

EXAMINING CHRONIC AND TRANSIENT POVERTY USING THE COMMUNITY-BASED MONITORING SYSTEM (CBMS) DATA: THE CASE OF THE MUNICIPALITY OF ORION

Alellie Borel Sobreviñas, Phd.

Associate Professor

School of Economics, De La Salle University- Manila

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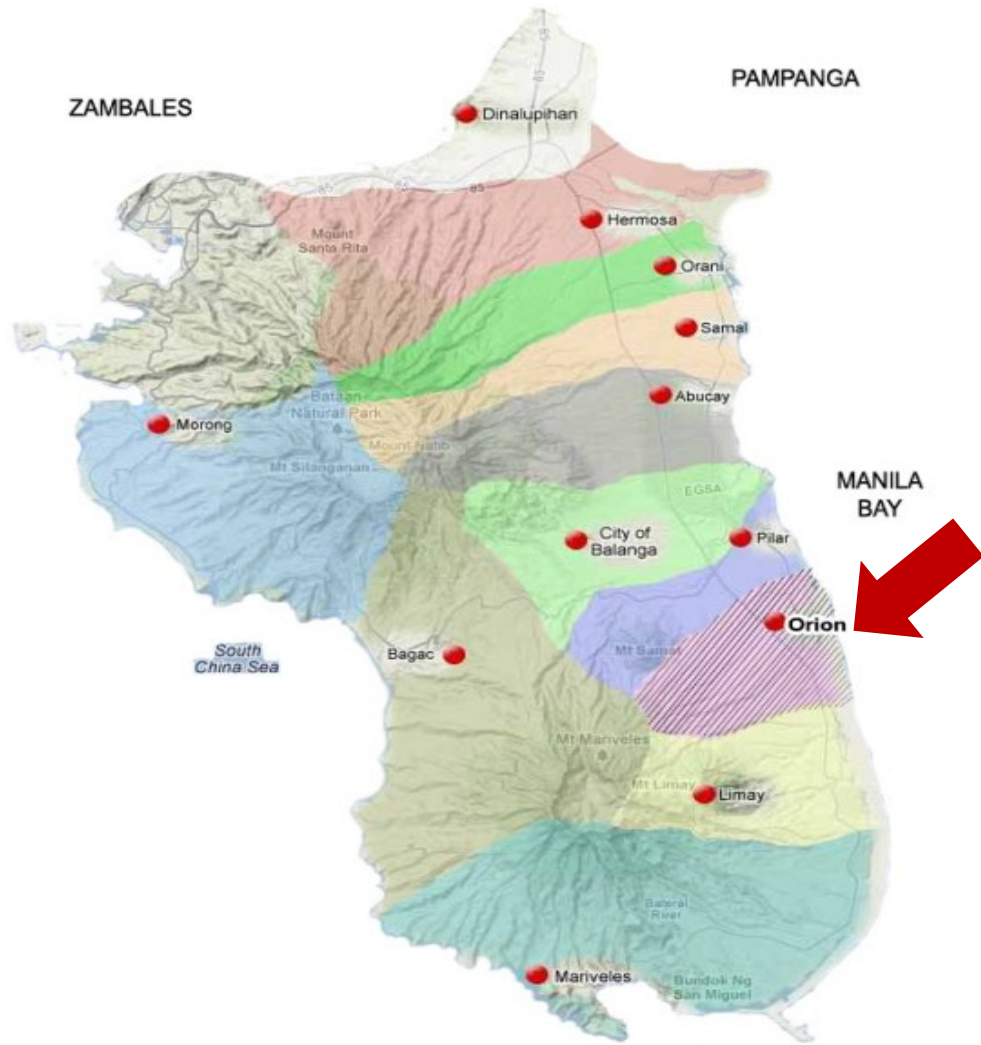
Novotel Manila Araneta Center

Quezon City, Philippines

OUTLINE OF PRESENTATION

1. General profile of Orion, Bataan
2. Construction of CBMS panel data (2006, 2009, 2012)
3. Poverty profile of Orion, Bataan
4. Identifying chronic and transient poor households
5. Factors that determine poverty status of households
6. Concluding remarks

1. GENERAL PROFILE OF ORION (BATAAN)



- **No. of barangays:** 23 (14 urban; 9 rural)
- **Total land area:** 6,541 hectares
(agricultural land : 79.4%)
- **Source of livelihood:** fishing, wholesale and retail trade, transportation, construction
- **Other employment opportunities:**
 - *domestic* - in nearby municipalities (e.g., Limay, where several heavy industries are operating and cities (e.g., City of Balanga))
 - *abroad* (e.g., in Saudi Arabia)

