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# Numbers for Nourishment: Diet, Consumption, and Access Insights

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- I have no conflicts of interest to declare

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# Today's talk

- Primer on measuring "nutrition"
- Data on food and nutrition in India [& South Asia]
- Use cases on insights from available data
  - ${\rm \circ}$  Stunting reductions in India
  - $_{\odot}$  Program coverage data in India
  - $_{\odot}$  Dietary data in South Asia and India
  - $_{\odot}$  A local food systems assessment in South Asia
- Summary and reflections

# Why care about malnutrition? Because the consequences of malnutrition are far-reaching

Major contributor to child survival



By far the biggest driver of the burden of disease Global epidemic of non-communicable disease (NCDs)



Cognitive impairment Intergenerational impacts of poor nutrition



Lost income-earning potential Annual GDP losses



# 2 minutes: Come in on the chat box

- What do you think of when you hear the words "malnutrition"

# How is malnutrition/nutrition measured?

- Dietary intake [food]
- Nutrient intake [from food]
- Nutrient status [in the blood/body]
- Functional outcomes related to nutrition [physical tests, cognitive tests]
- Physical outcomes related to nutrition [body size]



# The ways malnutrition is most frequently referred to in major reports

#### Children < 5 years of age

- **Stunting**: child <5 years of age is too short for their age—a result of *chronic* undernutrition (more than 2 standard deviations *below* median in a healthy population)
- **Wasting**: child <5 years of age has weight too low for their height—a result of *acute* undernutrition (more than 2 standard deviations *below* median in a healthy population)
- **Underweight**: child <5 years of age has weight too low for their age—from *either* chronic or acute undernutrition (more than 2 standard deviations *below* median in a healthy population)
- **Overweight**: child < 5 years of age has weight too high for height (more than 2 standard deviations *above* median in a healthy population)



Stunting: an index of child growth based on attained height for age Wasting: an index of child growth based on weight proportional to height



7



## Multiple forms of malnutrition: a new era





## Where does data in India come from on food and nutrition? And how available is it?

Dietary intake [food]	<ul> <li>NFHS (food groups)</li> <li>CNNS (food groups)</li> <li>NNMB (food intake, nutrients)</li> </ul>
Nutrient intake [in food]	<ul> <li>•NNMB (nutrient intakes)</li> <li>•Upcoming DABI – diets, anthropometry, biomarkers</li> </ul>
Nutrient status [in the blood]	•CNNS •NNMB •DABI
Functional outcomes related to nutrition [physical tests, cognitive tests]	•None that I am aware of
Physical outcomes related to nutrition [body size]	•NFHS •CNNS •DABI

Only the NFHS survey rounds are available in public domain



# New diet data portal is currently available for India!

Our



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Learning Network ~ Projects

Diet Data

Contact Us Resources



### Indian Diet Data Portal

Home > Indian Diet Data Portal

### Indian Diet Data Portal







#### About the Indian Diet Data Portal

Data on individual food consumption is needed to make agri-food policies and programmes more nutrition sensitive. The Indian Diet Data portal to summarize, in one place, what individual dietary intake data already exist for India, at the national and sub-national level.

It is designed and developed with the objective to shed light on data gaps in the country with respect to dietary intake data and to make available data more readily available to end users. It includes a compilation of metadata such as where the data were collected, from whom, when, using what tool. In some instances, microdata have also been made available.

We have taken inspiration from the global dietary database, FAO/WHO Global Individual Food consumption data Tool (GIFT)

Join our Learning Network on Indian Diet Data

### Moving an agenda in public policy is complex; bringing data and evidence to that is also complex



The evolution of science and evidence, policy, finance, politics, administrative, societal and cultural perspectives....



