

# Local Nutrition Program Implementation on Food Security and Nutritional Status: Case Study of Batanes and Aurora

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# Introduction

- Provision of good nutrition, and prevention and eradication of malnutrition, is a complex undertaking that require multi-sectoral and multi-dimensional solutions.
- Undernutrition in the Philippines have not seen major improvements in the past 3 decades (World Bank, 2021)
  - Stunting remained of “high” public health significance for the past 25 years (1993-2018)

- Under the Local Government Code, public health service is the responsibility of LGUs which have high discretion in terms of resource allocation and decision-making for health services, social services, agriculture and environment services and other functions.

- The NNC identified three of the most common impediments to setting up a functional nutrition programs:
  - non-sympathetic local chief executives (LCEs)
  - limited budget
  - difficult terrain



- Batanes and Aurora are two provinces which are both distant from the regional centers of commerce but differ in food security status and nutritional status of selected population groups.





# 2016 LFHNS

- Batanes:
  - stunting prevalence at 8.4% for 0-60 months old (“low” public health significance)
  - food secure households at 73.2%
- Aurora:
  - stunting prevalence at 31.9% for 0-60 months old (“medium” public health significance)
  - food secure households at 41.4%

# Batanes

- Considered a geographically isolated and disadvantaged area (GIDA)
- 2021 Poverty Incidence: 2.6%
- A Nutrition Honor Awardee (NHA) in 2011 by the NNC
  - Conferred to LGUs with consistent outstanding performances in nutrition management for six consecutive years

# Aurora Province

- One of the priority areas in the PPAN 2017-2022 being one of the 36 provinces with the highest stunting prevalence (based on the 2015 Updating Survey)
- 2021 Poverty Incidence: 16.5%



# Objectives

- Determine the factors affecting food security and nutritional status in the provinces of Batanes and Aurora
- Identify the best practices done and challenges encountered by the two provinces in implementing food and nutrition programs

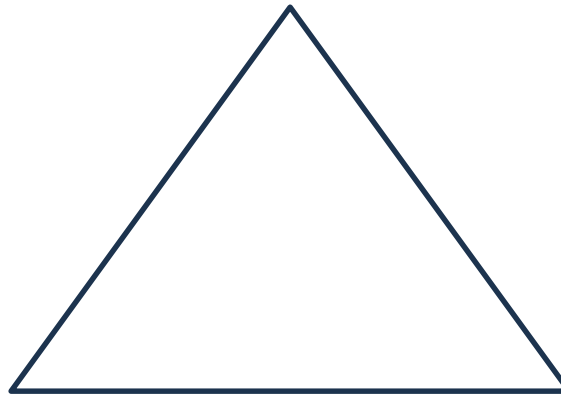
# Significance

- Document the best practices and challenges of the two provinces in addressing food insecurity and stunting for other LGUs to learn from.
- Holistic approach to understand the factors that affect food security and nutritional status will contribute to better crafting or improving programs
- Guide in reviewing planning, targeting and monitoring systems and evaluation in food and nutrition

# METHODOLOGY

# Mixed Method

Secondary data analysis  
of the 2016 LFHNS



Qualitative information  
through KII and FGD

Local administrative  
data

- Quantitative analysis:
  - Secondary data analysis using the 2016 Local-level Food, Health and Nutrition Survey (LFHNS):
    - Socio-demographic characteristics, Household food security status and anthropometric measurements
    - Descriptive statistics and logistic regression
  - Administrative data on nutrition, food and health-related programs and services in Aurora and Batanes

- Qualitative information through **KII** and **FGD** among selected local program implementers and officials in both provinces

Method	Respondents
<b>Key Informant Interview (KII)</b>	PHO/PNAO, MHO/MNAOs, DNPCs, other local officers involved in nutrition program implementation in the two provinces
<b>Focus Group Discussion (FGD)</b>	BNS, BHWs, Teacher/s involved in nutrition program, Kagawad on Health  2 focus groups per province



# Ethical Considerations

- Research Protocol was reviewed and cleared by the FNRI Institutional Ethics Review Committee (FIERC) with protocol code: FIERC-2021-010; September 15, 2021
- Approval of NCIP-Batanes based on the meeting with Ivatan Council of Elders last March 18, 2022

