

What is South Asia Eating?

Results from the Global Diet Quality Project



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Motivation: Diet data for informed decision-making

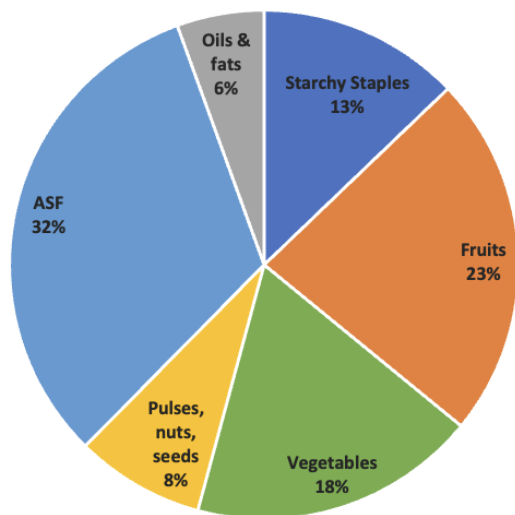
- Diet is a critical public health risk
 - Undernutrition
 - Hidden hunger
 - Diet-related NCDs
- Most countries, including in South Asia, have had no recent, nationally representative dietary intake surveys
- Collecting dietary data typically requires high costs, time, expertise, analysis
- Yet without diet data, difficult to see the problem clearly.



Access to Healthy Diets in South Asia is low

- An estimated 70% of people in South Asia cannot afford a healthy diet
- A healthy diet costs >4x the minimum cost of meeting energy needs only

Cost of a Healthy Diet in South Asia (\$3.39 PPP)



Source: Food Prices for Nutrition DataHub www.worldbank.org/en/programs/icp/brief/foodpricesfornutrition, Herforth et al. 2022

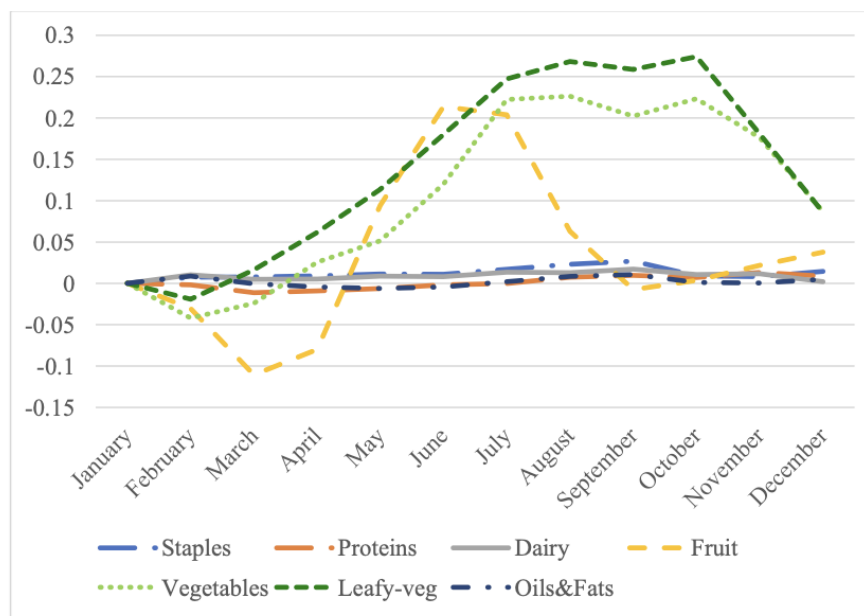
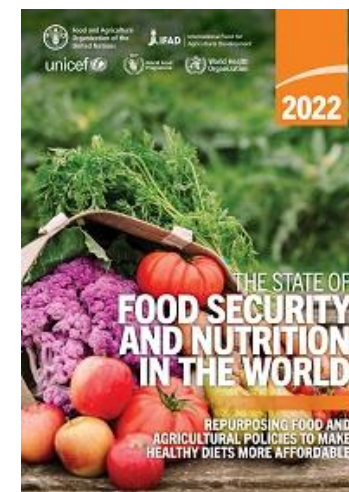


Figure A.3: Seasonality in log of food prices by food group, over months of the year

Source: Raghunathan, Headey, and Herforth, 2021. Affordability of Nutritious Diets in Rural India. Food Policy 99.



AIM OF
GLOBAL
DIET
QUALITY
PROJECT

Enabling **diet quality monitoring** through the collection of data using a standardized tool (DQQ) that produces a suite of diet quality indicators comparable across time and geographies.

standard
tool

suite of
indicators

data across
countries

For more details, visit: www.dietquality.org

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Diet Quality Questionnaire (DQQ) was developed as a tool to rapidly assess diet quality at population level.

