



WEE Measurement Workshop

PRESENTATION FOR 28th April, 2022



UC San Diego
SCHOOL OF MEDICINE

BILL &
MELINDA
GATES
foundation



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Quick Poll!

(Expectations)



Introductions

1. In the chat box – please share the following:
 1. Name
 2. Position
 3. Affiliation
 4. What you hope to get from this presentation





ABOUT

USER TOOLS

EXPLORE MEASURES

RESOURCES

NEW SPECIAL TOPICS

BLOG



Enabling Gender Data to Support Empowerment

DISCOVER MORE

<https://emerge.ucsd.edu/>

Today's Webinar

1. What is EMERGE?
2. Finding and Selecting WEE Measures on EMERGE
3. Creating new WEE measures





emerge

EVIDENCE-BASED MEASURES OF
EMPOWERMENT FOR RESEARCH ON GENDER EQUALITY



Why Does Measuring Gender Equality And Empowerment Matter?

SDG 5: To Achieve Gender Equality and Empower (GE/E) All Girls

80% of indicators do not have measures

Integrate gender equality into global health and development.

Standard measures of GE/E need to be recognized and recommended.

Validity of existing GE/E measures is questioned

Science of measure development is not highlighted, and sometimes not used.

Good measures exist but are not always used.

Good measures may work for national or state level monitoring but not program evaluation. They may work for one context or population but other another.

Problematic measures are not changed.

Many gaps in measures exist.

There is need for standardized and shared definitions of gender equity and empowerment



EMERGE Project

Evidence-based **M**easures of **E**mpowerment for **R**esearch on **G**ender **E**quality.

Aims: compiling, evaluating, & improving global gender equality and empowerment (GE/E) survey measures.

EMERGE is a one-stop shop digital platform to:

- *Find* best evidence GE/E survey measures
- *Learn* about the science of GE/E survey measures
- *Share* your validated GE/E survey measures



<http://emerge.ucsd.edu/>



What does EMERGE do?

IDENTIFY – TRAIN – CREATE – ACCESS

IDENTIFY

- Dimensions and constructs of GE/E
- Measures used in the field

TRAIN

- Scholars in measurement science

CREATE

- Fund researchers to create innovative measurement studies, globally
- Report on gaps in GE/E measurement

ACCESS

- Improve access to and awareness of GE/E measures
- 500+ GE/E measures on EMERGE: <http://emerge.ucsd.edu/>



BUILDING BRIDGES BETWEEN SCIENTISTS AND PRACTITIONERS



- Shared definitions with experts and collaborators
- Identifying and developing knowledge on potential constructs and good measures

- Website: public good and open resource with a focus on science of measures

- Capacity building and technical support to grantees and partners in India

EMERGE Collaborations

Partners with large scale survey researchers to get best evidence measures to scale:

- LSMS
- World Values Survey
- Afrobarometer
- VACS

Developing and testing new measures:

- Roadmap to measure agency and norms in the context of WEE
- Agency in FP
- COVID survey modules

Small grants to develop and test constructs of WEE, COVID-19, gender norms



Recent Collaborations

Institutions awarded grants in 2020 to study the Gendered impacts of COVID-19:

- Africa Medical and Behavioural Sciences Organization (AMBSO); University of California-Los Angeles (UCLA)
- C3 India
- George Washington University
- Institute for Financial Management and Research (IFMR); Yale University
- Johns Hopkins School of Public Health
- Population Council, Kenya
- Save the Children, Nigeria
- VSO Nepal; Emory University



Recent Collaborations

Institutions awarded grants in 2021 to study WEE and Gender Norms:

- Busara Centre for Behavioural Economics, India
- REMIT Kenya/ University of California-Berkeley
- UNICEF
- University of California-San Francisco, USA
- University of Sindh, Pakistan
- World Bank



Quick Poll!

