

food security

[foodsi-kyoor-i-tee]

Noun

an economic and social condition of ready access by all members of a household to nutritionally adequate and safe food: *a household with high food security.*

By...

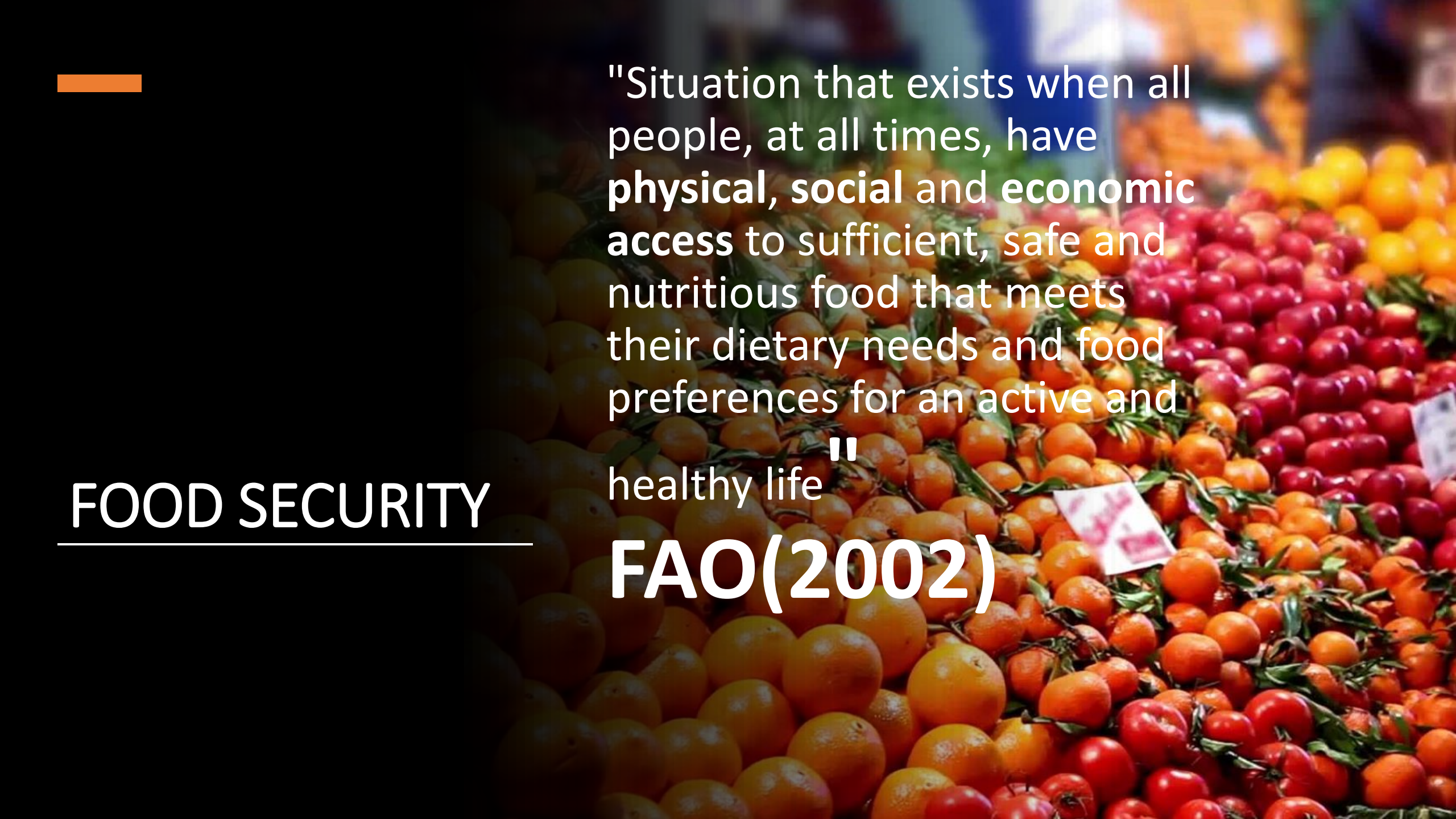
Khairil Anuar Md Isa.