DIET QUALITY QUESTIONNAIRE (DQQ)



INDIA

Read: Now I'd like to ask you some yes-or-no questions about foods and drinks that you consumed yesterday during the day or night, whether you had it at home or somewhere else.

First, I would like you to think about yesterday, from the time you woke up through the night. Think to yourself about the first thing you ate or drank after you woke up in the morning ... Think about where you were when you had any food or drink in the middle of the day ... Think about where you were when you had any evening meal ... and any food or drink you may have had in the evening or late-night... and any other snacks or drinks you may have had between meals throughout the day or night.

I am interested in whether you had the food items I will mention even if they were combined with other foods.

Please listen to the list of foods and drinks, and if you ate or drank ANY ONE OF THEM, say yes.

| | Yesterday, did you eat any of the following foods: | (circle answer) |
|------|--|-----------------|
| 1 | Rice, idli, dosa, poha, naan, kulcha, paratha, or upma? | YES or NO |
| 2.1 | Chapati, roti, dalia, or roasted maize? | YES or NO |
| 2.2 | Pearl millet or finger millet? | YES or NO |
| 3 | Potato, sweet potato, turnip, arum root, tapioca, or raw banana? | YES or NO |
| 4 | Daal, sambar, chickpeas, kidney beans, soya, or khichdi? | YES or NO |
| | Yesterday, did you eat any of the following vegetables: | |
| 5 | Carrots, or pumpkin that is orange inside? | YES or NO |
| 6.1 | Mustard leaves, spinach, radish leaves, cassava leaves, taro leaves, drumstick leaves, amaranth leaves, or wild greens/other greens? | YES or NO |
| 7.1 | Tomatoes, eggplant, okra/lady finger, French beans, cauliflower, cabbage, or beetroot? | YES or NO |
| 7.2 | Bitter gourd, bottle gourd, pointed gourd, ivy gourd, apple gourd, ridged gourd, or snake gourd? | YES or NO |
| 7.3 | Cucumber, radish, capsicum, German turnip, or drumstick? | YES or NO |
| | Yesterday, did you eat any of the following fruits: | |
| 8 | Papaya, mango, orange musk melon, or apricots? | YES or NO |
| 9 | Orange, tangerine, or grapefruit? | YES or NO |
| 10.1 | Ripe banana, apple, pear, watermelon, guava, custard apple, pomegranate, or pineapple? | YES or NO |
| 10.2 | Grapes, kiwi, peaches, jackfruit, chickoo, jamun, palmyra palm fruit, or other wild fruits? | YES or NO |
| | Yesterday, did you eat any of the following sweets: | |
| 11 | Cakes, cream biscuits, biscuits, suji halwa / kesari bath, jalebi, or laddoo? | YES or NO |
| 12 | Other mithai, rice pudding, kulfi, ice cream, milkshake, toffees, or chocolates? | YES or NO |
| | Yesterday, did you eat any of the following foods of animal origin: | |
| 13 | Eggs? | YES or NO |
| 14 | Paneer or cheese? | YES or NO |
| 15 | Curd, lassi, buttermilk, or raita? | YES or NO |
| 16 | Sausages or salami? | YES or NO |
| 17 | Mutton, beef, lamb, or liver? | YES or NO |
| 18 | Pork or wild meat? | YES or NO |
| 19 | Chicken, duck, or turkey? | YES or NO |
| 20 | Fish, prawn, crab, or seafood? | YES or NO |
| | Yesterday, did you eat any of the following other foods: | |
| 21 | Peanuts, cashews, almonds, pistachios, walnuts, pumpkin seeds, or sunflower seeds? | YES or NO |
| 22 | Potato chips, namkeen or mixture? | YES or NO |
| 23 | Instant noodles such as Maggi noodles or Wai Wai? | YES or NO |
| 24 | Samosa, pakora, puri, vada, mathri, kachori, murukku, or bonda? | YES or NO |
| | Yesterday, did you have any of the following beverages: | |
| 25 | Milk, flavoured milk, chai with milk, or coffee with milk? | YES or NO |
| 26 | Tea with sugar, coffee with sugar, milk with sugar, flavoured milk, Bournevita, Horlicks, or Boost? | YES or NO |
| 27 | Fruit juice, packet juice such as Rasna or Frooti, sugarcane juice, or nannari sarbath? | YES or NO |
| 28 | Soft drinks such as Sprite, Pepsi, Mirinda, or energy drinks? | YES or NO |
| | Yesterday, did you get food from any place like... | |
| 29 | McDonald's, KFC, Pizza Hut, Domino's, Burger King, or other places that serve pizza or burgers? | YES or NO |

DQQ approach:

“Yes or No” questions about foods consumed in the previous day.