Pre-Test Questions



What is missing from National Surveys and Gender Measures

We are working with multinational survey groups to increase potential questions on gender equality and empowerment, particularly those on choice, agency and norms, but there is limits to space, topic priorities, and tested measures:

Can we improve the quality and quantity of gender data at scale that better meet nation-level needs and goals via country-led guidance and implementation of new gender measures at scale?

What are key areas missing from existing survey data?

- Decision-making agency as indicated by final decision-making control and across areas of focus.
- Social norms, as most surveys focus on attitudes and beliefs/opinions.
- Time use, with inclusion of control over time and leisure time
- Digital/internet access, control over use, and abuses
- Women's voice and leadership
- Abuse experiences in health systems
- Policing violence

What are key areas in your country context or measures that inadequately assess within country needs?



How to Find and Select WEE Measures on EMERGE





ABOUT

EXPLORE MEASURES

RESOURCES



SPECIAL TOPICS

BLOG



Gender Equality and Empowerment

Search for Survey Items and Scales

SEARCH FOR SURVEY TOOLS

WHAT IS A MEASURE?



<http://emerge.ucsd.edu/>



Empowerment Measures

EMERGE Resource

[VIEW RESOURCES](#)

WOMEN'S ECONOMIC
EMPOWERMENT



UNPAID CARE/WORK

SOCIAL EMPOWERMENT



WOMEN'S ECONOMIC AGENCY

PSYCHOLOGICAL
EMPOWERMENT



GENDER NORMS WOMEN'S
LABOR/WORK

POLITICAL



FINANCIAL INCLUSION

LEGAL



BUSINESS, ENTERPRISE &
ENTREPRENEURSHIP

HOUSEHOLD / INTRA-FAMILIAL >
RELATIONS

PROFESSIONAL / VOCATIONAL
TRAINING

HEALTH



PAID WORK AND CONTROL
OVER RESOURCES

GENDER BASED VIOLENCE



ACCESS TO RESOURCES

ENVIRONMENT &
SUSTAINABILITY



TIME USE

EDUCATION



[Download Measures](#)

Filter by dimensions

[Time Use](#) x

Filter by psychometric scores

Filter by countries

Filter by multi-country

Filter by short measure

[Collection of Household Amenities – Tanzania](#)[Community-Level Restrictive Gender Norms](#)[Favorable Marriage Descriptive Norm](#)[Household Care Survey 2014: Men's Behavior and Division of Tasks](#)[Household Care Survey 2014: Men's Personal Views on Household Division of Tasks](#)[Household Care Survey 2014: Women's Personal Views on Household Division of Tasks](#)

[Download Measures](#)

Filter by dimensions

Filter by psychometric scores

Filter by countries

Filter by multi-country

Filter by short measure

[Adolescent Empowerment Measure – Behavioral Control and Decision Making](#)[Adolescent Empowerment Measure – Freedom of Movement](#)[Adolescent Empowerment Measure – Voice](#)[Adolescent Stigmatizing Attitudes, Beliefs and Actions \(ASABA\)](#)[Adverse Child Experiences \(ACEs\) Among Young Adolescents](#)[Balance of Power](#)[Contraceptive Use Stigma](#)

Let's Find a WEE Measure



Components of a measure page

- Measure description
- Items and response options
- Scoring procedure (if applicable)
- Primary citation
- Psychometric score calculation (if applicable)
- Google Scholar citation frequency
- Key demographic information
- Measure download option



Two types of measures

1. Large-scale survey

- Typically no psychometric score
- Multi-state or multi-country

2. Instrument with psychometrics

- Validity and/or reliability tested
- May or may not be intended as measure validation
- Original development or adaptation (different sample population, short form)



PROJECT-LEVEL WOMEN'S EMPOWERMENT IN AGRICULTURE INDEX (PRO-WEAI)

The project-level Women's Empowerment in Agriculture Index (pro-WEAI) is a 40-item measure that agricultural development projects can use to identify key areas of women's disempowerment, design appropriate strategies to address identified deficiencies, and monitor project outcomes related to women's empowerment. The 12 pro-WEAI indicators are mapped to three domains: intrinsic agency, instrumental agency, and collective agency. The measure is adapted from the [Women's Empowerment in Agriculture Index \(WEAI\)](#) developed by Alkire et. al (2013).