Map showing the location of Orion

Source: LGU-Orion

2. CONSTRUCTION OF THE CBMS PANEL DATA

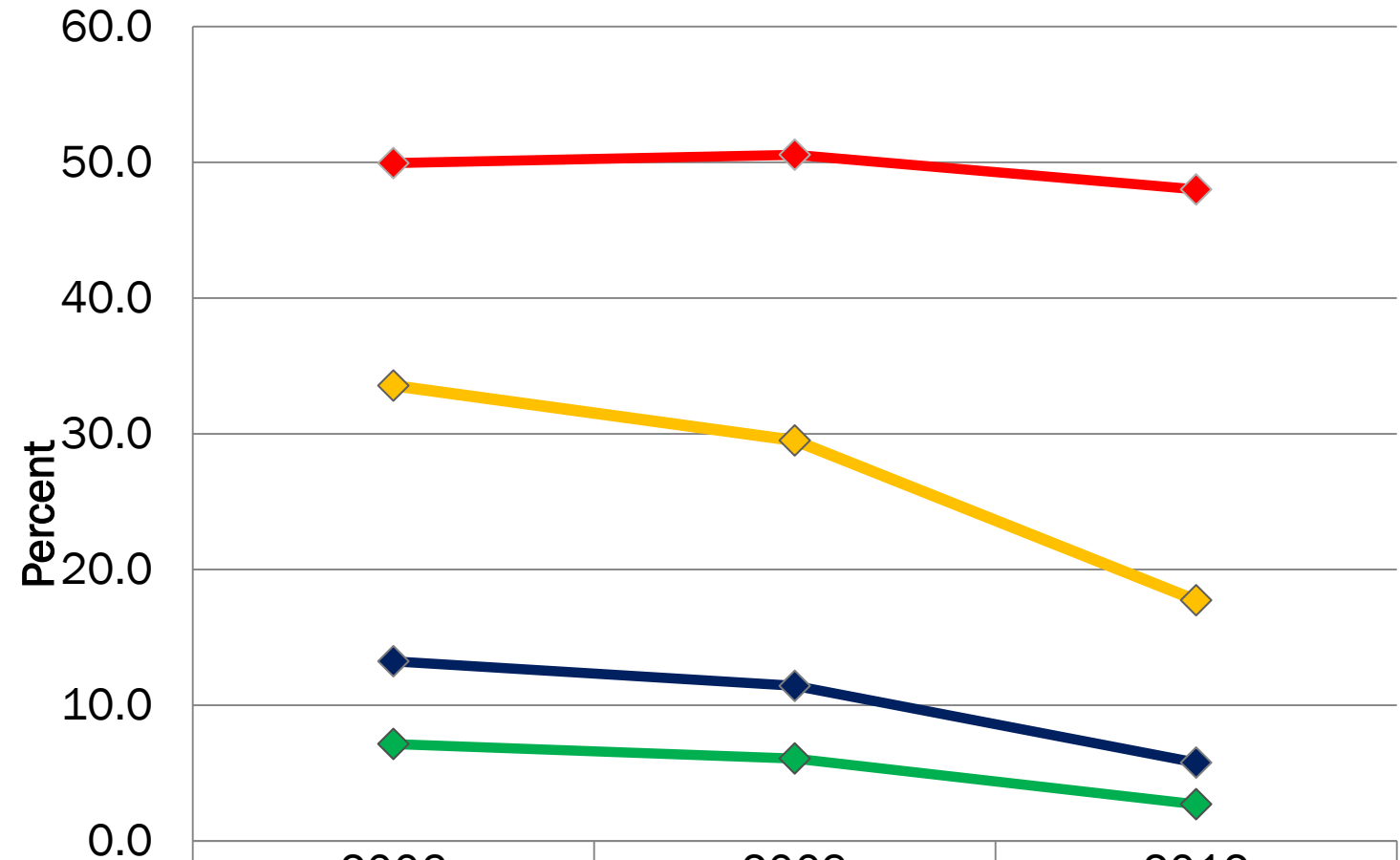
- matching the same household for the three periods covered in this study (2006, 2009 and 2012)
- a household is considered the same as in the previous period if there is **at least one common member** (except household helper) in both periods

Total number of matched households: 4,299

3. POVERTY PROFILE OF ORION

Poverty incidence, gap, severity and Gini coefficient

Note: Inverse probability weights are used to account for attrition based on Fitzgerald, et al. (1998).