29 universal food groups, country-adapted items

Read aloud the same way each time in person or by phone

Takes 5 minutes to administer

29 food groups

PLANT FOODS

- Foods made from grains
 - Whole grains
 - White roots/tubers
- Legumes
- Nuts and seeds
- Vitamin A-rich orange vegetables
- Dark green leafy vegetables
- Other vegetables
- Vitamin A-rich fruits
- Citrus
- Other fruits

ANIMAL-SOURCE FOODS

- Eggs
- Fluid milk
- Cheese
- Yogurt
- Processed meats
- Unprocessed red meat (ruminants)
- Unprocessed red meat (non-ruminant)
- Poultry
- Fish and seafood

FOODS TO LIMIT

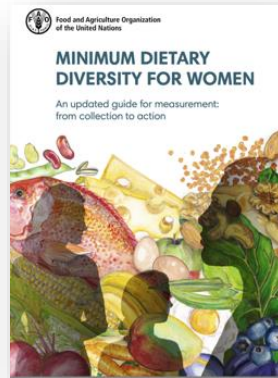
- Baked sweets
- Other sweets
- Sodas, energy drinks, sports drinks
- Fruit juice and fruit-flavored drinks
- Sweet tea/coffee/cocoa
- Packaged ultra-processed salty snacks
- Instant noodles
- Deep fried foods
- Fast food