ITEMS:

Instrumental Agency

Autonomy in decisions

Now I am going to read you some stories about different farmers and their situations regarding different agricultural activities. For each I will then ask you how much you are like or not like each of these people. We would like to know if you

PSYCHOMETRIC SCORE

PSYCHOMETRIC SCORE: MEDIUM

CITATION FREQUENCY: HIGH

CATEGORIES:

GEOGRAPHIES TESTED:

Bangladesh
Burkina Faso
Mali

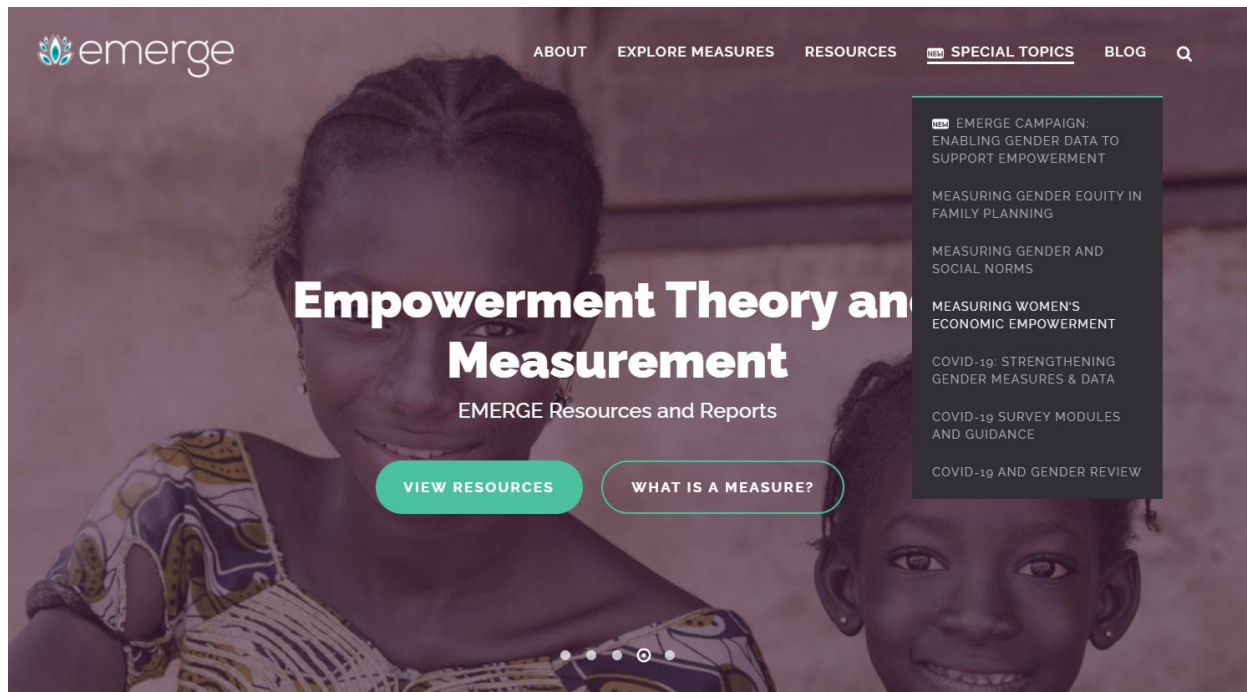
POPULATIONS INCLUDED:

Female
Male



Special topic pages: WEE

- Reports generated by GEH team
- Modules-recommended measures/items
- Overview of current measures on EMERGE



Questions?



Creating new WEE measures

An overview of concepts and terms in measurement



What do we mean by a measure?