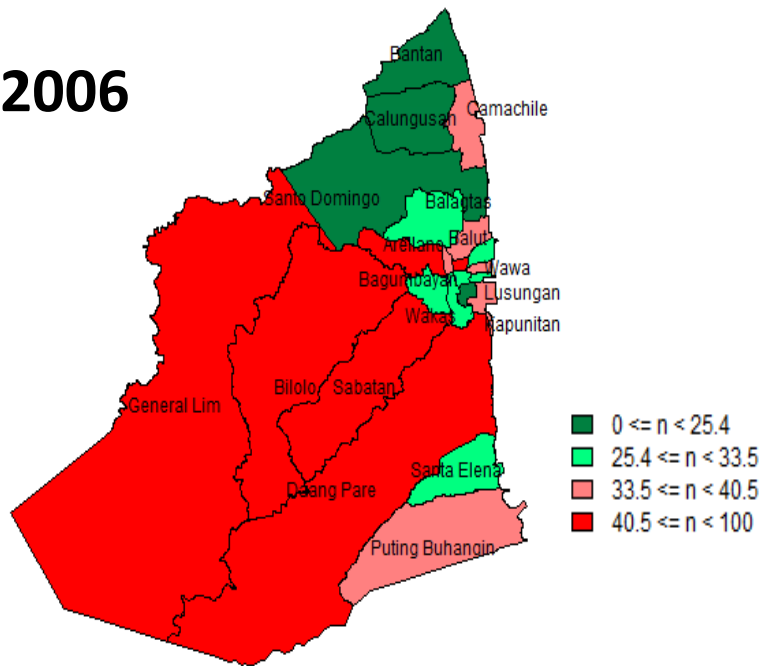
Source of basic data:

Constructed panel dataset of Sobrevinas (2017) using CBMS data of Orion (2006, 2009 and 2012)

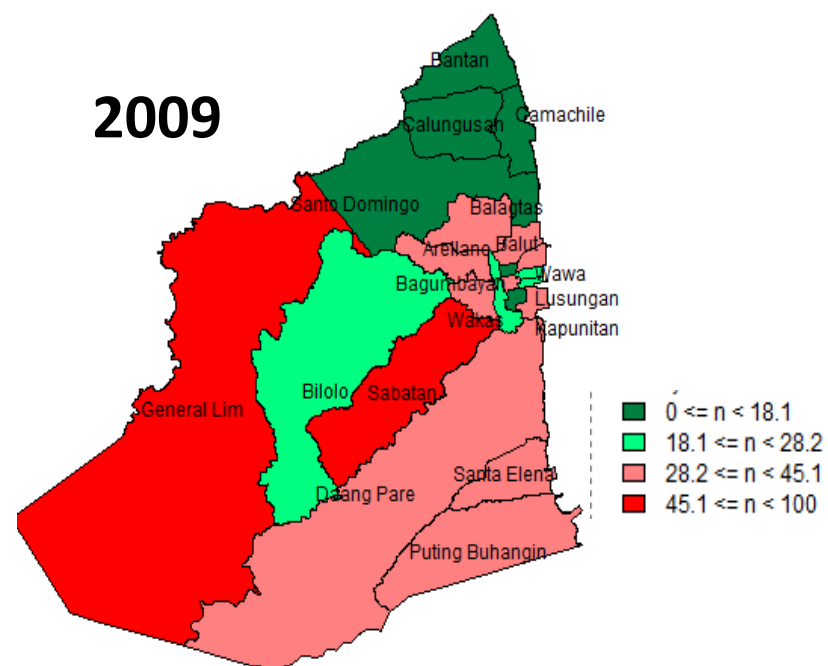
| | | | |
|-----------------------|------|------|------|
| ◆ Poverty Incidence | 33.6 | 29.5 | 17.7 |
| ◆ Gini Coefficient | 49.9 | 50.6 | 48.0 |
| ◆ Poverty Gap | 13.2 | 11.4 | 5.8 |
| ◆ Severity of Poverty | 7.1 | 6.1 | 2.7 |