A description of the food groups is available at www.dietquality.org/dqq



Core indicators

Dietary adequacy



- Nutrient Adequacy
 - **MDD-W**
- Food group adequacy
 - **All-5**

Legumes, nuts & seeds



Starchy staples



Fruits



Vegetables



Animal-source foods

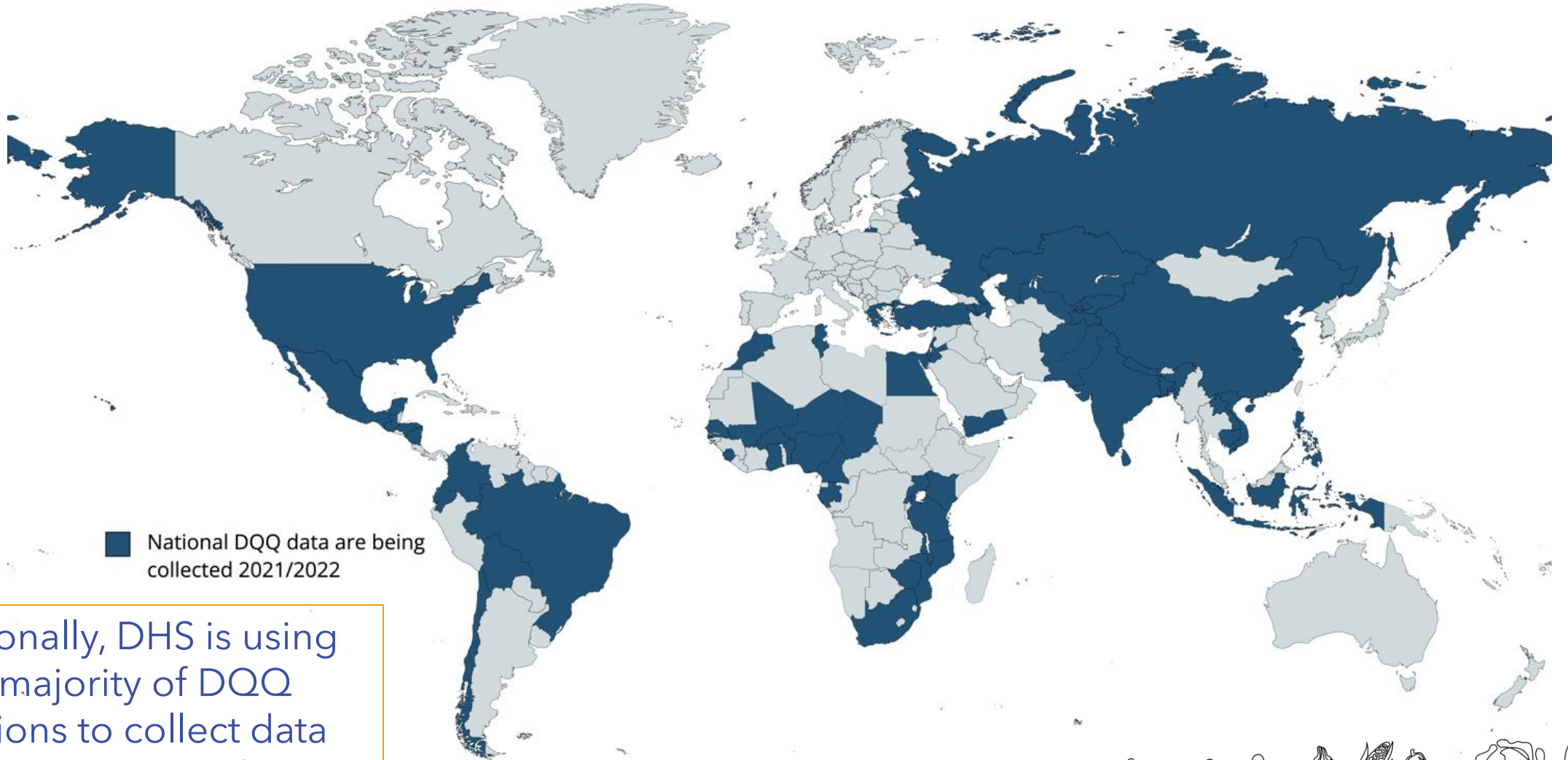


Protection against NCDs

- Health-protective components of the diet
 - **NCD-Protect**
 - Abundant fruits & vegetables, whole grains, pulses, nuts and seeds, fiber
- Dietary risk factors for NCDs
 - **NCD-Risk**
 - Excess sugar, salt, total and saturated fat, red and processed meat



Current data collection in the Gallup World Poll



■ National DQQ data are being collected 2021/2022

Additionally, DHS is using the majority of DQQ questions to collect data among women and IYC



Data collection in Gallup World Poll

Nationally-representative samples of 1,000 respondents (3,000 respondents in India) age 15 and older, women and men

| Countries | Jul 2021-Mar 2022 | Mode | 17 Languages |
|------------|-------------------|--------------|--|
| Bangladesh | Feb-Mar 2022 | F2F | Bangla |
| India* | Jul-Oct 2021 | F2F | Assamese, Bengali, English, Gujarati, Hindi, Kannada, Malayalam, Marathi, Odia, Punjabi, Tamil, Telugu |
| Nepal | Sept-Nov 2021 | F2F | Nepali |
| Pakistan** | Oct-Dec 2021 | F2F | Urdu |
| Sri Lanka | Nov-Dec 2021 | Mobile phone | Sinhala, Tamil |

*Excluded population living in Northeast states and remote islands, and Jammu and Kashmir. The excluded areas represent less than 10% of the population.

**Azad Jammu and Kashmir and Gilgit-Baltistan were excluded. The excluded area represents approximately 5% of the population.

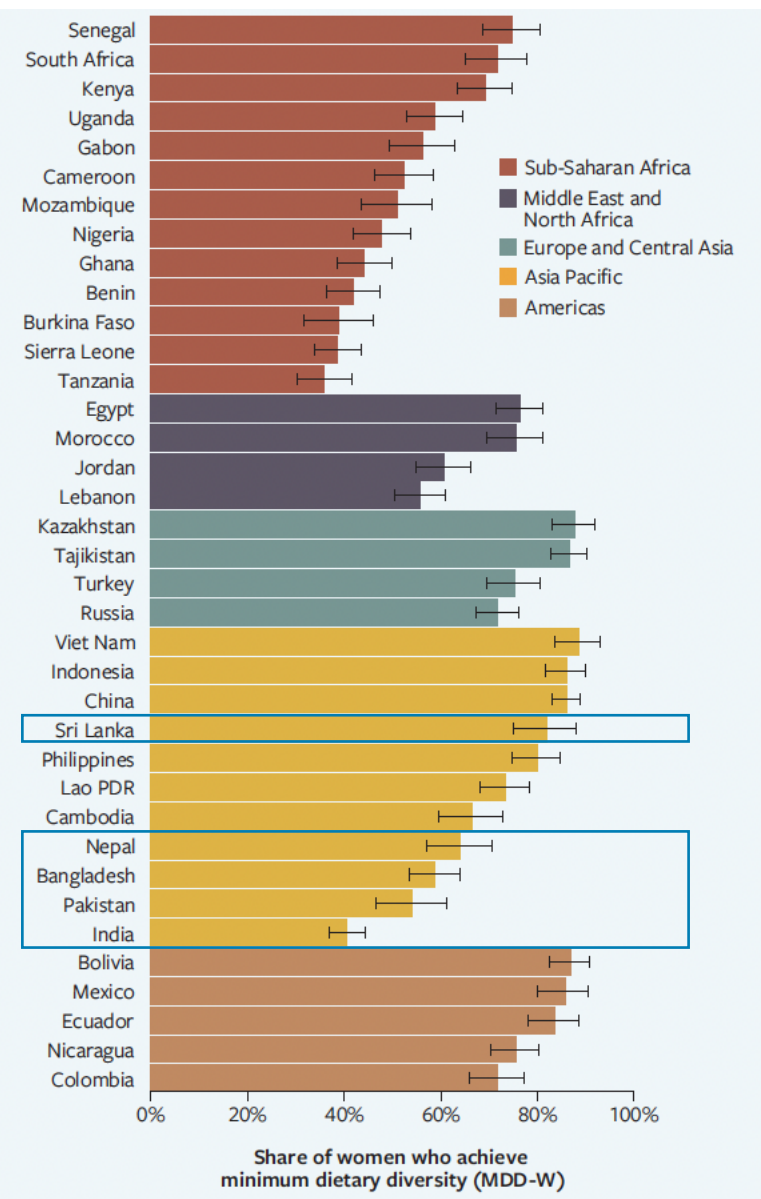
Approved by IRB, received necessary government approvals / permission