# Data Collection

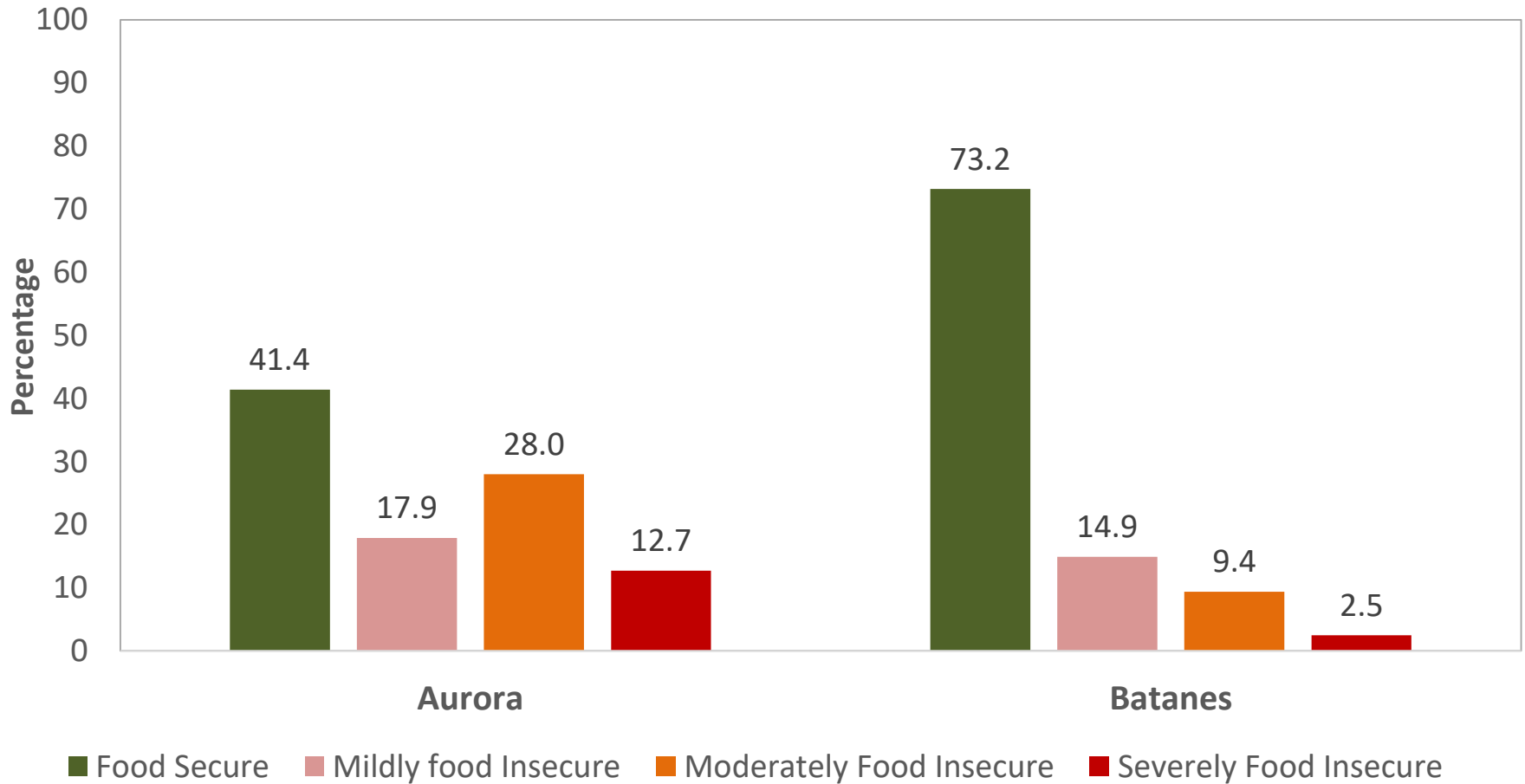
- Face-to-face and/or videoconferencing
  - Aurora: September-October 2021
  - Batanes: April-May 2022

# RESULTS

# Number of participants

	Batanes	Aurora
I. Secondary analysis, 2016 LFHNS		
Household Food Security	1,012 Hhs	1,282 Hhs
Children, 0-59 months old	314	510
Children 6-10 years old	328	660
Adolescents, 11-18 years old	514	950
II. Qualitative Analysis		
KII	7 KIIs	10 KIIs
FGD	3 groups	2 groups

# Proportion of households by food security status: 2016 LFHNS



# Factors associated with **household food insecurity** in Batanes and Aurora: 2016 LFHNS

Variable	Adjusted Odds Ratio	
	Aurora	Batanes
Household wealth		
Poor	5.9	7.3
Middle	3.3	3.2
Household Size		
>5 members	1.7	1.5
With OFW in the Household**	1.9	-
With child <5 years old***	-	1.5

*Multiple logistic regression*

*Significant at  $p < 0.05$*

*\*\*Significant only for Aurora*

*\*\*\*Significant only for Batanes*

*Comparison variable: rich wealth status; 5 or less members; at least college; no occupation*