Measures: usually mean a set of questions/items innovations: vignettes, observations, big data

Many terms used:

- Scale
- Score
- Index
- Indicator
- Metrics

Good Measures: clear inclusion/exclusion criteria (definition can vary by context, population, time and theory)



Gender Equality Concepts & Terms

GE Concepts (e.g. norms)

- Difficult to quantify
- Constructs are complex
- Constructs are multi-dimensional

Construct: Socially ‘constructed’



Items and scales

- **Items**
 - Individual question or component of a measure (conveying single idea)
 - Relates to one specific construct (age at marriage)
- **Scales**
 - Inter-related items drawing from a construct
 - Collections of items combined into a composite score
 - Relates to one specific construct but may capture sub-constructs (depression- hopelessness, sadness)



Creating Good Measures

Scientific Process: Two Parts

- **Formative Phase:** preliminary research
 - Develop aspects and items for measurement
 - Testing content, cognitive and usability standards
- **Psychometric Testing**
 - Reliability and validity of the measure



Reliability and Validity

PSYCHOMETRICS (Evidence)

Reliability: *tests how consistent a measure is on repeat applications*

- Internal: whether items are linked
- External: repeat consistency

Validity: *tests if the measure captures what it is intended for*

- Content: fully capture each aspect of a particular construct
- Construct: extent to which a measure is related to similar constructs
- Criterion: degree to which measure is associated with a gold-standard



Reliability and Validity (Examples)

A measure with low internal reliability

Household Time Use Measure

- How much time does it take you to collect water?
- How much time does it take you to collect firewood?
- How much time does it take you to perform household chores?
- What do you do with your free time?

Reliability and Validity (Examples)

A measure with low internal reliability

Household Time Use Measure

- How much time does it take you to collect water?
- How much time does it take you to collect firewood?
- How much time does it take you to perform household chores?
- What do you do with your free time?

A measure with low content validity

- A measure for time use in household chores should include all of the major household chores viz. cooking, cleaning, buying food, childcare etc.
- If a measure does not capture all aspects of household chores then it would have low content validity

Psychometrics

Building the field!
How to create good measures



10 steps for measure creation

- 1 Have a clear idea of what construct you want to measure
- 2 Conduct formative research to understand construct and potential items
- 3 Generate a pool of potential items for inclusion
- 4 Decide on the measurement format
- 5 Have experts review the item pool
- 6 Decide on inclusion of validation items
- 7 Administer items for cognitive interviews and pilot testing
- 8 Evaluate the individual items of the measure
- 9 Optimize the length of the measure
- 10 Conduct field study with reliability and validity testing



EMERGE Report: How-To!



April 2020

EMERGE MEASUREMENT GUIDELINES REPORT 2: How to Create Scientifically Valid Social and Behavioral Measures on Gender Equality and Empowerment

BACKGROUND ON THE EMERGE PROJECT

EMERGE (Evidence-based Measures of Empowerment for Research on Gender Equality), created by the Center on Gender Equity and Health at UC San Diego, is a project focused on the quantitative measurement of gender equality and empowerment (GE/E) to monitor and/or evaluate health and development programs, and national or subnational progress on UN Sustainable Development Goal (SDG) 5: Achieve Gender Equality and Empower All Girls. For the EMERGE project, we aim to identify, adapt, and develop reliable and valid quantitative social and behavioral measures of GE/E based on established principles and methodologies of measurement, with a focus on 9 dimensions of GE/E- psychological, social, economic, legal, political, health, household and intra-familial, environment and sustainability, and time use/time poverty.¹ Social and behavioral measures across these dimensions largely come from the fields of public health, psychology, economics, political science, and sociology.

Box 1. Defining Gender Equality and Empowerment (GE/E)

Gender equality is a form of social equality in which one's rights, responsibilities, and opportunities are not affected by gender considerations. Gender empowerment is a type of social empowerment geared at improving one's autonomy and self-determination within a particular culture or context.¹



* Step-1: Clarity on what to measure?