Most common food groups in South Asia

| Food groups consumed by >50% of the population | IN | BD | PK | NP | SL |
|--|----|----|----|----|----|
| Staple grains (e.g. white rice) | IN | BD | PK | NP | LK |
| Pulses (e.g. dal) | IN | BD | | NP | LK |
| Sweetened tea/coffee AND fluid milk | IN | | PK | NP | LK |
| Other vegetables (e.g. tomato, gourds, eggplant) | IN | BD | PK | | LK |
| White roots/tubers (e.g. potato) | IN | BD | | NP | |
| Whole grains (e.g. chapati, roti) | IN | | PK | NP | |
| Any fruit | | | PK | NP | LK |
| Fish or seafood | | BD | | | LK |
| Sweets | | BD | | | LK |

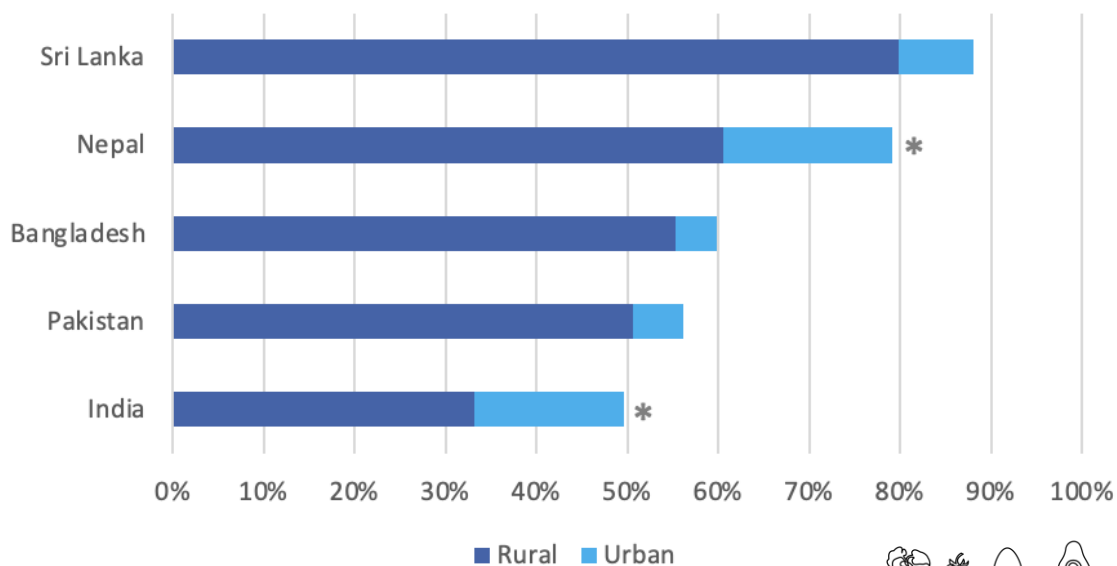


Minimum Dietary Diversity- Women (MDD-W)



- Less than half of women are consuming MDD-W in India
 - Significantly lower than the rest of the region
- Most women in Sri Lanka are consuming MDD-W
 - Significantly higher than the rest of the region

