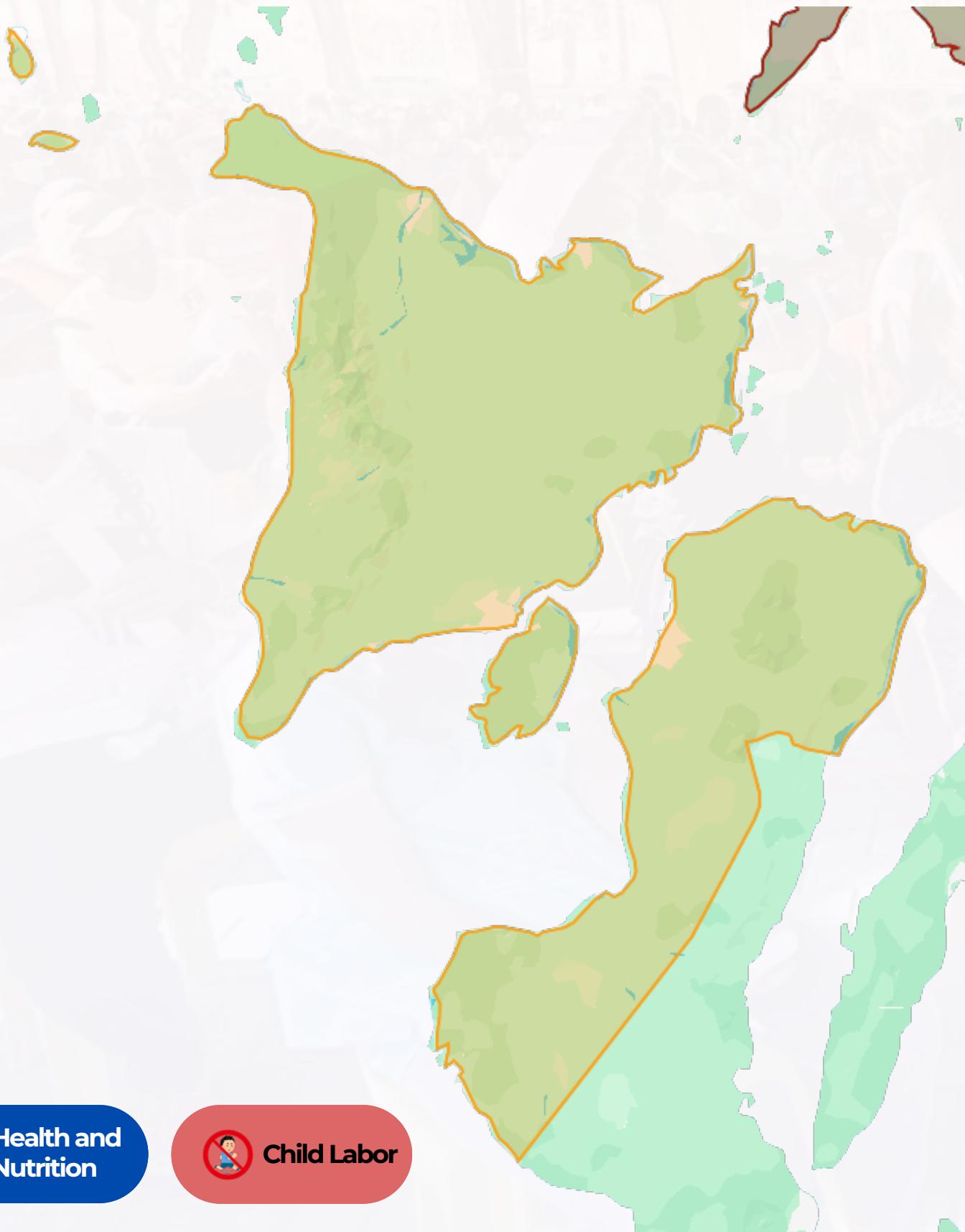
III- Central Luzon

Underlying Issues:

Informal settlements,
migration, unstable jobs

Recommendations:

- “FDS Anywhere”
Mobile Program and
Barangay Pop-Ups
- FDS Participation
Policy with employers



VI - Western Visayas

Underlying Issues:
Rural poverty

Recommendations:

- Farm-to Classroom
Income Diversion Program
- Seasonal Youth Support Scholarships



Region	Key Gaps	Underlying Issues	Strategic Intervention
III – Central Luzon	Community Participation	<ul style="list-style-type: none"> • Informal settlements • High mobility and migration • Unstable employment 	<ul style="list-style-type: none"> • “FDS Anywhere” Mobile Program and Barangay Pop-Ups • FDS Participation Policy with employers
IV-A – CALABARZON	Child Labor and Community Participation	<ul style="list-style-type: none"> • Urban time poverty • Industrial zone pressure 	<ul style="list-style-type: none"> • Youth Workshield Monitoring • Shift-Safe Leave Program
V – Bicol Region	Prenatal, Education, Child Labor, Community Participation	<ul style="list-style-type: none"> • Disaster-driven instability, island isolation 	<ul style="list-style-type: none"> • Portable Health & Learning Pods • Island Reach Boat Clinics & Learning Boats • Post-Disaster Child Safety Network
VI - Western Visayas	Child Labor	<ul style="list-style-type: none"> • Rural poverty 	<ul style="list-style-type: none"> • Farm-to Classroom Income Diversion Program • Seasonal Youth Support Scholarships
VII – Central Visayas	Immunization, Prenatal, Child Labor	<ul style="list-style-type: none"> • Urban–rural disparities, vaccine hesitancy, hospital-centric services, • Health manpower gaps 	<ul style="list-style-type: none"> • Barangay Health-On-Wheels • Community Health Aide Expansion & Child Safety Monitoring

Region	Key Gaps	Underlying Issues	Strategic Intervention
VIII – Eastern Visayas	Education, Child Labor	<ul style="list-style-type: none"> • Disaster recovery burden • Poverty-induced child labor 	<ul style="list-style-type: none"> • Embed child labor prevention into disaster recovery plans with school re-entry incentives, psychosocial support, and conditional education grants for affected families.
IX – Zamboanga Peninsula	Immunization, Prenatal, Education	<ul style="list-style-type: none"> • Geographic isolation • Cultural barriers • Conflict zones 	<ul style="list-style-type: none"> • Co-develop health and education services with peace networks and cultural mediators to ensure safe, trusted access points in conflict-prone and isolated areas.
X – Northern Mindanao	Immunization, Prenatal, Child Labor	<ul style="list-style-type: none"> • Farm work • Dispersed rural communities • Shortage of health workers 	<ul style="list-style-type: none"> • Pilot farm-based learning centers with rotating para-health workers and integrated prenatal and immunization services to reach remote farming families.
XI – Davao Region	Immunization and Prenatal	<ul style="list-style-type: none"> • Poverty driven labor • Few health workers 	<ul style="list-style-type: none"> • Expand community health scholarships for local youth to become health workers, tied to service in underserved barangays and linked to poverty reduction programs.
BARMM	Immunization, Prenatal, Education	<ul style="list-style-type: none"> • Conflict, displacement • Cultural hesitancy reduce access and trust in public systems 	<ul style="list-style-type: none"> • Build trust through faith-based health dialogues, deploy mobile education caravans, and embed culturally adapted prenatal and immunization services in displacement zones.

Investing in these interventions means
investing in **empowered families,**
stronger communities, and a **more**
effective program.