Hypothetical Scenario

- **Elly**
 - **Living in large city**
 - **Working**
 - **Have a minimum pay**
 - **Living on day-to-day basis**
 - **Worried about future food**
 - **Sometime skipped meals as not enough money at the end of month**
 - **Eat instant noodles most of the time**
 - **Take small portion of vegetables and fish/meat**
 - **Eat mostly rice**



What is food security?

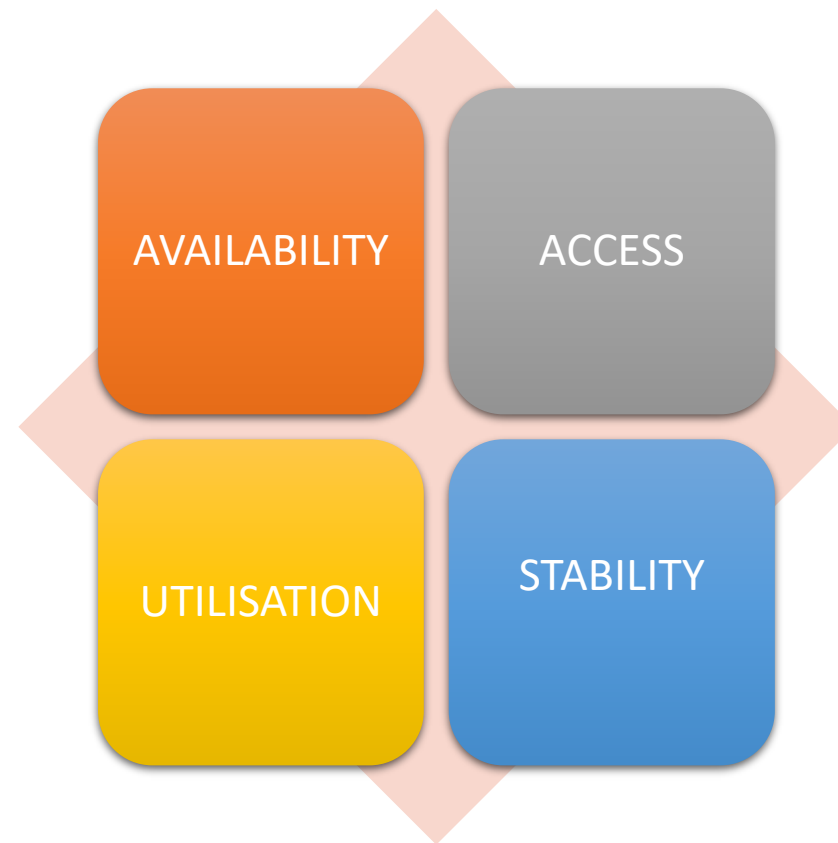


"Situation that exists when all people, at all times, have **physical, social and economic access** to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life"

FOOD SECURITY

FAO(2002)

Food security "COMPONENTS"



So how about food insecurity?

- "Food insecurity occur when **ACCESS** to or **AVAILABILITY** of safe, **CULTURALLY** appropriate and nutritious food is compromised, or when these foods cannot be obtained via **SOCIALLY ACCEPTABLE MEANS**".
- Common core dimension of food insecurity
 - Quantitative dimension
 - Qualitative dimension
 - Psychological dimension
 - Social dimension

Consequences of food insecurity

Current Atherosclerosis Reports (2021) 23: 24
<https://doi.org/10.1007/s11883-021-00923-6>

NUTRITION (K. PETERSEN, SECTION EDITOR)



Food Insecurity and Cardiovascular Disease Risk

Yibin Liu¹ · Heather A. Eicher-Miller²

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J Community Health (2012) 37:253–264
DOI 10.1007/s10900-011-9420-4

REVIEW

Exploring Mediators of Food Insecurity and Obesity: A Review of Recent Literature

Brandi Franklin · Ashley Jones · Dejuan Love ·
Stephane Puckett · Justin Macklin ·
Shelley White-Means

Soc Psychiatry Psychiatr Epidemiol
DOI 10.1007/s00127-015-1018-1

ORIGINAL PAPER

Association of moderate and severe food insecurity with suicidal ideation in adults: national survey data from three Canadian provinces

Karen M. Davison · Gillian L. Marshall-Fabien ·
Angela Tecson

Article

No food for thought: Food insecurity is related to poor mental health and lower academic performance among students in California's public university system