<u>Pragati Rawat, John Charles Morris</u>, 2016. Kingdon's "Streams" Model at Thirty: Still Relevant in the 21st Century? <u>https://doi.org/10.1111/polp.12168</u>

# **POSHAN at IFPRI: A knowledge/evidence initiative**

#### Why?

- Support policy and program decisions and actions with data and evidence
- Strengthen capacity to produce and use evidence
- Create demand for nutrition knowledge and evidence

#### Who?

- Initiated by a small group at IFPRI, with several partner organizations over the years
- Primary support from Bill & Melinda Gates Foundation

#### How?

- High quality data & evidence work
- Evidence-based honest-broker
- Pro-active, opportunistic and responsive

#### Focus of the evidence



# Supporting India's policy community with data and evidence over a decade



#### 2011-12: FORMATIVE RESEARCH

- Policy reviews
- Stakeholder influence mapping
- Evidence reviews
- Knowledge network reviews
- Strategy development, drawing on evidence on evidence-to-policy

#### 2013-15: FIRST PHASE

- Thematic research
- Stakeholder engagement
- Thematic, opportunistic &

2016-21: SECOND PHASE

- responsive research
- Expanded research partnerships •
- Expanded engagement
- Capacity building

#### 2021-22: POSHAN 2 extension/supplement

- Thematic research
- Expanded research
- partners

- 2022-24: A new phase
- Thematic research

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Partnerships

# The portfolio of data & evidence to support the policy community



### Work with large data sets

- Descriptive knowledge products
- Research papers



### Implementation research studies

 Convergence and service delivery, technology integration, maternal nutrition, growth monitoring quality, bottleneck flows, food supplements in ICDS, maternity benefit transfers



### Nutrition financing

- Costing studies
- Engagement with a nutrition financing network on continuum of financing

# What forms of evidence did we generate in the last decade?

Туре	Number
Abstract Digests and COVID-19 Digest	39
Data, Policy, and Research Notes*	106
Reports	16
District Nutrition Profiles (counting updated versions across POSHAN-2)	NFHS-4: 640 NFHS-4 & -5: 707
State Nutrition Profiles (counting updated versions across POSHAN-2)	33
Journal articles	55

### Actionable data and evidence products, co-produced with partners

#### NATIONAL

POSHA           Led by IFPRI 8           NO: 93   JANUARY 2023	N	Partin POSHAN Led by IFPRI #	Patrenha and Opportunities to Strengthen and Hamootae Actions for Nucleon in India Data Note					
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#### Topical Data Notes at national level

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#### ABOUT THIS DATA NOTE

ABOUT THIS DATA NOTE INCIDENCE THIS DATA NO

India's policy formator's for hashit and multition in robust and includes most widence-based nutrition and hashit informations. The outgression and/out organn plotforms – the integrated follow the Workgreent Schrieder and the National Hashit Mission together provide the public sector delivery platforms with the mandple to deliver these intervettions across the country. India's efforts at scaling up nutrition interventions are now also supported by the National Mission.

This Data Note describes the overage of a set of two nutrition and health interventions. The findings here are based on data more the should around yields howing 2015 2016 inclusions to acative the overage of the inderventions here data more the should be and which for each woman and inclustor definitions are provided in Annex 1 of this Note. For some indicators, age adaptive any vor.

RURE 1 Correctly of informations sectors the continuum of care, in 2016

DISTRICT



Prevalence of stunting (%)

ich prevalence (30% to <40%)

No data available Low prevalence (<20%) Medium prevalence (20% to <30%)



#### Trends of nutrition outcomes, determinants and interventions

Our approach to engaging and supporting stakeholders explicitly recognizes the diversity of the nutrition policy community in India and the diversity of the available evidence



A policy community is a large group – our approach to engagement is, therefore, tailored to embrace this diversity and be wide-ranging (policy makers, informal and formal working groups, academics, media, civil society and development partners)

Nutrition network map from Odisha,

# Our communications and engagement focused connecting stakeholders to data and evidence <u>and</u> creating demand for data and evidence



Virtual knowledge platforms – IFPRI-POSHAN's new website went live – September 2019



Knowledge products



Physical knowledge networks



Direct engagement & capacity strengthening

# Examples of how we supported the policy community over the years

- Engaging with development partners and other networks
  - Coalition for Food and Nutrition Security
  - Development partner networks
  - Take-home rations network
  - Nutrition financing
  - Maternal nutrition network
  - Quality of care network
  - COVID data partners group
- Supporting Government of India and state governments
  - Monitoring framework for POSHAN Abhiyaan
  - POSHAN Abhiyaan monitoring reports (<u>2018</u>, <u>2019</u>, <u>2020</u>, <u>2021</u>)
  - Responsive analyses and co-authored journal articles and policy products
  - Numerous studies for state governments
- Supporting national policy capacity strengthening
  - In-person nutrition training for district administrators and others
  - Developing nutrition online course for administrators