# Continuation...

Variable	Adjusted Odds Ratio	
	Aurora	Batanes
Educational Attainment**		
At least elementary	1.9	-
At least vocational	0.5	-
Occupation**		
Technicians / Associate professionals	3.9	-
Craft and related trade workers	3.5	-
Plant/machine operations & assemblers	3.7	-

*Multiple logistic regression*

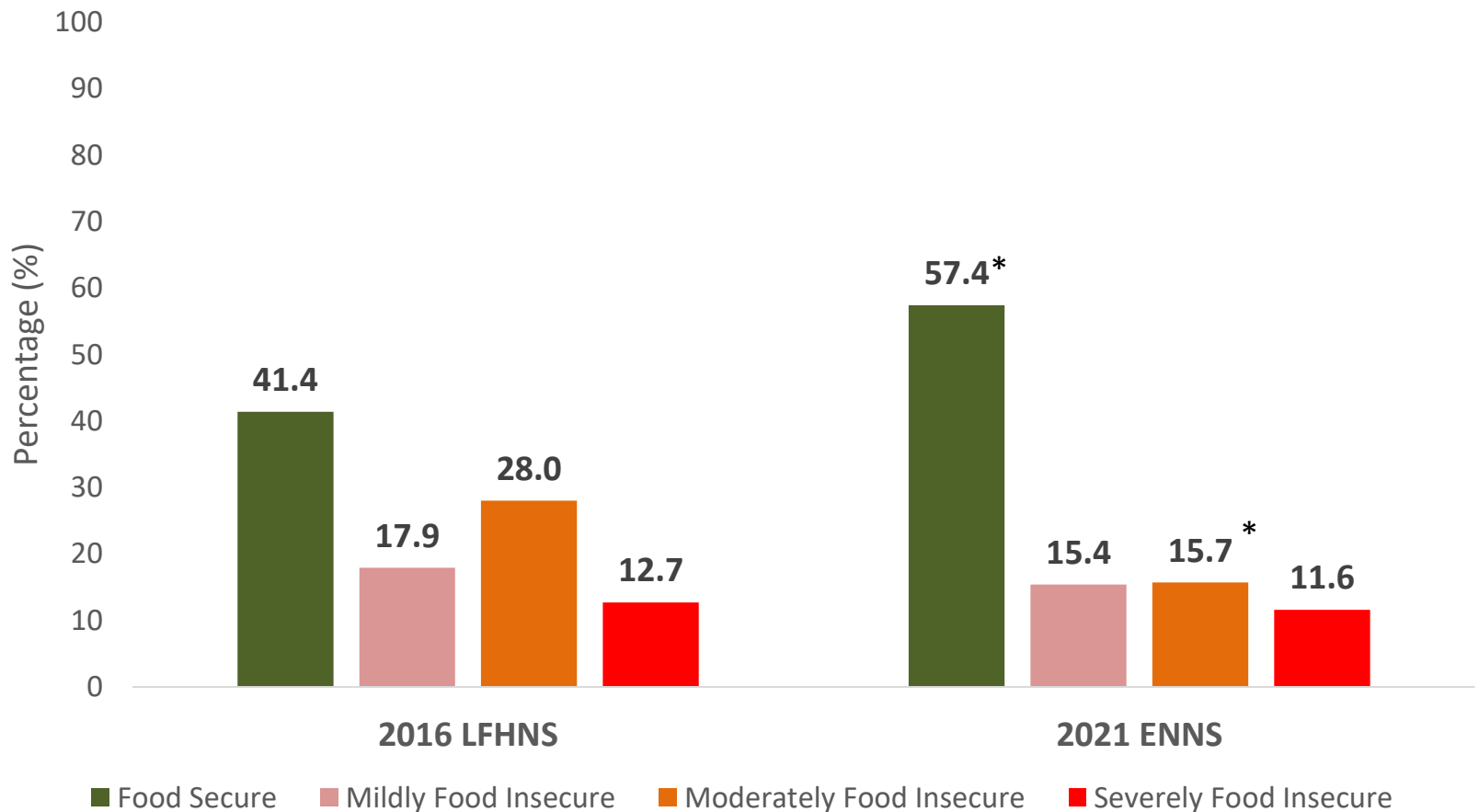
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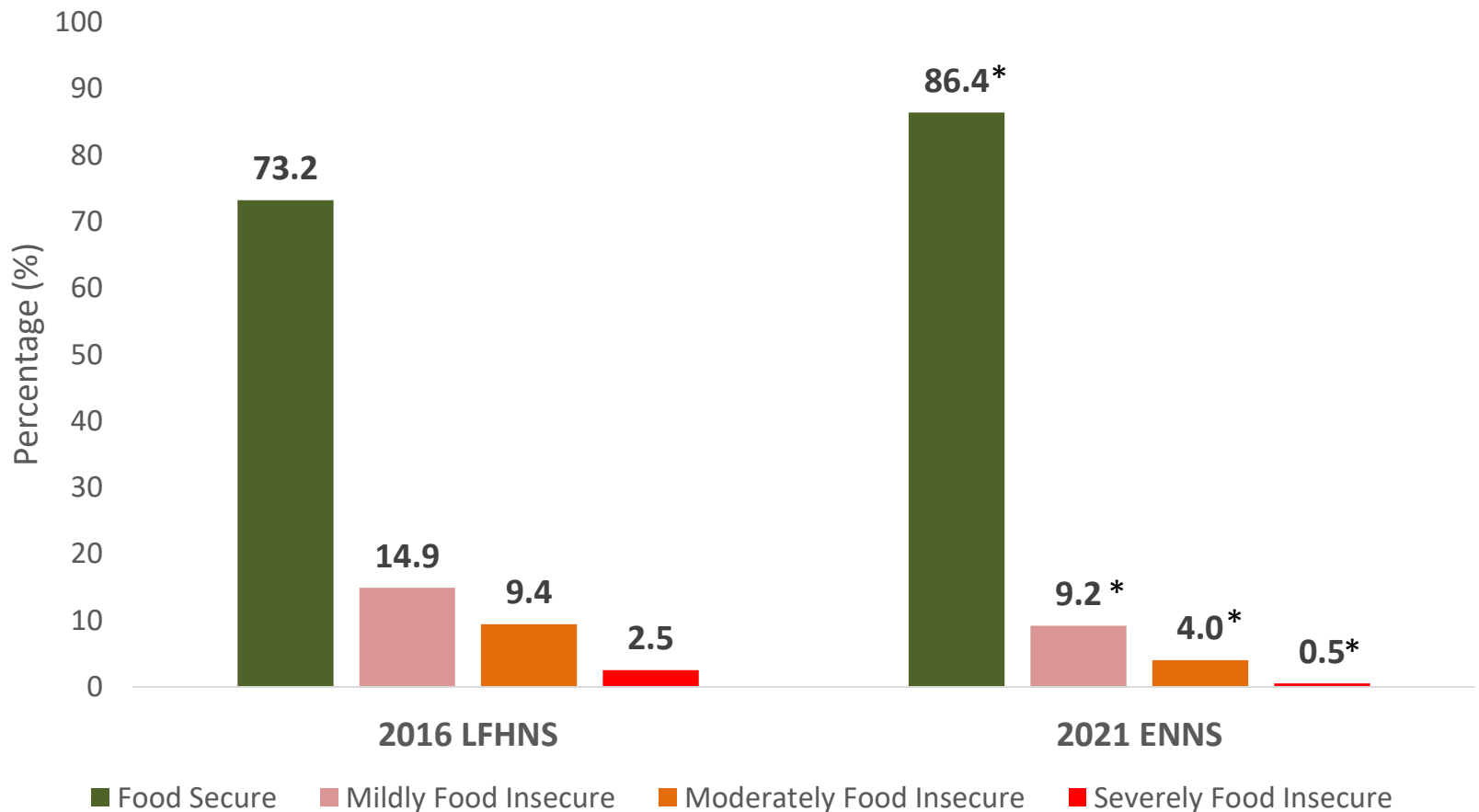
*\*\*\*Significant only for Batanes*