Suzanna M Martinez¹ , Edward A Frongillo²,
Cindy Leung³ and Lorrene Ritchie¹

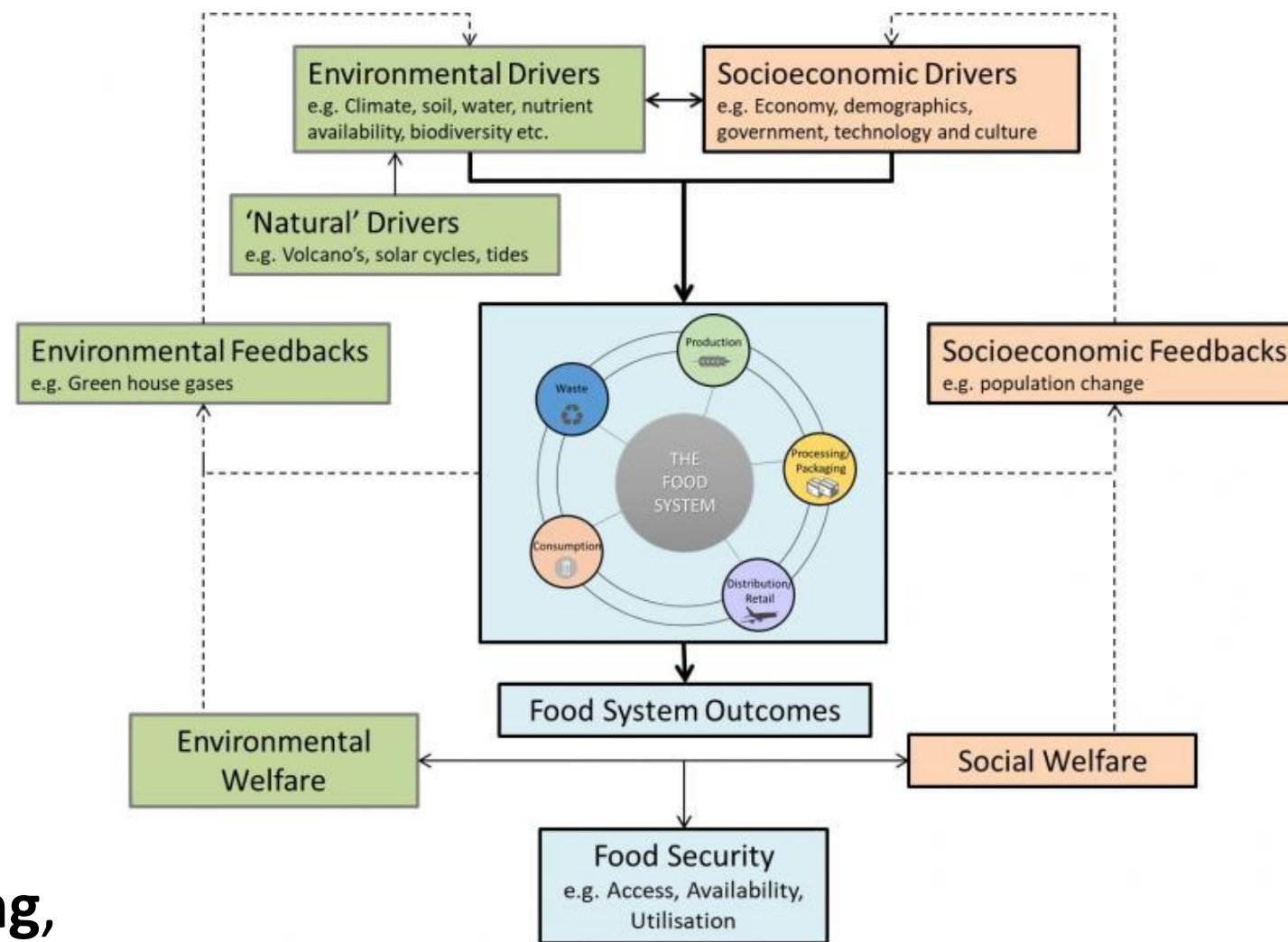


Journal of Health Psychology
1–10
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DOI: 10.1177/1359105318783028
journals.sagepub.com/home/hpq



What is the relationship between food security and food system?