What do I want to measure?

- Define it! (e.g. norm related to?)
- Consult theory and published literature
- Construct of interest: specific vs. general; distinct from others?
- Measure varies by situation? (e.g., career vs. financial autonomy – common vs unique)



Social Phenomena is complex and hard to measure

- Formative Research can help!



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* Step-2: Formative Research

Literature Review

- Synthesizing a mature topic
- Studying an emerging issue
- Identifying substantive and methodological gaps

Theory

- Providing an underlying framework
- Defining, hypothesizing relations and predicting

Qualitative Research

- Population of interest or key stakeholders
- In-depth interviews or focus groups
- Hypothesis generating and exploration of a construct



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Step-3: Generate a pool of potential items

Items: reflect the scale's purpose and construct of interest

- Be creative when developing new items!

Items should be specific and comprehensive in assessing the construct but distinct from each other

- Too many items is better than too few at this stage

Use simple language; each item communicates one idea



Tips When Developing Items!

- Be inclusive, exhaustive
- Each item should be distinct and important
- Items should be linked to the construct
- No rule about how many items in the initial pool
- Writing items for a measure is not easy – capture the construct and be clear!



Remember!

- Short sentences
- Clear
- Simple language; negative vs positive wording
- Item conveys 1 idea
- Multiple negatives avoided
- Avoid double barreled statements: “*Do you get support from family or friends.....*”



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Step-4: Measure scoring format

Keep in mind the construct and the measure's expected use

Many Scoring Formats:

- Dichotomous (yes/no)- (Agree/Disagree)
- How many of your... (used to capture network and influencers)
- Likert scale



How to score:

- Provide clear scoring instructions
- Caution on direction of the question (e.g. negatively framed question with positive scoring)
- Simplicity of the question makes interpretation easy



Example: Measuring Decision-Making

Synthesizing Different Measurement Formats

Who decides how the money you earn will be used?

Mainly you; mainly husband or
you and husband jointly

Who decides how your husband's earnings will be used?

“ “

Who usually makes decisions about health care for yourself?

“ “

Who usually makes decisions about making major household purchases?

“ “

Do you have any money of your own that you alone can decide how to use?

Yes – No

Are you allowed to go to the following places:
Market; health facility; outside this village

Alone; only with someone else;
not at all

Do you have a bank or savings account that you yourself use?

Yes - No

Source: Demographic and Health Surveys



Pit-Stop-1

1. What are some challenges that you foresee in your work? In terms of:
 - Identifying gaps in measurement
 - Identifying existing measures for adaption
 - Measure development
 - Measure validation
2. What might be some ways of overcoming them? (Okay to not have the answers now)



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Step-5: Expert input on measures

Can validate if the measure captures the construct

- Relate items to construct and domains
- Improves clarity of items
- Identify gaps or missing items
- Review wording, structure, response alternatives, question order, prompts and navigational rules



Experts: academics, program managers, policy and local stakeholders, operational researchers

At the end of the day:

- Accepting or rejecting suggestions is your call
- You know the purpose and context best!



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* Step-7: Cognitive interviews & pilot testing

Cognitive interviews: 10-20 participants

- Assessing participant response, understanding of content and response options, why responded in a certain way, response confidence.



Pilot testing:

- Pilot sample: 20-30% of the full study sample
- Characteristics: representative, variability, practical
- If sample size is too small, inferences may not be informative or stable

Identifying implementation challenges:

- Long survey
- Best time for recruitment and full survey
- Questions to drop (explain why)



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Step-9: Optimizing Length

Practical aspects related to the participants or the study

Should items be dropped?