*Comparison variable: rich wealth status; 5 or less members; at least college; no occupation*

# Percentage of Households by Food Security Status based on HFIAS: Aurora, 2016 vs 2021

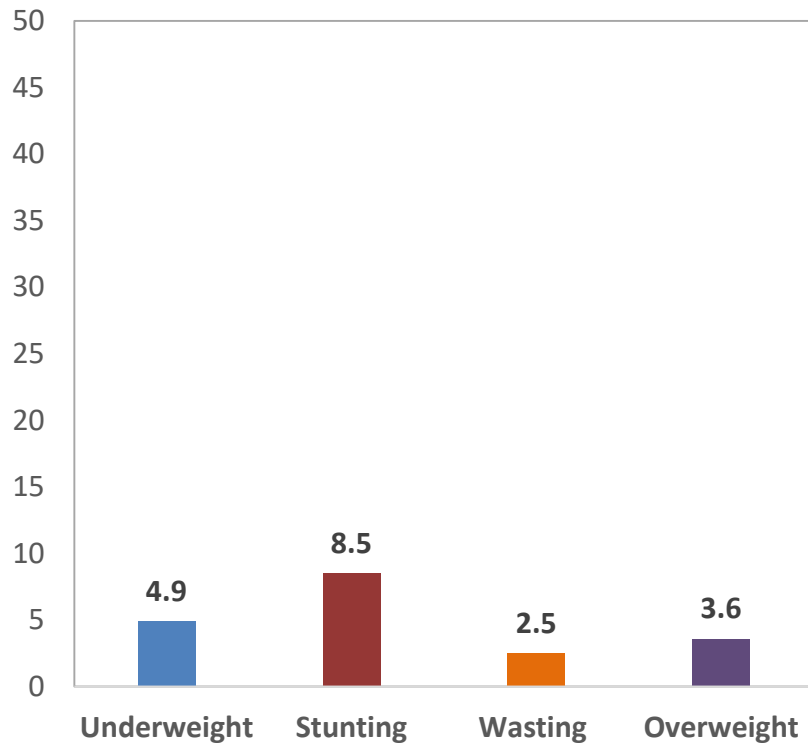


# Percentage of Households by Food Security Status based on HFIAS: Batanes, 2016 vs 2021

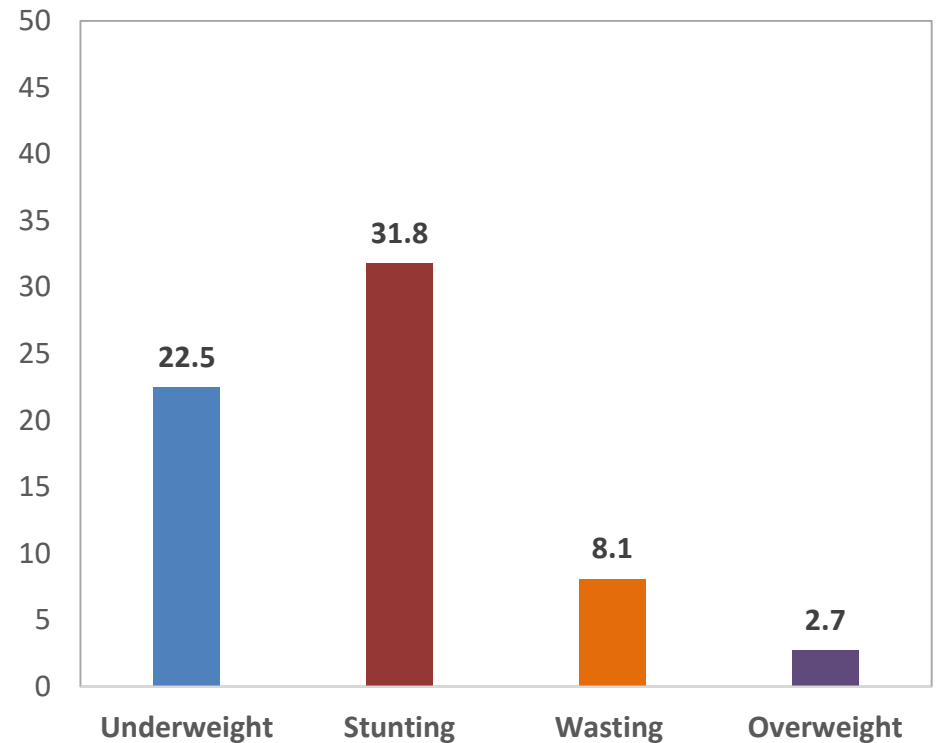


# Nutritional Status of Children, 0-59 months old: 2016 LFHNS

Batanes



Aurora



# Factors associated with **stunting among 0-59 months old** in Batanes and Aurora: 2016 LFHNS

Variable	Adjusted Odds Ratio	
	Aurora	Batanes
Age (years)**		
2-3	2.5	-
4-5	2.5	-
Household wealth		
Poor	4.8	8.0
Middle	2.7	6.5
Educational Attainment of Head***		
At least high school	-	3.3