"The food system is a complex web of activities involving the **production, processing, transport, and consumption.**"



The food system and its drivers. Adapted from Ericksen 2008



Food security measurement

Health Scope

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RESEARCH ARTICLE

Exploratory factor analysis on Food Insecurity Experience Scale (FIES): latest food insecurity measurement tool by FAO

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REGIONAL

Months inadequate household food provisioning

NATIONAL

Domestic food price volatility

GFSI

FEWS NET

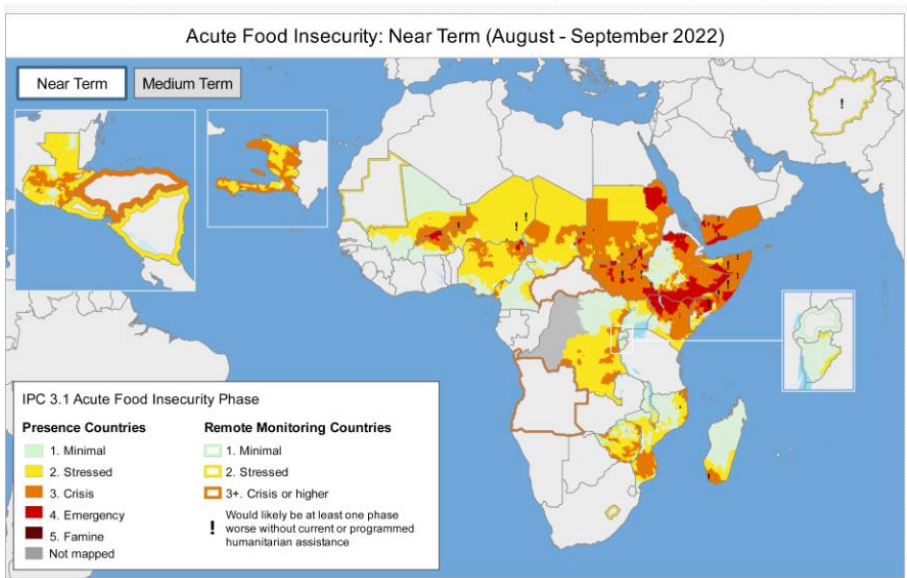
HOUSEHOLD

HFIAS

FEIS

INDIVIDUAL

Antropometry



Areas of Highest Concern

Country or Region	Reason for Concern	Observations
NORTHERN ETHIOPIA	Since November 2020, conflict and insecurity in northern Ethiopia have driven large-scale displacement, significantly disrupted poor households' engagement in livelihood activities, and limited humanitarian access, with the impacts most stark in Tigray.	Despite humanitarian resources reaching Tigray, food aid distributions are still not sufficient to meet the need with only 27 percent of the 6.3 million people caseload between mid-October and May 18.





The FIES Survey Module

The FIES-SM questions refer to the experiences of the individual respondent or of the respondent's household as a whole. The questions focus on self-reported food-related behaviors and experiences associated with increasing difficulties in accessing food due to resource constraints.

During the last 12 months, was there a time when, because of lack of money or other resources:

1. You were worried you would not have enough food to eat?
2. You were unable to eat healthy and nutritious food?
3. You ate only a few kinds of foods?
4. You had to skip a meal?
5. You ate less than you thought you should?
6. Your household ran out of food?
7. You were hungry but did not eat?
8. You went without eating for a whole day?

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You ate less than
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Your household
ran out of food?

You went without
eating for a whole
day?