# Knowledge mobilization, capacity strengthening, and technical support is all about working with people & requires resources

### **Knowledge mobilization & technical support**

- Co-develop knowledge products, with a focus on peer-reviewed research
- Co-organize dissemination events, learning labs, flagship conferences (e.g., Delivering for Nutrition)

### **Capacity strengthening**

- Support efforts to strengthen nutrition capacity for diverse actors
  - Online course with national training academy
  - State-specific trainings for officials
  - Nutrition short courses
- Support evidence-to-policy activities with research partners on diverse thematic areas



# **Bringing people together: Delivering for Nutrition, a flagship conference on implementation research to bring evidence to stakeholders**











Delivering for Nutrition in South Asia 2021 Implementation Research in the Context of COVID-19









Making Food Choices for Healthy Diets: The Push and Pull Factors

Simon Barquera Director, Center for Research in Nutrition and **2022** Health, National Institute of Public Health



## Stunting reductions in India

- Program coverage data in India
- Dietary data in South Asia and India
- A local food systems assessment in South Asia





What have we learnt: On childhood stunting in India, it has been a long road, but the issue is still standing



### **Problem recognition for** childhood stunting: why are Indian children short?

#### Problem

- 2008: Acceptance and "shame" and "curse"
- 2009 -2014: Denial around growth standards
- 2013: EPW collection debunking this
- 2015-2018: Re-acceptance and integration into national goals and POSHAN Abhiyaan strategy
- Determinants
  - Sanitation (Spears et al)
  - Gender/patriarchy (Jayachandran and Pande)
  - Multifactorial, complex (Menon et al., Subramanyam et al)
  - Underlying social discrimination (Deshpande et al. 2021)

#### Discussion

- Methodologically Deficient, Ignorant of Prior Research Garai Wable
- Myths and Realities of Child Nutrition Stuart Gillespie
- Stunting among Children Facts and Implications Alessandro Tarozzi, Angus Deaton, Dean Spears, Diane Coffey, Jean Dreze
- Reality of Higher Malnutrition among Indian Children C Sathyamala, Rakesh Lodha, Yogesh Jain
- Are Child Malnutrition Figures for India Exaggerated? Arun Gupta, Biraj Patnaik, Devika Singh, Dipa Sinha, R Srivatsan, Radha Holla, Sachin Jain, Samir Garg, Sejal Dand, Sulakshana Nandi, Vandana Prasad, Veena Shatrugna
- Choice Not Genes Probable Cause for the India-Africa Child Height Gap Rohini Pande, Seema Jayachandran

#### **Stunting among Children Facts and Implications**

DIANE COFFEY, ANGUS DEATON, JEAN DRÈZE, DEAN SPEARS, ALESSANDRO TAROZZI

ndian children are very short, on aver- obvious, and, in the rest of the literature age, compared with children living in well-understood omission - is the impor-Lother countries. Because height re- tance of the disease environment. There flects early life health and net nutrition, are passing mentions of health and mediand because good early life health also cal care, but healthcare is much less imhelps brains to grow and capabilities to portant for health status than the toll on develop, widespread growth faltering is a children's growth that comes from conhuman development disaster. Panagariya stant struggling with disease. In the past, acknowledges these facts, but argues that economists were taken to task for assum-Indian children are particularly short be- ing that food, primarily driven by real incause they are genetically programmed to come, is the key to human nutritional stabe so. In consequence, the higher preva- tus. Food is obviously important, but so is lence of stunting among Indian children disease, and food and disease interact in than among children in much poorer key ways. All of this has been well undercountries in Sub-Saharan Africa comes stood for a long time, especially in the infrom using inappropriate common stan- terpretation of the historical mortality