Proportion of income poor in Orion by barangay

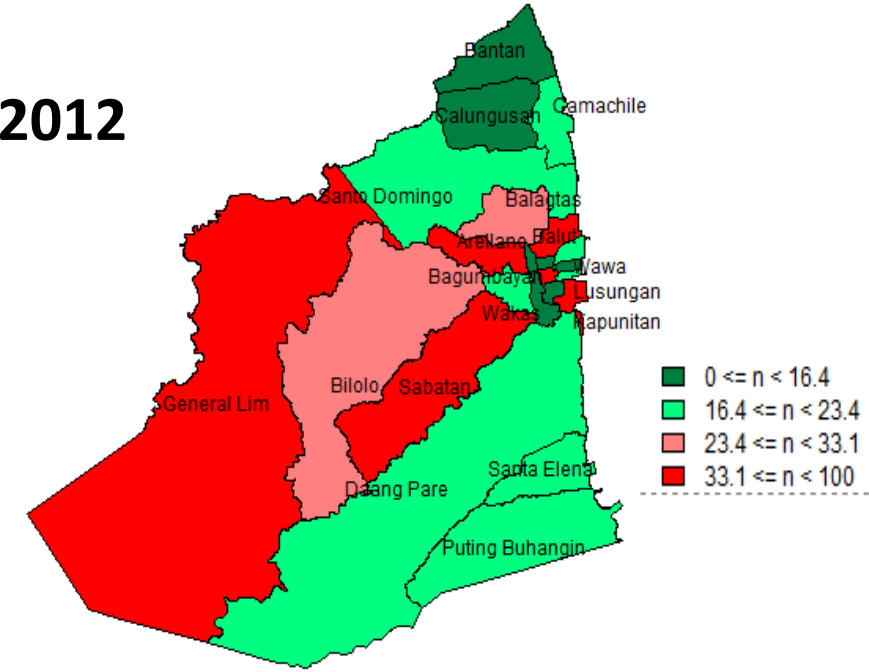
2006



2009



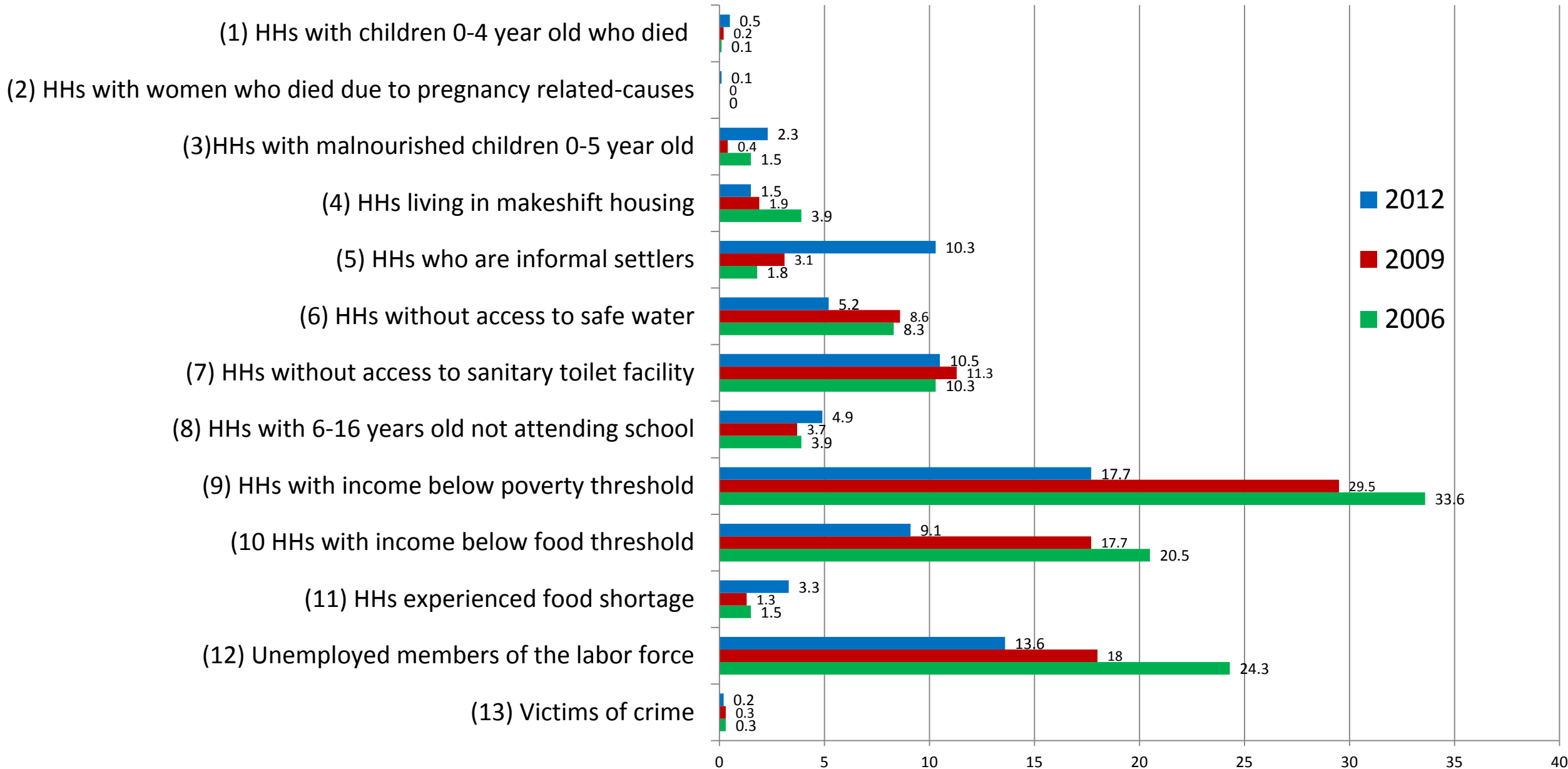
2012