*Multiple logistic regression*

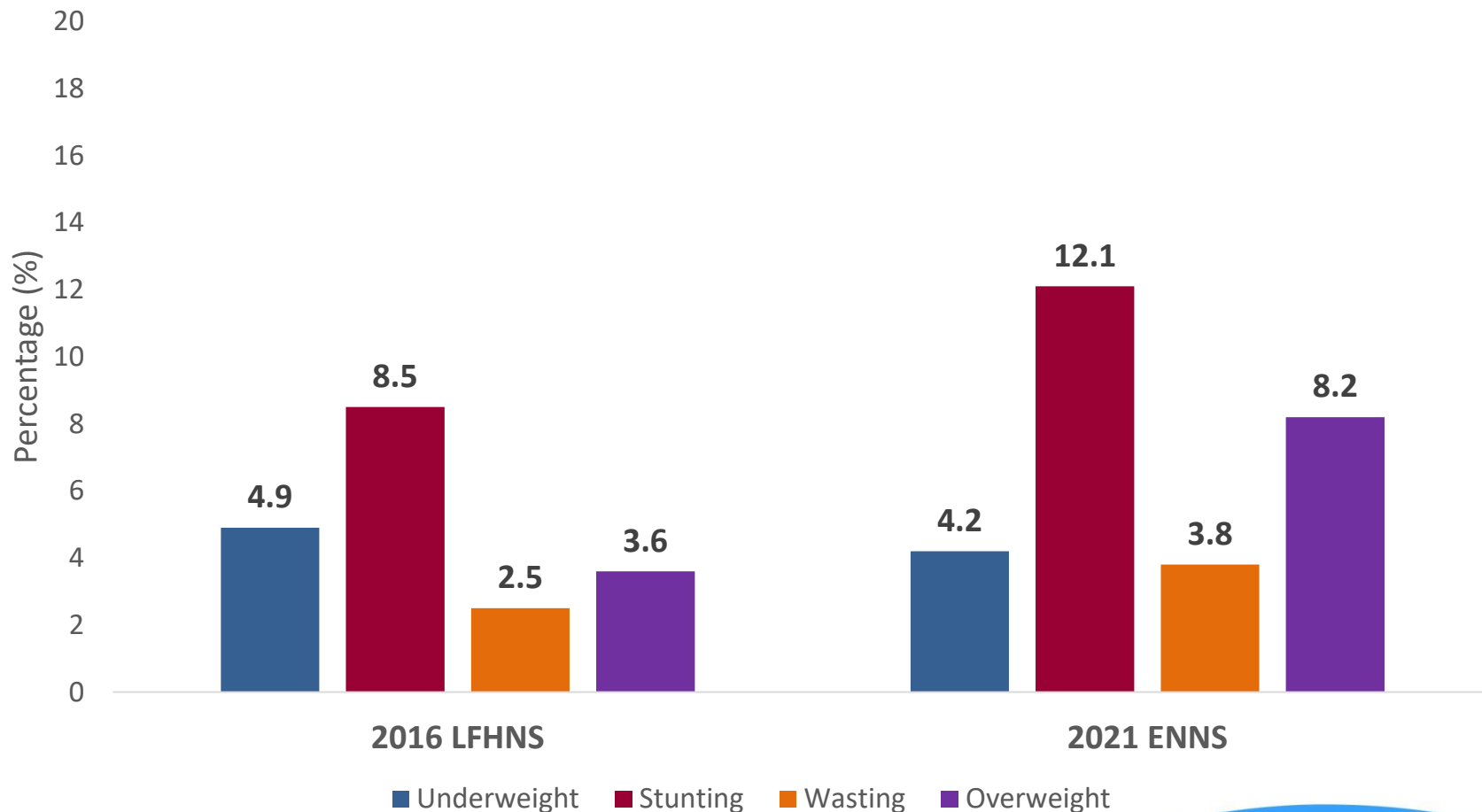
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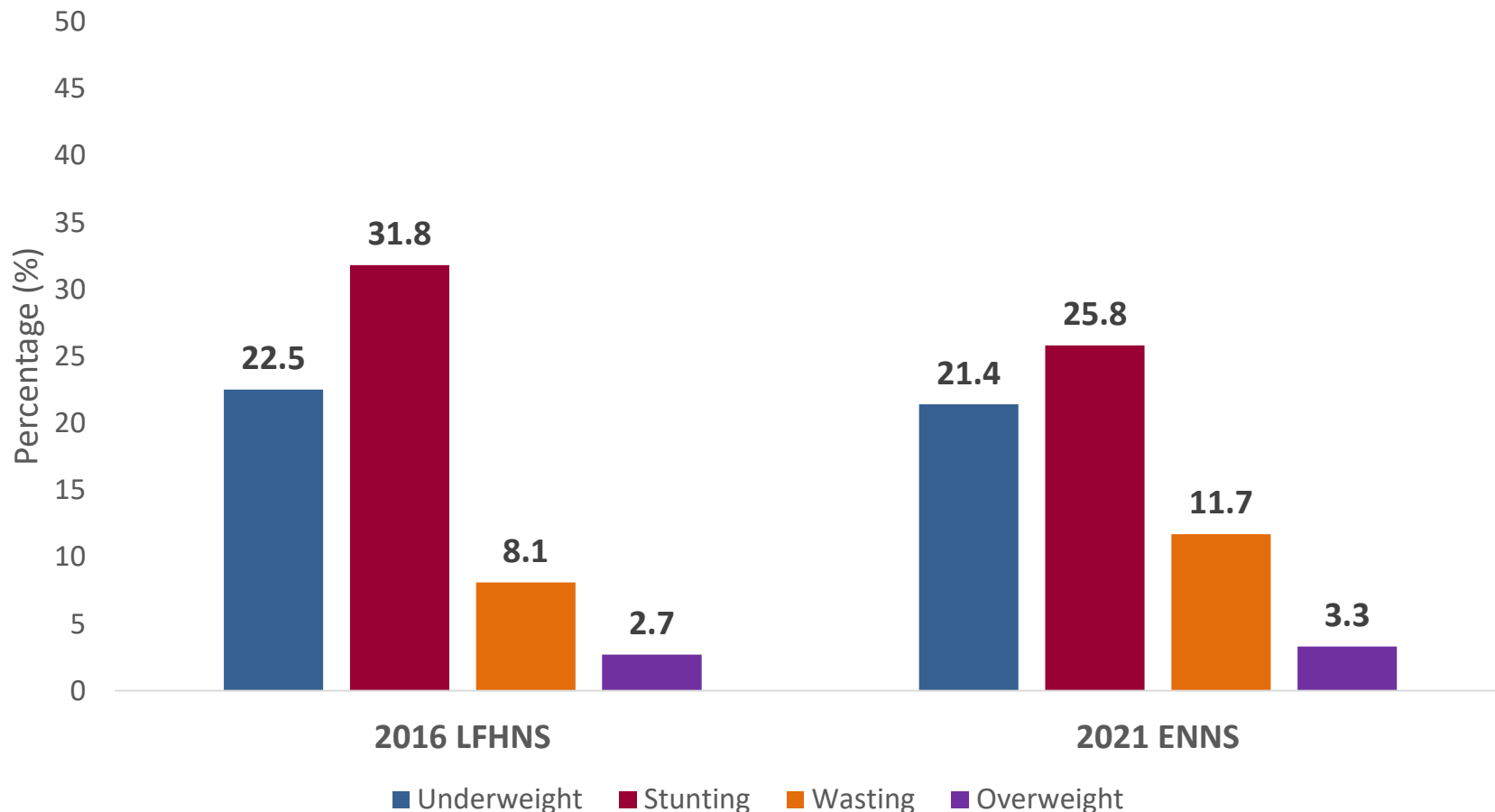
*Comparison variable:  $\leq 1$  year old; rich wealth status; at least vocational/college*