#### **Are Child Malnutrition Figures** for India Exaggerated?

ARUN GUPTA, BIRAJ PATNAIK, DEVIKA SINGH, DIPA SINHA, RADHA HOLLA, R SRIVATSAN, SACHIN JAIN, SAMIR GARG, SEJAL DAND, SULAKSHANA NANDI, VANDANA PRASAD, VEENA SHATRUGNA

that the current World Health Organisation (who)-recommended international growth standards exaggerate the extent of stunting in India. He points out that while the prevalence of stunting by current norms is higher in India than and highlights the complexity of relationmany poorer Sub-Saharan African coun- ships that produce "stunted bodies" in tries, it has much lower mortality rates India. As we understand it, low weights

n his paper Arvind Panagariya argues selectively to drive home the point that the Indian story of malnutrition needs to be recast and retold.

Our response attempts to go beyond numbers, and get to the root of the problem of hunger and malnutrition,

### **Determinants: What factors explain differences between high- and low-stunting districts across India?**



#### Key insights:

- Used district-level data from national survey to highlight spatial differences in stunting across 640 districts in India.
- Findings highlight the range of factors that explain differences between high and lower stunting burden districts.
- Results emphasize the importance of focused strategic planning and action to address multiple, and different, district-specific determinants of stunting across India.

Source: Menon P, Headey D, Avula R, Nguyen PH. Understanding the geographical burden of stunting in India: A regression-decomposition analysis of district- level data from 2015–16. Matern Child Nutr. 2018;14: e12620. https://doi.org/10.1111/mcn.12620

# Lessons from Indian states that reduced stunting (2006-16) offered insights for strategy that are not yet fully included in policy





11-23%

#### How did policies evolve?

- Major national efforts ICDS scale-up; NRHM introduction and scale up
- Successful states added to national efforts with varying nature and timing of state additions
- Food security, poverty policies/programs too + economic growth

#### What supported change?

- · Vision to address an outcome was key
- Capable, stable bureaucrats who were given space and time
- Financing adequacy, flexibility, stability;
- Efforts to strengthen implementation systems
- Catalysts, champions of various types played a role (media, civil society, human rights commissions, politicians, bureaucrats)

Source: Avula et al. 2021. <u>Reducing childhood stunting in India: Insights from</u> four subnational success cases. Food Security.

#### Multisectoral drivers of change



- Stunting reductions in India
- Program coverage data in India
- Dietary data in South Asia and India
- A local food systems assessment in South Asia



#### Supporting India's policy community with evidence over a decade India launches India revises umbrella national umbrella national program for program for nutrition (2018) nutrition (2022) 2019-20: Support to 2017: Phase 2 2011: 2013: National Mission Inception Research & 2015: 2022-24: A work, esp. research engagement Research state, district Elections: incumbent new phase

2021:NFHS-5, 2012: Strategy 2014: 2016: 2018: NFHS-4, NITI NITI-IIPS development Research, new Research (new MoU, courses collaboration. government POSHAN II evaluations); Phase 2 evaluation

- 2022-24: A new phase
- Thematic research
- Partnerships

# Progress since launch of POSHAN Abhiyaan in 2018: Coverage increased for most preconception and pregnancy interventions between 2016 and 2021



ANC: Antenatal care, IFA: Iron & Folic Acid, MCP: Mother & Child Protection

Source: NFHS-4 (2015-16) and NFHS-5 (2019-21) unit-level data; Note: Sample is mother-last child pairs at the household level.

Progress since launch of POSHAN Abhiyaan in 2018: Coverage increased for *all* interventions during pregnancy and post-natal periods between 2016-2021



% Coverage

Source: NFHS-4 (2015-16) and NFHS-5 (2019-21) unit-level data Note: Sample is mother-last child pairs at the household level.

**Progress since POSHAN Abhiyaan in 2018:** Coverage of most early childhood interventions improved in India between 2016 and 2021



Source: NFHS-4 (2015-16) and NFHS-5 (2019-21) unit-level data; Note: Sample is mother-last child pairs at the household level.