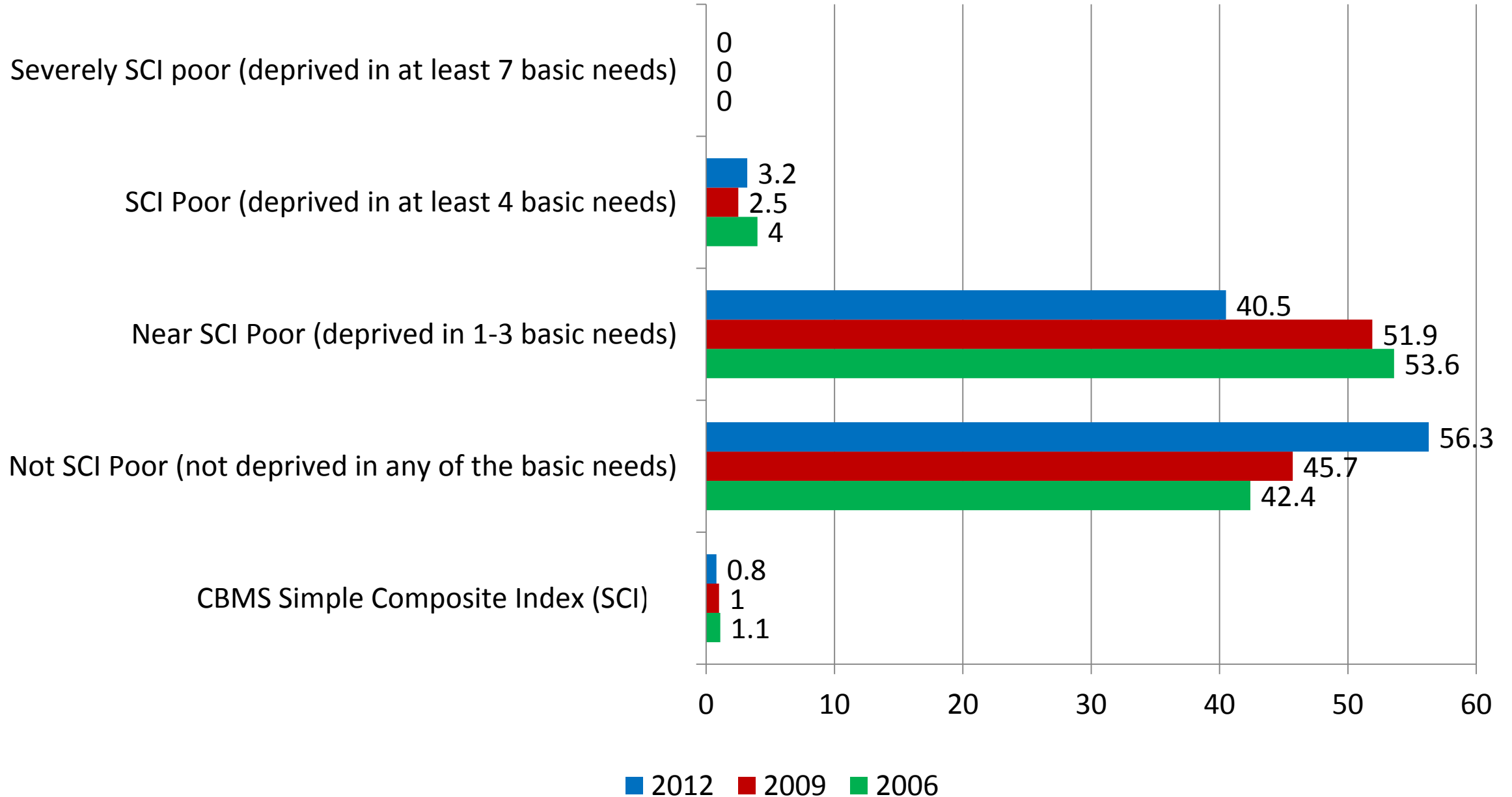
Source of basic data: Constructed panel dataset of Sobreviñas (2017) using CBMS data of Orion (2006, 2009 and 2012)