% of women age 15-49 consuming MDD-W in South Asia, 2021

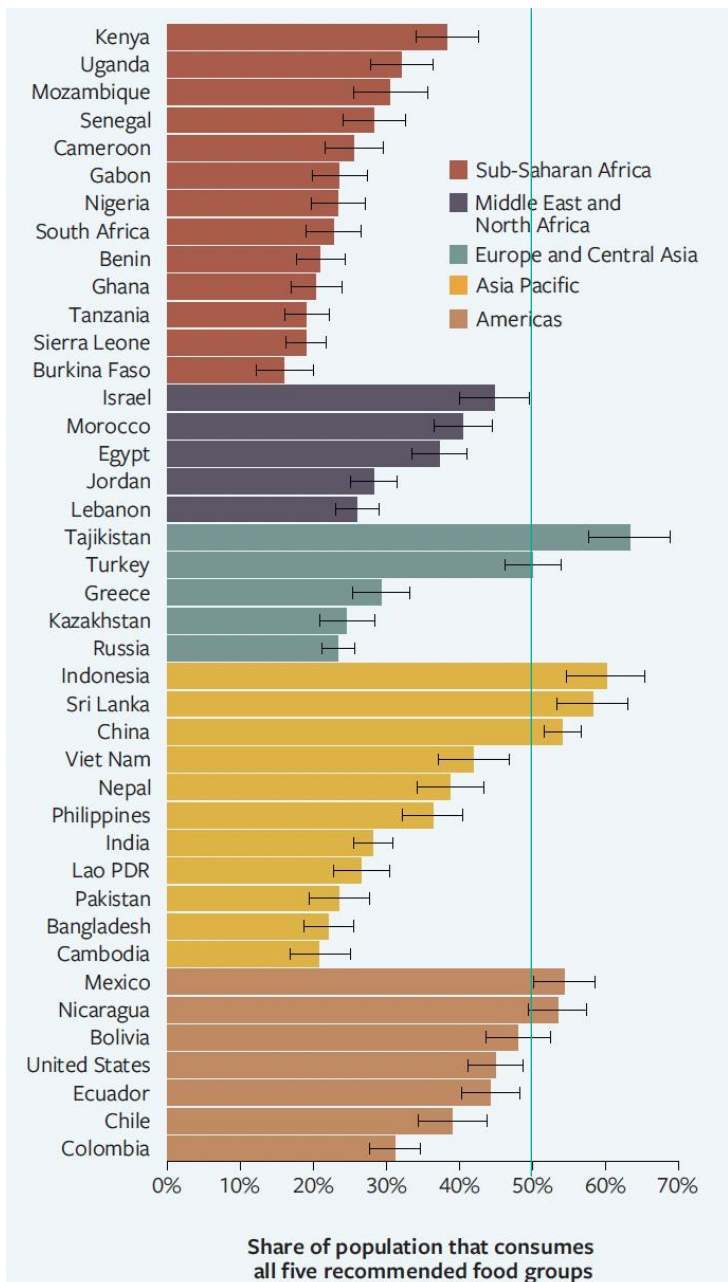


Country-adapted DQQ addresses issues of standardization and capacity to scale up measurement