*What we learnt about connecting the dots:* An learning architecture to support India's nutrition journey during POSHAN Abhiyaan (2018-2022) offered numerous opportunities for data and evidence communities

# Examples of evidence to program linkages in POSHAN Abhiyaan (2018-2022)

- Monitoring framework
- Periodic progress reports and links to political and administrative reviews
- SBCC surveys and links with national SBCC Alliance
- Aspirational district program (ADP) surveys and links with ADP program
- M-Health (ICDS-CAS) monitoring and evaluation and links with technology roll-out program
- Anemia Free India dashboard and other learning opportunities
- COVID-19 monitoring and learning networks





- Stunting reductions in India
- Program coverage data in India
- Dietary data in South Asia and India
- A local food systems assessment in South Asia



# Dietary data gaps in South Asia

- The availability of dietary data across Bangladesh, India, Nepal, and Pakistan is currently poor.
- Data are mostly available on food group consumption and for infants and young children.
- Few surveys capture quantity of foods consumed; estimating nutrient intake from population-based surveys is therefore not possible
- Only Bangladesh currently has large-scale publicly available and repeated rounds of data on dietary intakes for multiple age groups.



#### **ABOUT THIS NOTE**

This research note presents findings on the availability of diet-related data in public! available population-based surveys conducted in Bangladesh, India, Nepal, and Pakistan in the last decade. It is intended to be used by researchers and policymakers to understand the data landscape and identify measurement priorities for future surveys.

Availability of

South Asia

assessment

**Research Note** 

A data availability

data on diets in

for Bangladesh, India,

Nepal, and Pakistan

#### **KEY FINDINGS**

- · Data on diets for older children and adolescents are captured less frequently than for younger children and women of reproductive age.
- · Data are mostly available on food group consumption and for infants and young children; data on consumption of unhealthy foods is poor Few surveys capture quantity of foods consumed; estimating nutrient intake from
- population-based surveys is therefore not possible
- Only Bangladesh currently has large-scale publicly available and repeated rounds o data on dietary intakes for multiple age groups.
- Dietary data are essential to shape public policy on nutrition; financial and technica investments are needed to scale up data availability in South Asia



#### DATA AVAILABILITY: HEALTHY/UNHEALTHY FOOD CONSUMPTION

•	<ul> <li>Data on consu unhealthy foo 24-hour recall except in Ban</li> </ul>	Imption of healthy or ds is available mainly from s of food types/groups, gladesh where data are also	not available in India and Pakistan. In India, the CNNS does provide some insights in aggregated reports/papers, but the data are not available in public domain.
	available from	weighed food recalls.	Data on consumption of processed meat
	<ul> <li>More data are healthy foods</li> </ul>	available for consumption of than on unhealthy foods.	was only available in Bangladesh (BIHS 2018-19).
	<ul> <li>Data on consu unhealthy foo</li> </ul>	Imption of healthy and ds among adolescents were	

Table 5. Availability of data on consumption of healthy and unhealthy foods by children (CH), adolescents (AD), women of reproductive age (WRA), and

	Survey	Healthy foods								Unhealthy foods						
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	MICS- NP 2019		1	СН		🖌 СН		🖌 СН	×		x		x		x	
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Pakistan	PDHS 2017-18		1	CH		CH		🗸 CH	x	*	CH	1	CH		x	

#### BACKGROUND

Diets, and especially diet quality, are

all age groups given changing diets and nutritional challenges over time

diets should be based on recent data

and variation during lifetimes.

Programs and policies to improve

immediate determinants of

nutritional status (2)

dietary challenges.

It is important to measure

region.

availability of dietary data across Nutritional status outcomes are poor countries in South Asia. in South Asia (1) with multiple forms of This work responds to this research malnutrition present across the

gap by providing a landscape analysis of publicly available data on diets in four countries in South Asia.

However, little is known about the

#### **OBJECTIVES**

· Progress on improving diets requires · We aimed to assess the availability of adequate information on current consumption of all types of foods for

data on the quality of diets and nutrient intakes for multiple age groups across four countries in South Asia: Bangladesh, India, Nepal, and Pakistan

and evidence and should be updated routinely to reflect shifting dietary patterns



#### CONCLUSIONS

multiple age groups. Some datasets, such as India's

rounds of data on dietary intakes for

Comprehensive National Nutrition

Survey, could not be included in our

review because they are not in public

children

domain

RECOMMENDATIONS · The availability of dietary data across · All age groups including older children and adolescents should be included in Bangladesh, India, Nepal, and Pakistan is surveys that capture dietary data. currently poor. Data are mostly available on food group Future surveys should consider consumption and for infants and young inclusion of data to compute recently developed validated indicators of Only Bangladesh currently has largehealthy diets. scale publicly available and repeated