# Nutritional Status of Children, 0-59 months old: Batanes, 2016 vs 2021





# Nutritional Status of Children, 0-59 months old: Aurora, 2016 vs 2021



# Thematic results

## Theme 1: Multi-sectoral involvement, sense of community, local competitions and consistent program monitoring were considered best practices

Batanes	Aurora
<ul style="list-style-type: none"><li>▪ <i>Bayanihan</i> in different activities (wet nursing for infants; series of disaster relief operations)</li><li>▪ Milk bank, i.e. Municipality of Ivana</li><li>▪ Quarterly checking of blood pressure and fasting blood sugar for adults</li><li>▪ Creative programs (<i>Padyak para sa puso</i> every Friday; <i>Piso a day</i> to eradicate malnutrition)</li><li>▪ Malunggay planting for every households</li><li>▪ Local Competitions (Biggest loser; healthiest senior; clean and green community)</li><li>▪ Gulayan program by DA (cabbage, pechay, carrots, sili, kangkong, kamote, onion, sitaw, etc)</li><li>▪ Supplemental feeding for 0-59 months old</li><li>▪ Monitoring of iodized salt, products with Sangkap Pinoy seal and fortified products</li><li>▪ Adopt a malnourished child/household (for 90 days)</li></ul>	<ul style="list-style-type: none"><li>▪ Convergence Program (inter-sectoral program involving health, agriculture, veterinary and nutrition offices of Aurora)</li><li>▪ Functioning BNAP and BNC with quarterly meeting during the pandemic</li><li>▪ <i>Ayudang Trabaho para sa Mamamayan</i> (ATM) during the pandemic at the province</li><li>▪ Malunggay planting; Backyard gardening</li><li>▪ Supplementary feeding for 0-59 months old</li><li>▪ Local competitions (school gardening; cleanest and greenest barangay)</li><li>▪ <i>Padigo</i> (sponsor a malnourished child – cooked food is provided by the sponsor to an undernourished child until he/she achieves normal weight)</li><li>▪ Positive deviant strategy before the pandemic (normal weight-malnourished child mother-sharing)</li></ul>

Ivatans have long practiced community pantry even before it became popular in Metro Manila and the rest of the country in 2021

National Nutrition Council Region II  
7 April 2020 · 🌐

Iba pag Iwatan!  
Buhay na buhay ang bayanihan at pakikipakwa tao sa Probinsya ng Batanes sa kabila ng banta ng COVID-19.