- general improvement in the poverty situation (2006-2012)
- some barangays recorded no improvement (or even became worse off compared to other barangays)
- more barangays exhibited better conditions

CBMS core poverty indicators in Orion (panel households)



CBMS simple composite indicator in Orion (panel households)

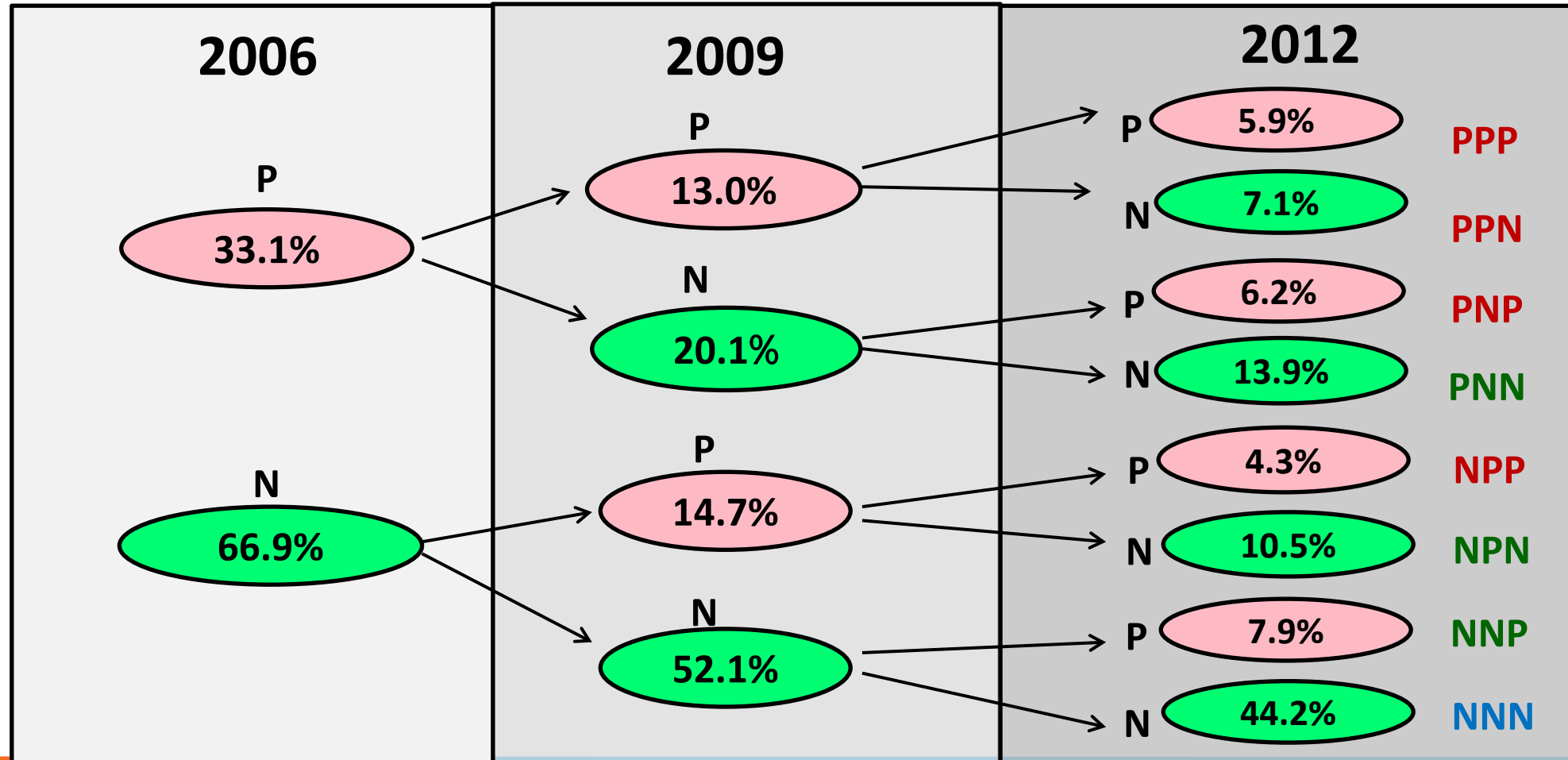


4. IDENTIFYING CHRONIC AND TRANSIENT POOR HOUSEHOLDS

- **Chronic poor households**- those which were classified as income poor at each, or at most, observation points
- **Transient poor households** - those which are classified as income poor in a given point in time but with per capita income above the poverty line in most observation points.

Source: Baulch and Hoddinot, 2000

Movements in and out of poverty: Orion, 2006-2012



Note: N=Nonpoor; P=Poor; Source of basic data: CBMS Census of Orion, Bataan: 2006, 2009 and 2012.

Total number of matched households: **4,299**

Chronic poor (PPP, PPN, NPP): 23.5%

Transient poor (PNN; NPN; NNP): 32.3%

Characteristics of chronic and transient poor households

| | Chronic poor | | | Transient poor | | | Never poor (NNN) | | | TOTAL | | |
|--|--------------|------|------|----------------|------|------|------------------|------|------|-------|------|------|
| No. of HHs | 1,013 | | | 1,386 | | | 1,900 | | | 4,299 | | |
| Share to total HHs (%) | 23.5 | | | 32.3 | | | 44.2 | | | 100.0 | | |
| | 2006 | 2009 | 2012 | 2006 | 2009 | 2012 | 2006 | 2009 | 2012 | 2006 | 2009 | 2012 |
| Living in urban areas (%) | 40.4 | 39.6 | 53.8 | 42.8 | 41.9 | 58.7 | 42.8 | 42.3 | 66.1 | 42.2 | 41.5 | 60.8 |
| HHsize | 5.8 | 5.7 | 4.4 | 5.1 | 5.3 | 4.0 | 4.9 | 4.8 | 3.8 | 5.2 | 5.2 | 4.0 |
| Dependency ratio | 0.9 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| Male-headed (%) | 87.0 | 83.5 | 88.0 | 80.1 | 76.7 | 82.5 | 71.7 | 67.7 | 80.3 | 78.0 | 74.3 | 82.4 |