- How does this influence reliability
- Justify the decision to drop items

Lengthy scales are burdensome, costly and resource intensive



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SCALE OF ECONOMIC ABUSE (SEA)

The Scale of Economic Abuse (SEA) is a 28-item measure of individual experience of economic abuse, separated into two domains: Economic Control and Economic Exploitation. Different aspects of economic abuse captured by the scale include being prevented from working or having one's money used unwillingly by an intimate partner.

ITEMS:

Directions: I'm going to go through a list of things some men do to hurt their partner or ex-partner financially. Could you tell me, to the best of your recollection, how frequently your partner or ex-partner has done any of the following things since your relationship began?

Subscale: Economic Control

1. Steal the car keys or take the car so you couldn't go look for a job or go to a job interview.
2. Do things to keep you from going to your job.
3. Beat you up if you said you needed to go to work.
4. Threaten you to make you leave work.
5. Demand that you quit your job.
6. Do things to keep you from having money of your own.
7. Take your paycheck, financial aid check, tax refund check, disability payment, or other support payments from you.
8. Decide how you could spend money rather than letting you spend it how you saw fit.
9. Demand to know how money was spent.
10. Demand that you give him receipts and/or change when you spent money.
11. Keep you from having the money you needed to buy food, clothes, or other necessities.

PSYCHOMETRIC SCORE

PSYCHOMETRIC SCORE: MEDIUM

CITATION FREQUENCY: HIGH

CATEGORIES:

GEOGRAPHIES TESTED:

United States of America

POPULATIONS INCLUDED:

Female

AGE RANGE:

Adolescents

Adults

DOWNLOAD MEASURE

The Psychometric Score you see on any EMERGE measure is based on the adherence to the above 10 steps



PSYCHOMETRIC SCORE:

FORMATIVE RESEARCH

- ☐ Qualitative Research
- ☒ Existing Literature/Theoretical Framework
- ☒ Field Expert Input
- ☐ Cognitive Interviews / Pilot Testing

RELIABILITY

- ☒ Internal
- ☐ Test-retest
- ☐ Interrater

VALIDITY

- ☒ Content
- ☒ Face

PSYCHOMETRIC SCORING



Total Score: 5.00/8 Points (MEDIUM)

CITATION FREQUENCY



KEY

- ☒ FULL POINTS
- ☐ PARTIAL POINTS
- ☐ NOT ASSESSED
- ☐ NOT APPLICABLE

For more details, see [Scoring Methodology](#)



Pit Stop-2

1. What are some challenges you anticipate when considering:

- Reaching out for expert review
- Identifying Validation Items
- Cognitive testing and piloting
- Field Testing for Validity and Reliability

2. What might be some ways of overcoming them?



Remember!!

A measure may be reliable but not capture the target concept
(*not valid*)

A measure may capture the concept *but not reliable*,
which may also compromise validity

Good Measures need to be reliable and valid!



Questions?



Quick Poll!

Post-Test Question



Connecting and Disseminating

- Use the EMERGE platform! Its free to use and we are adding several features to the website soon.

<https://emerge.ucsd.edu/>

- Register with the site and to receive updates on developments in the field.
- Goal: to profile researchers/users and measures development



Stay in touch!



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evidence of what works in gender & digital health, for whom and in which contexts

See the webinars here:
<https://go.unu.edu/udlvh>

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EMERGE @EMERGE_GEH · 8 Sep

Listen to @genderhealthhub's Think Piece podcast series featuring Dr. Anju Maholtra from @UNU_IIGH on conversations aimed at improving gender equality and global health!

Gender & Health Hub @genderhealthhub

Many "gender transformative" programs are overly optimistic and disregard the potential alternative—and especially ineffective or negative—paths and outcomes that could follow from the interventions they implement.

Read more: <https://go.unu.edu/fCBmP>

#GenderEquality

3 7 Twitter

Measuring Women's Political Empowerment: the Women's Empowerment as Political Citizens Index

September 2, 2021

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Adolescents' Sexual Behaviors and Needs in India: Barriers to Effective Evidence

July 30, 2021

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