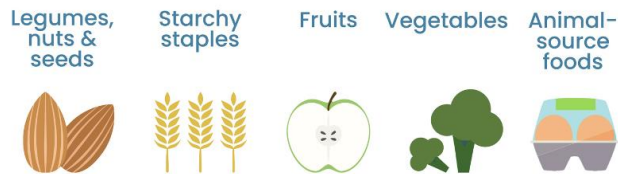
- partnered with DHS

*significant rural/urban difference



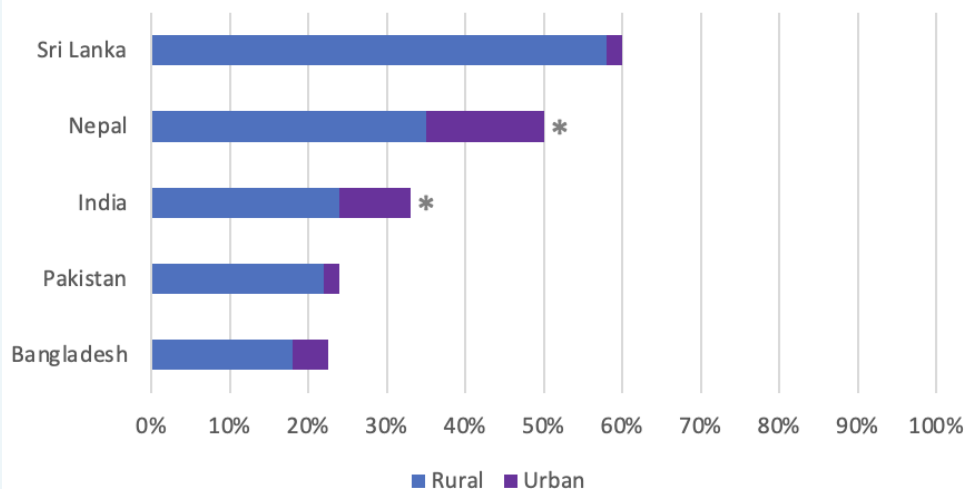


All-5



- Most people are not eating diets that would even minimally follow FBDGs.
 - If no amount consumed, definitely did not meet recommended amount.
- 1.3 billion people in South Asia cannot afford a healthy diet (FAO 2022)
 - ...and 1.3 billion are not consuming All-5!

% of adults 15+ consuming All-5 in South Asia, 2021



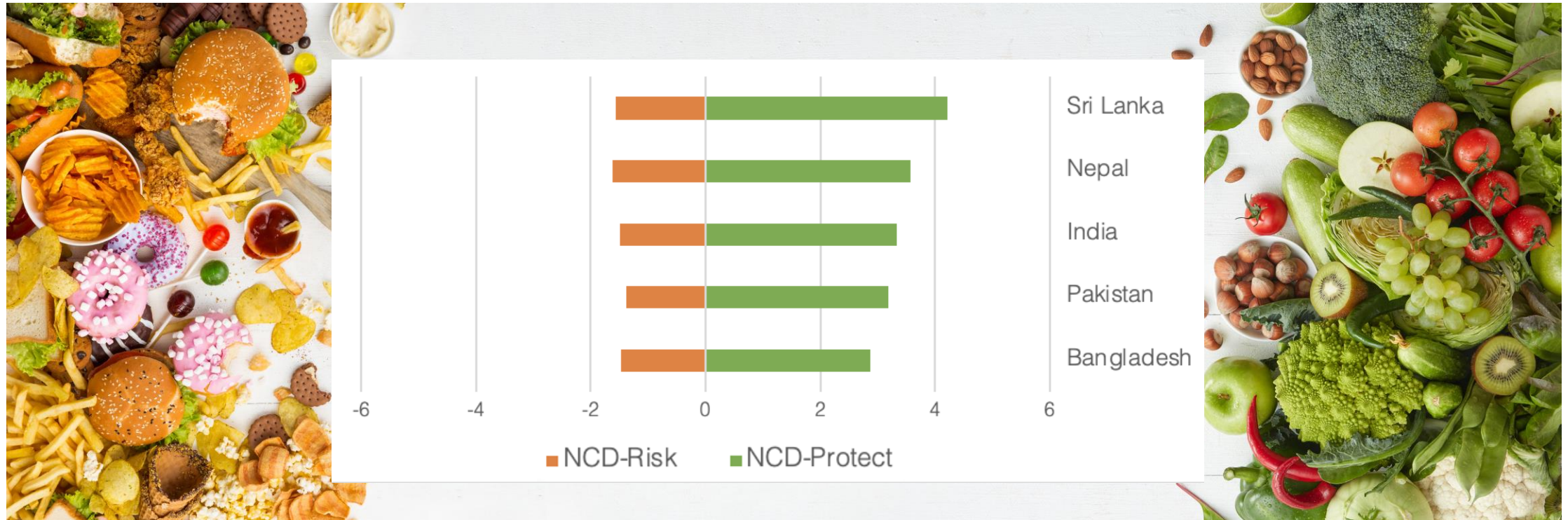
The All-5 indicator is globally comparable; countries can adapt it to reflect their own dietary guidelines



e.g. In India, 12% of people are consuming all food groups recommended in India's "My Plate for the Day"

Dietary factors related to NCDs

- Food groups associated with excess sugar, salt, fat and saturated fat, processed meat
- Similar levels of dietary risk factors for NCDs across South Asia, but health-protective dietary factors vary more
- Protective food groups: diverse vegetables, fruits, whole grains, pulses, nuts and seeds



Few urban/rural differences in packaged salty snacks, instant noodles, and soft drinks

- Only Bangladesh had significantly higher consumption of packaged salty snacks and instant noodles in urban than rural (29% vs 19%)
- Only India had significantly higher consumption of soft drinks in urban than rural (16% vs 11%)
- In most countries in S Asia (except B'desh), no difference in consumption between those reporting not/having enough money for food