❤️❤️❤️  
Venice Khryztine Lechuga



Ivana Milk Bank  
Ivana, Batanes



Supplementary feeding packs given to preschool children in Aurora Province



## Theme 2: Nutrition education and communication should include conventional and multi-media platforms, especially during the COVID-19 pandemic

Batanes	Aurora
<ul style="list-style-type: none"><li>▪ House-to-house visits (to educate parents of underweight children, OPT, feeding and other programs)</li><li>▪ <i>Nutriskwela Radyo Kayvayvanan</i></li><li>▪ Mothers' classes for underweight children</li><li>▪ Sex education among young women</li><li>▪ Symposium for exercise and hygiene</li><li>▪ Buntis congress for health education that includes meal planning, breastfeeding and proper nutrition</li></ul>	<ul style="list-style-type: none"><li>▪ House-to-house visits (for nutrition counselling among mothers; backyard gardening)</li><li>▪ <i>Nutriskwela</i> community radio (<i>Radyo Ka-Edup</i> in Dingalan and <i>Radyo Kawadi</i> in Casiguran)</li><li>▪ Use of social media to disseminate nutrition information like breastfeeding, nutritious recipes</li><li>▪ Need to focus on First 1,000 days</li><li>▪ Focus in coastal areas where stunting is high</li></ul>

## Theme 3: Multiple roles of local nutrition action officers and lack or minimal cooperation from local officials and mothers, low investment in nutrition remain challenges

### Batanes

- Have a nutritionist or nutrition officer dedicated for nutrition only
- Some parents feel inconvenience so there should always be incentive/token for them to participate
- Support of LGU employees are lacking e.g. not joining activities like Zumba/exercise programs
- Lack of funds from the municipality such as stipend for BNS
- Some funds (for nutrition) were re-diverted to other programs e.g. disaster response
- Vaccination program for COVID neglected other programs e.g. programs to address overweight were discontinued

### Aurora

- MHO/RHNurse/RHMidwife also serving as MNAOs and/or PopCom officer or other tasks all at the same time e.g. Due to an emergency call, MHO or midwife cannot attend nutrition activities
- Uncooperative parents/caregivers of young children
- Low investment of LGU to nutrition programs e.g. bulk of funds is allotted for nutrition month celebration and feeding program
- Walang sariling office ang nutrition (one table/desk under MHO)
- “Kaunti ang IRA ng barangay”; some brgy captains not aware that 5% of IRA is for nutrition
- Hindi priority ng LGU



## Other Comments and suggestions

### Batanes

- Bring back 1 nutritionist per municipality
- Allot a budget for nutrition in emergency
- Mental health awareness e.g. concern about suicide
- BNS and BHWs were busy with monitoring during quarantine and vaccination

### Aurora

- “Wag baguhin ang BNS pag bago ang Brgy. Captain”
- “Nagkakairingan ng workload ang BNS and BHWs”
- Acknowledge rich resources, particularly sources of food in the province, but some people neglect local foods/fruits
- EO 51 (Milk Code) not followed/monitored
- Need to review the 4Ps; not updated listing
- Other challenges:
  - refuses immunization due to religion
  - afraid of exposure, many do not participate in feeding program



# Conclusion

- Wealth status and household size were significant predictors of household food insecurity in both provinces of Aurora and Batanes.
- Other significant predictors of household food insecurity were presence of OFW member, lower educational attainment and occupation such as technicians, craft and related workers, plant/machine operators and laborers but only in Aurora while presence of child under-5 years old in Batanes.

- Wealth status was a significant predictor of stunting among children 0-59 months old for both provinces of Aurora and Batanes
- Age (older children) for Aurora and educational attainment of household head for Batanes were also significant predictors of stunting

- Multi-sectoral involvement, sense of community, local competitions, consistent program monitoring were considered best practices
- Use of both conventional and multi-media platforms for nutrition education and communication
- Multiple roles of local nutrition officers, local or minimal cooperation from officials and parents and low investment in nutrition remain challenges

# Recommendations

- Effect of the Mandanas-Garcia ruling on local government support for nutrition
- Review of the implementing rules and regulation of the Nutrition and Dietetics Law of the Philippines



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THANK YOU