| Propn. of HH heads who are at least high school graduate (%) | 33.0 | 34.2 | 33.6 | 45.8 | 47.6 | 43.4 | 55.8 | 55.2 | 50.3 | 47.2 | 47.8 | 48.3 |
| With agriculture as a source of income (%) | 20.0 | 33.6 | 29.3 | 10.8 | 22.4 | 17.2 | 10.1 | 15.9 | 13.7 | 12.6 | 22.2 | 18.5 |

Sources of basic data: CBMS Census of Orion, Bataan: 2006, 2009, 2012

Chronic poor households vs. transient poor households

- bigger household size
- higher dependency ratio
- higher proportion of male-headed HHs

- less-educated HH heads
- more dependent on agriculture as a source of income
- lesser proportion of HHs living in urban areas

Characteristics of chronic and transient poor households

| | Chronic poor | | | Transient poor | | | Never poor (NNN) | | | TOTAL | | |
|--|--------------|------|------|----------------|------|------|------------------|------|------|-------|------|------|
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| Share to total HHs (%) | 23.5 | | | 32.3 | | | 44.2 | | | 100.0 | | |
| | 2006 | 2009 | 2012 | 2006 | 2009 | 2012 | 2006 | 2009 | 2012 | 2006 | 2009 | 2012 |
| Living in makeshift housing (%) | 8.8 | 2.3 | 2.7 | 4.3 | 1.9 | 1.6 | 2.8 | 1.2 | 0.8 | 4.7 | 1.7 | 1.5 |
| Informal Settlers | 3.2 | 2.8 | 11.3 | 1.9 | 3.2 | 6.1 | 1.5 | 1.9 | 4.5 | 2.0 | 2.5 | 6.6 |
| Without access to safe water | 11.7 | 8.7 | 5.9 | 8.7 | 7.1 | 5.1 | 7.3 | 9.3 | 4.3 | 8.7 | 4.9 | 1.5 |
| Without access to sanitary toilet facilities | 20.6 | 21.9 | 22.2 | 10.2 | 12.2 | 11.6 | 4.8 | 5.4 | 5.9 | 10.3 | 11.5 | 11.6 |
| With unemployed members | 25.1 | 19.3 | 18.1 | 27.1 | 21.3 | 15.7 | 25.2 | 18.6 | 12.0 | 25.8 | 19.6 | 14.6 |
| Unemployment rate | 22.3 | 15.9 | 14.5 | 22.9 | 16.8 | 11.8 | 19.0 | 15.5 | 9.7 | 21.0 | 16.0 | 11.6 |
| With OFW member | 4.5 | 7.7 | 5.1 | 15.4 | 17.8 | 16.7 | 26.4 | 30.7 | 25.2 | 17.7 | 21.1 | 17.7 |