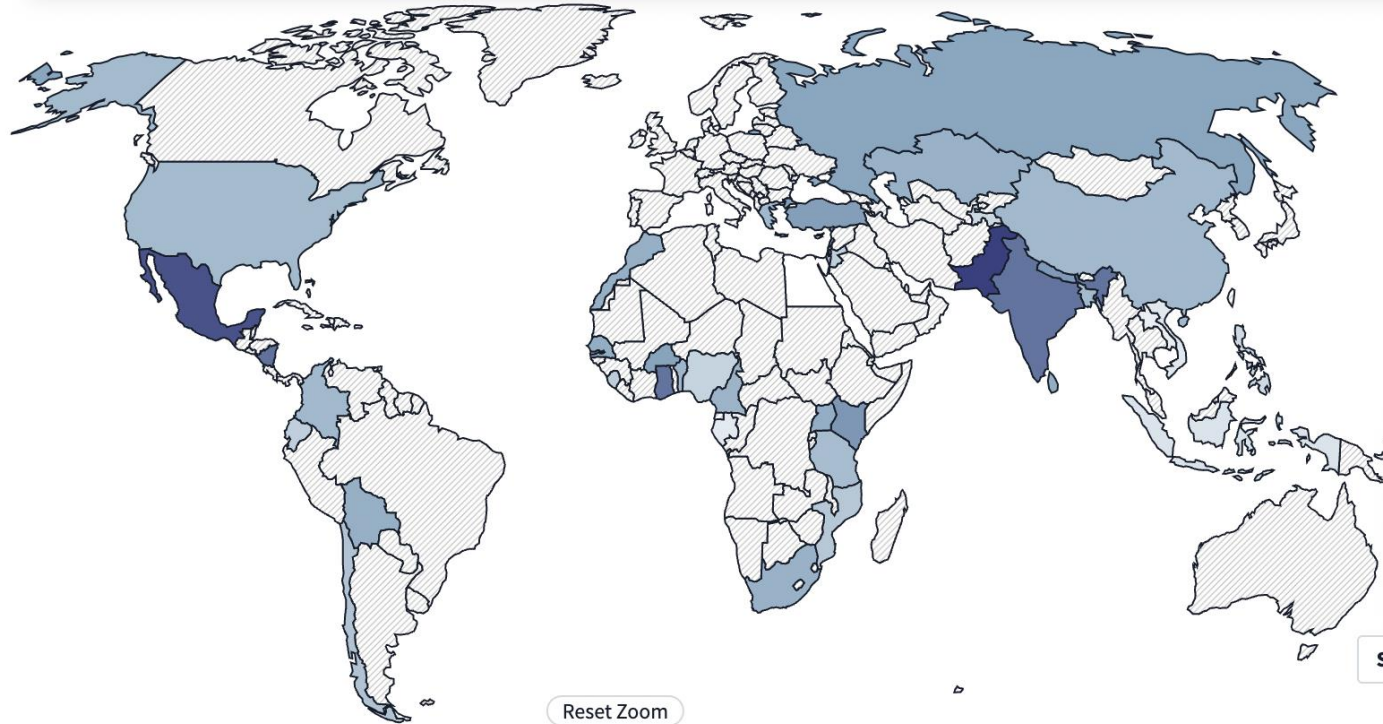


Photo: Betül Uyar



- Search for Indicator
- Adults (age ≥15 years): Sweet foods consumption
 - Adults (age ≥15 years): Unprocessed red meat consumption
 - Adults (age ≥15 years): Whole grains consumption**
 - Adults (age ≥15 years): Zero vegetable or fruit consumption
 - All-5
 - Food group diversity score
 - Global dietary recommendations score
 - Minimum dietary diversity for women
 - NCD-Protect score
 - NCD-Risk score
 - Nutritional status 13
 - NCDs 5

Timeframe 2021 Display latest available data



Adults (age ≥15 years): Whole grains consumption in Percent

9 87

Show Metadata Download Data (CSV)

Reset Zoom

Results demonstrate a feasible monitoring system

- Results and data are publicly available less than 1 year after data collection was completed.
- DQQ costs <1% the cost of a national quantitative dietary intake survey.
- Requires very little training; simply read aloud verbatim; No further adaptation required
- Offers other actors a way to collect comparable data.
 - Multi-topic surveys (Gallup World Poll, DHS)
 - Other national surveys / surveillance systems
 - Pathway toward sustained monitoring of diets
 - Seasonality, impact of shocks
- Data offer actionable insights toward improved diets, nutrition, and health



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Thank you



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