Food insecurity situation in Malaysia

Malaysian Journal of Public Health Medicine 2020, Vol. 20 (1): 167-174

ORIGINAL ARTICLE

FOOD INSECURITY SITUATION IN MALAYSIA: FINDINGS FROM MALAYSIAN ADULT NUTRITION SURVEY (MANS) 2014

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ABSTRACT

Food insecurity affects food intake, and it could prevent an individual from consuming enough nutritious food to support and maintain health. The aim of this paper is to determine the prevalence and factors influencing food insecurity among Malaysian households. In 2014, the Malaysian Adult Nutrition Survey (MANS) was carried out, and one of the components measured was food insecurity. Six out of sixteen questions from the food security core-module questionnaire were adopted and answered by 2962 adults. The results showed that about 25.0% adult experienced food quantity insufficiency, 25.5% had food variety insufficiency, 21.9% practised reduced size of the meal, and 15.2% skipped main meal due to lack of money to spend on. For the parents, 23.7% only rely on cheap food to feed children, and 20.8% could not afford to purchase various foods to feed their children. Location, strata, race, level of education, working status and household income shows significant difference while none of the nutritional status components found to be difference in all six parameters of food insecurity measured. Logistic regression with adjusted odds ratios discovered race, education level and household income were related to risk to all six parameters of food insecurity. In conclusion, food insecurity can be a serious problem in Malaysia. An effective and comprehensive effort by the government in terms of policy solution is required to increase education level and ensure an adequate income for every household. Therefore, future research should focus on some of those promising policy solutions and at the same time, study the other possible underlying factors that may lead to food insecurity.

Keywords: Food Insecurity, Malaysia, Adult, Nutrition Survey

N=2962.

Questionnaire: 6 items from the food security core module questionnaires

25.0% adult experienced **food quantity insufficiency**

21.9% practiced **reduced size of meal**

15.2% skipped main meal due to lack of money to spend on

High risk groups of people getting food insecurity in Malaysia

- Orang Asli (Food insecurity prevalence: **81.2%-88.0%**)
- Adolescents/adults/low-income households/welfare-recipient households (Food insecurity prevalence: **47.2%-100.0%**)
- University students (Food insecurity prevalence: **22.0%-70.0%**)
- Elderly population (Food insecurity prevalence: **6.9%-27.7%**)
- Migrant workers (Food insecurity prevalence: **5.6%**)

Household food insecurity, diet quality, and weight status among indigenous women (Mah Meri) in Peninsular Malaysia

Chong Su Pei, Geeta Appannah and Norhasmah Sulaiman[§]

Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia, Serdang, 43400 Selangor, Malaysia

BACKGROUND/OBJECTIVES: This cross-sectional study assessed household food security status and determined its association with diet quality and weight status among indigenous women from the Mah Meri tribe in Peninsular Malaysia.

SUBJECTS/METHODS: The Radimer/Cornell Hunger and Food Insecurity Instrument and the Malaysian Healthy Eating Index (HEI) were used to assess household food security status and diet quality, respectively. Information on socio-demographic characteristics and 24-hour dietary recall data were collected through face-to-face interview, and anthropometric measurements including weight, height, and body mass index (BMI) were obtained from 222 women.

RESULTS: Majority of households (82.9%) experienced different levels of food insecurity: 29.3% household food insecurity, 23.4% individual food insecurity, and 30.2% fell into the child hunger group. The food-secure group had significantly fewer children and smaller household sizes than the food-insecure groups ($P < 0.05$). The mean household income, income per capita, and food expenditure significantly decreased as food insecurity worsened ($P < 0.001$). The food-secure group had significantly higher Malaysian HEI scores for grains and cereals ($P < 0.01$), as well as for meat, poultry, and eggs ($P < 0.001$), than the food-insecure

Original Article

Food insecurity and the metabolic syndrome among women from low income communities in Malaysia

Zalilah Mohd Shariff PhD¹, Norhasmah Sulaiman PhD², Rohana Abdul Jalil PhD³,
Wong Chee Yen MSc¹, Yong Heng Yaw MSc¹, Mohd Nasir Mohd Taib PhD¹,
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Food security status: It's association with inflammatory marker and lipid profile among young adult

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Malaysia and UAE boost cooperation in food security



NATION

Wednesday, 31 Aug 2022

KUALA LUMPUR: Malaysia and the United Arab Emirates (UAE) are ready to further strengthen food security diplomacy cooperation between the two countries, said the Ministry of Agriculture and Food Industries (Mafi).

"For the record, the total value of agricultural trade between the two countries rose from RM1.14bil in 2020 to RM1.51bil in 2021," Mafi said in a statement.