· Data on quantity of foods consumed should be gathered periodically to better understand nutrient intake. Available data should be posted in public domain to enable widespread use for research and for policy. Dietary data are essential to shape public policy on nutrition; financial and technical investments are needed to scale up data availability in South Asia

Availability of data on diets in South Asia: A data availability assessment for Bangladesh, India, Nepal, and Pakistan | IFPRI : International Food Policy Research Institute

# Insights on food patterns among adults in India: NFHS

- Very limited data on food groups in the NFHS
  - Not all food groups
  - Not asked using standardized dietary indicator methods for food groups
- Still useful to assess patterns and trends
- At the national level from 2005-06 to 2019-21, only the daily consumption of dairy has increased.
- The consumption of dark green leafy vegetables and any protein has declined and consumption of fruits has remained low.
- Few Indians consume animal source foods daily, and only around half consume any protein (either animal source foods or pulses).
- On a positive note, the consumption of fried foods and aerated drinks has not increased in the last 4-5 years



https://poshan.ifpri.info/2023/03/03/trends-and-patterns-in-consumption-of-foods-among-indian-adults-insights-from-national-family-health-surveys-2005-06-to-2019-21/

# Vast differences in trends and levels of daily consumption of green leafy vegetables vs. fruits (NFHS)



# India: Insights on intake of 17 food groups from the CNNS

Figure 1. Frequency of intake of various food groups among adolescents 10-19 years in India



Chakrabarti et al, in preparation

# **Designing a local food systems assessment**



Conceptually grounded in multiple frameworks/literatures ·HLPE framework for overall food system

- •Gender-adapted HLPE
- •Food environment framework
- •Drivers of food choice
- •Food systems countdown indicators
- •Adolescent diets and nutrition



ABOUT THIS NOT



Identifying gaps in secondary data on diets in South Asia

Ouestionnaire assembled using validated and/or field-tested instruments where available •New questions designed where unavailable

questionnaire harmonization

GDOS.

refinement

and survey

workshop

(Nepal, Jan

2023)

Demographic Drivers Distribution and Storage Processing, Packaging Markets, Modern Retail

Domains for inquiry and choice of respondents developed based on these multiple frameworks and interests

Pre-survey design field visits to multiple locations



Cross-country questionnaire design workshop (Nepal, Sept 2022)

Drivers of food choice analysis workshop (Bangladesh, Mar 2023)



www.cgiar.org https://cgspace.cgiar.org/bitstream/handle/10568/127434/TAFSSA%20Methods%20Note%201 Food%20

Systems%20Assessment anonymous.pdf?sequence=1

# **District diet snapshot**

- Data collected in Feb-Mar 2023
  - 4000 households, ~12,000 individuals (adult men, adult women, adolescents)
- Highlights gender and age differences in diets
  - E.g. sweets/ice-cream consumed by 40% of adult women vs. 75% of adult men
- Reports on drivers of food choice for select food items
  - Perceived nutrition quality, safety, accessibility, affordability, ease of preparation, taste, etc.
- Identifies food sources
  - Most food consumed is purchased (not produced, received from others, or foraged)



system in the district

Go

46% & 30%

Adult men and women with diverse diets

igure 2. Highlights from this brief

Citrus fruits Deep orange fruits

Other fruits

Legumes Deep orange tubers

Nuts & seeds 🌖 Whole grains

Low-fat dairy

Eggs Any animal-source food

Any fruits

Any vegetables

High-fat dairy Red meat

Processed meat Refined grains/baked goods Sweets & ice-cream Sugar-sweetened beverages 🥮 Juice White roots & tubers Purchased deep fried foods Deep fried foods at home

FINDINGS

Liquid oils Fish & shellfish

leafy vegetables Cruciferous vegetables

Deep orange vegetables 🛛 🗐

Other vegetables

Poultry & game meat

8%

#### MEASURING WHAT PEOPLE What are people eating in Rangpur? Food consumption, food security, food sources, and food perceptions





73%

Adolescents consume biscuits or

times a week

We also computed metrics that indicate how healthy or unhealthy diets are (Figure 4B) Higher GDQS- and GDQS+ scores indicate better diet quality. We then grouped GDOS scores into 3 categories to indicate risk of poo diet quality (Figure 4C).