4TW



References:

Poverty & Regional Statistics

- Onsay, R. V., Panganiban, V. G., & de la Cruz, M. M. S. (2024). Measuring the unmeasurable multidimensional poverty [Academic paper]. [Check Google Scholar or university libraries].
- Philippine Statistics Authority. (2024). Regional poverty data 2024. Retrieved November 15, 2025, from SECTION A: WHY REGIONS UNDERPERFORM (Root Causes)
- POVERTY & REGIONAL STATISTICS
- Philippine Statistics Authority (PSA) - Regional Poverty Data 2024 Key Finding: BARMM 23.5%, Zamboanga 24.4%, Bicol 20.3% poverty rates
- Link: <https://psa.gov.ph/statistics/poverty> (search for "poverty statistics Philippines 2024")
- Relevance: Explains baseline poverty context for underperforming regions
- Onsay et al. (2024) - "Measuring the unmeasurable multidimensional poverty" Key Finding: Camarines Sur (Bicol) at 38.7% poverty incidence (2021)
- Link: Academic paper (check Google Scholar or university libraries)
- Relevance: Documents disaster vulnerability compounding poverty in Bicol
- World Bank Philippines Urbanization Review (2017) Key Finding: 5.4% urban population (2.2M) in informal settlements; "trapped in informal sector out of necessity"
- Link: <https://www.worldbank.org/en/country/philippines>
- Relevance: Explains time poverty in urbanized Central Luzon/CALABARZON
- World Bank. (2017). Philippines urbanization review. Retrieved November 15, 2025, from SECTION A: WHY REGIONS UNDERPERFORM (Root Causes)
- POVERTY & REGIONAL STATISTICS

References:

- POVERTY & REGIONAL STATISTICS
- Philippine Statistics Authority (PSA) - Regional Poverty Data 2024 Key Finding: BARMM 23.5%, Zamboanga 24.4%, Bicol 20.3% poverty rates
- Link: <https://psa.gov.ph/statistics/poverty> (search for "poverty statistics Philippines 2024")
- Relevance: Explains baseline poverty context for underperforming regions
- Onsay et al. (2024) - "Measuring the unmeasurable multidimensional poverty" Key Finding: Camarines Sur (Bicol) at 38.7% poverty incidence (2021)
- Link: Academic paper (check Google Scholar or university libraries)
- Relevance: Documents disaster vulnerability compounding poverty in Bicol
- World Bank Philippines Urbanization Review (2017) Key Finding: 5.4% urban population (2.2M) in informal settlements; "trapped in informal sector out of necessity"
- Link: <https://www.worldbank.org/en/country/phippines>
- Relevance: Explains time poverty in urbanized Central Luzon/CALABARZON

Geographic Isolation & Terrain

- DepEd Caraga Regional Profile. (2025). DepEd Caraga. Retrieved November 15, 2025, from SECTION A: WHY REGIONS UNDERPERFORM (Root Causes)
- POVERTY & REGIONAL STATISTICS
- Philippine Statistics Authority (PSA) - Regional Poverty Data 2024 Key Finding: BARMM 23.5%, Zamboanga 24.4%, Bicol 20.3% poverty rates

References:

- Philippine Statistics Authority (PSA) - Regional Poverty Data 2024 Key Finding: BARMM 23.5%, Zamboanga 24.4%, Bicol 20.3% poverty rates
 - Link: <https://psa.gov.ph/statistics/poverty> (search for "poverty statistics Philippines 2024")
 - Relevance: Explains baseline poverty context for underperforming regions
 - Onsay et al. (2024) - "Measuring the unmeasurable multidimensional poverty" Key Finding: Camarines Sur (Bicol) at 38.7% poverty incidence (2021)
 - Link: Academic paper (check Google Scholar or university libraries)
 - Relevance: Documents disaster vulnerability compounding poverty in Bicol
- World Bank Philippines Urbanization Review (2017) Key Finding: 5.4% urban population (2.2M) in informal settlements; "trapped in informal sector out of necessity"
 - Link: <https://www.worldbank.org/en/country/philippines>
 - Relevance: Explains time poverty in urbanized Central Luzon/CALABARZON (look for regional profile/reports section)
- Philippine Statistics Authority. (2020). Proportion of urban population: 2020 Census of Population and Housing. Retrieved November 15, 2025, from SECTION A: WHY REGIONS UNDERPERFORM (Root Causes)
- POVERTY & REGIONAL STATISTICS
- Philippine Statistics Authority (PSA) - Regional Poverty Data 2024 Key Finding: BARMM 23.5%, Zamboanga 24.4%, Bicol 20.3% poverty rates