**Some initiatives to
combat food
insecurity...some
insight from
developed
countries**

Social protection policies

- SNAP
- Food Banks
- Community food programs
- Program to meet day to day hunger
- Income transfer

Welfare policies

- Food related
- Non-food (Social program)related
 - Low-income families
 - Disabled people


Some example of initiatives done in Malaysia

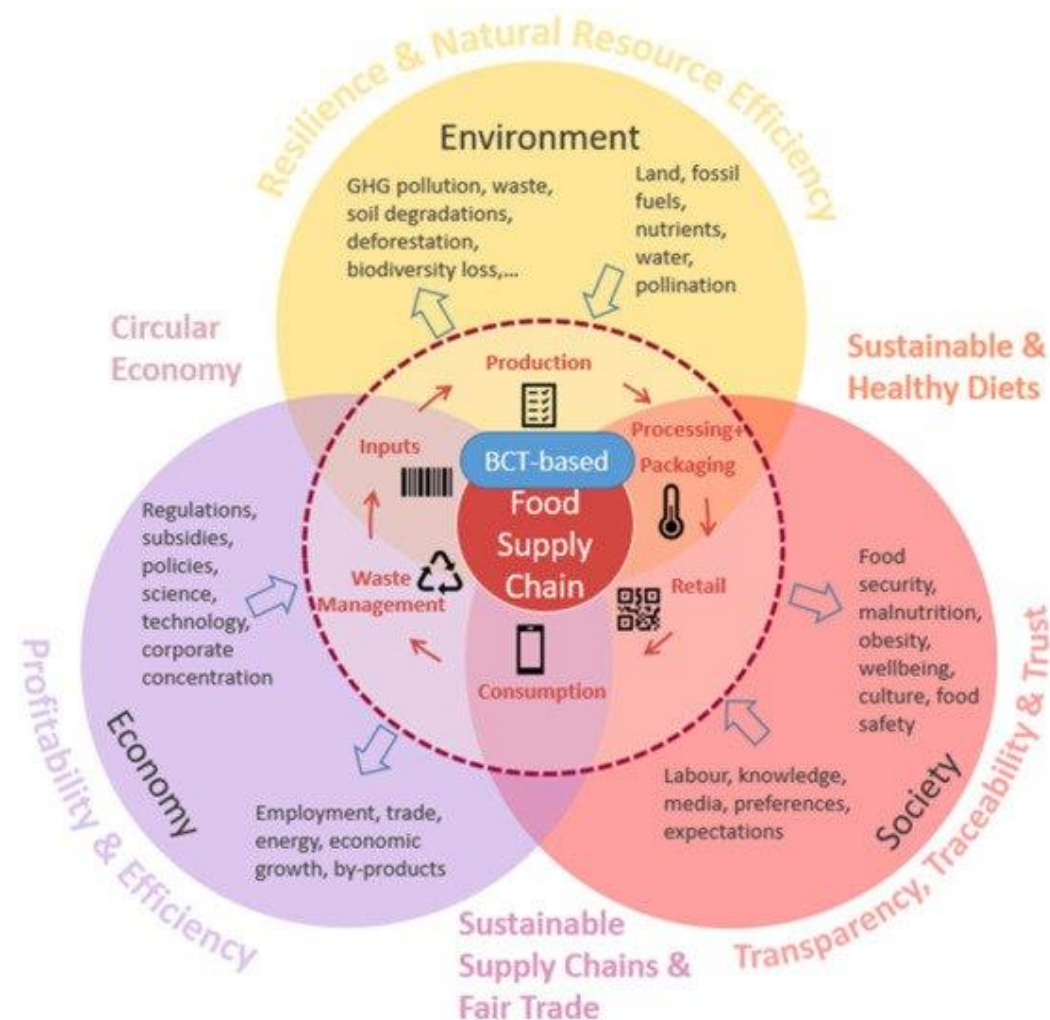
- Several ministries involved
- Ministry of Health, Ministry of Education and Ministry of Rural Development
- Pregnant mother are given micronutrient supplement containing iron, folic acid, and B vitamin during antenatal check-up.
- Full cream milk powder is also distributed to underweight children aged 6 months to 7 years, pregnant women who have not gained adequate weight, and low-income lactating mother.
- A rehabilitation program under the Prime Minister Department has been implemented since 1989 as part of poverty eradication program. They entitled to receive food aid in the form of food basket worth 20-25 USD each.
- "Bantuan rakyat" for several subgroups of Malaysian societies.

What data scientist communities can do about it?

Article

The Potential of Blockchain Technology in the Transition towards Sustainable Food Systems

Julia Francesca Wünsche * and Fredrik Fernqvist 





Thank you...

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