To capture this information, we used the

On the following pages, we show the percentage of individuals who consume various food groups (Figure 5), the consumption quantity by food group (Figure 6), how many times per day people eat (Figure 7), who eats at various eating occasions (Figure 8), and the most commonly consumed foods by eating occasion (Figure 9 and food group (Figure 10)

✓ Dietary diversity was higher among adult men than adult women or adolescent Adolescents were at higher risk of poor diet quality compared to adults

#### TAFSSA District Agrifood Systems Assessment - What Are People Eating

#### igure 5. Consumption of food groups on previous day

40% 50% 60% 70% 80% 90% 100%

Figure 1. District location in

貯

4.2 & 3.8

Number of times per day adult men & women eat food

77%

Of food

consumed is purchased rather than

Adult male Adult female

70%

#### 1. There is room for improvement in diet quality.

- · Consumption of healthy food groups such as whole grains, nuts & seeds, anima source foods, fruits, and deep orange vegetables is low.
- · Consumption of unhealthy food groups such as refined grains/baked goods, biscuits, sweets, and sugary tea/coffee is high
- · Consumption of starchy foods with low nutrient density (rice, potatoes) is high · Compared to adults, adolescents are more likely to be at "high" risk of poor die
- quality.
- 2. Most food is purchased from markets rather than being produced by households
- 3. Food purchases are typically from haats, followed by retail shops

#### **KEY OUESTIONS FOR ACTION**

**KEY TAKEAWAYS** 

- 1. What are the key barriers to improving diet quality in the district 2. What are a few potential solutions to overcome these barriers? What is needed from
  - decision-makers and from program teams to implement these solutions?
- 3. How can understanding eating patterns throughout the day and perceptions about healthy and unhealthy foods help inform strategies to influence consumption of thes foods?

4. What additional information is needed to facilitate actions to improve diets in the district?



#### Scott et al, 2023. Forthcoming...

#### Note: High-fat dairy and red meat are considered unhealthy when consumed in high quantities

insume dark green leafy vegetables than adults

individuals consumed some ASE on the previous day. Adult males were the most likely to consume sweets & ice-

Consumption of fruits was <20% for all respondent types and adolescents are less likely to</p>

Fish is the most commonly consumed animal-source food (ASF), and around 80% of

#### Diet quality scores Fig 4A. Minimum dietary diversit

### % who consumed at least 5 of 10 foo Fig 4B. Global diet quality positive (healthy) and negative (unhealthy) sc

6.6 Fig 4C, Risk of poor diet qualit High risk (GDOS < 15) Moderate risk (CDQS 15-22.9) CDOS 23+1

CDQS





### Global Diet Quality Score: Level of consumption of food groups using GDQS consumption categories (Bangladesh)





www.cgiar.org





### Food systems: We are just at the beginning





- Malnutrition in all forms is a challenge across India and South Asia but there are success stories as well
  - Rising burdens of overweight, hypertension and stagnating anemia are all substantial challenges for the 2020s
- Healthy [and sustainable] diets are an important driver of all forms of malnutrition but challenges abound in achieving healthy diets for all
- Data on a full range of issues related to food and food systems is crucial to moving forward on the food and nutrition agenda but is limited both in availability, accessibility and content
- Available data can help but ensuring that discourse is data-grounded is essential

# Researchers can play a critical role in connecting the dots between data, evidence and policy



# What can researchers who care about supporting policy communities do?

- Stay grounded in data and evidence
- Embrace complexity
- ✤ Align not just <u>my</u> science
- Be available, be pro-active
- Connect, bring others in
- Recognize our limited power but never give up
- Invest in teaching and learning from policy actors

#### What can the policy community do?

- Stay informed
- Engage and listen to researchers and invest in data
- Institutionalize processes to absorb the fullness of evidence and data