Sources of basic data: CBMS Census of Orion, Bataan: 2006, 2009, 2012

Chronic poor households vs. transient poor households

- higher proportion of HHs living in makeshift housing, informal settlers, without access to safe water, without access to sanitary toilet facilities
- lower proportion of HHs with an OFW member

5. FACTORS THAT DETERMINE THE POVERTY STATUS OF HOUSEHOLDS

Fixed effects logit model (using attrition weights)

➤ Dependent variable:

- Income poverty status (1=poor; 0=nonpoor)

Independent variables

- Household head characteristics
- Household characteristics
- Community (barangay) characteristics

Model 1: HH head characteristics + HH characteristics

Model 2: HH head characteristics + HH characteristics + year dummies

Model 3: HH head characteristics + HH characteristics + community characteristics

Model 4: HH head characteristics + HH characteristics + community characteristics + year dummies

Fixed effects logit models

Dependent variable: Income poverty status (1=poor; 0=nonpoor)

| Indicator | Model 4 | |
|--|--------------------|------------|
| | Coeff. | Std. Error |
| HH HEAD CHARACTERISTICS | | |
| Sex (Male=1; Female=0) | -0.0153 | 0.0998 |
| Age (in years) | 0.0330 * | 0.0171 |
| Age (in years) - squared | -0.0005 *** | 0.0002 |
| Educational attainment (base category: prep. educ. or no grade at all) | | |
| Elem. undergraduate | -0.3210 | 0.2289 |
| Elem. graduate | -0.4326 * | 0.2356 |
| High School undergraduate | -0.2690 | 0.2382 |
| High School graduate | -0.7099 *** | 0.2340 |
| College undergraduate | -0.8619 *** | 0.2632 |
| College graduate or postgraduate | -0.8855 *** | 0.2767 |
| Household size | 0.2804 *** | 0.0207 |
| Dependency ratio | 0.4132 *** | 0.0545 |
| With OFW member | -2.3871 *** | 0.1475 |
| Agriculture as income source | 0.0714 | 0.0888 |

| Indicator | Model 4 | |
|--|--------------------|---------------|
| | Coeff. | Std. Error |
| HOUSEHOLD CHARACTERISTICS | | |
| Makeshift housing | 0.1430 | 0.1793 |
| Informal settler | 0.3064 ** | 0.1487 |
| Access to basic facilities | | |
| No access to safe water | 0.3952 *** | 0.1176 |
| No access to sanitary toilet facilities | 0.5019 *** | 0.1096 |
| Living in urban area | 0.2397 *** | 0.0876 |
| COMMUNITY CHARACTERISTICS | | |
| Share of employed persons in the agriculture | 0.0181 ** | 0.0074 |
| Ave. years of schooling among adults | -0.2710 * | 0.1509 |
| Year dummies | | |
| 2009 dummy | -0.2803 *** | 0.0631 |
| 2012 dummy | -0.1511 ** | 0.0714 |

CONCLUDING REMARKS

- Poor can be classified further as chronic or transient poor
- Through the identification of chronic poor and transient poor households, local policymakers can identify more appropriate interventions that consider the differences in their needs.

Examples:

- *chronic poor*: longer-term investments such as those which increase their human and physical assets
- *transient poor*: insurance/protection from shocks, income stabilization schemes

CONCLUDING REMARKS

- For LGUs with more than one round of CBMS implementation, their CBMS datasets can be used in analyzing poverty as a dynamic phenomenon which can help in designing more effective policies and programs.
 - encourage further the assignment of the same HH ID for the same household during data collection stage

Thank you!

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Associate Professor

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alellie.sobrevinas@dlsu.edu.ph



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