

INDICATOR ANALYSIS

PROPORTION OF WOMEN WHO OWN A MOBILE PHONE

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How is the indicator calculated	<p>This indicator is measured by the number of women who own a mobile phone expressed as a proportion of the total number of women (1). Thus, the indicator is calculated in the following manner:</p> <ul style="list-style-type: none"> • P = the population proportion • x = the number of women who own a mobile phone • n = the total number of women <p style="text-align: center;"><i>Indicator Formula: $P = x/n$</i></p>
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GLOBAL TRENDS

What are the global patterns for this indicator? Trends, geographic patterns etc.	<p>Global trends indicate that mobile phone networks have spread rapidly over the last decade, and that the number of mobile phone subscriptions is nearly equal to the number of the people living on earth. Indeed, the majority of countries have 90% or greater of their territory covered by mobile networks (2). However, not every person within these countries uses or owns a mobile phone. In particular, existing data on individuals who own a mobile phone, disaggregated by sex, suggests that fewer women than men own a mobile phone in every continent (3). Furthermore, mobile phone ownership tends to be significantly higher among younger women (15–34 years old) than older women (35 and older) (3).</p>
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UTILITY

What does the indicator measure?	<p>This indicator measures the proportion of women who have access to mobile phones (phones given by employers and phones not officially owned under women's names are included). Thus, it may also measure the degree to which women have equal access to information, communication, and technology. In this way, this indicator may also serve as a measure of gender equality in a particular country/region.</p>
What does it <i>not</i> measure - what does it miss?	<p>This indicator does not measure:</p> <ol style="list-style-type: none"> a) Whether or not women who own a mobile phone can actually make use of the device b) Whether mobile networks are sufficiently reliable/available c) Whether or not women previously owned a mobile phone even if they do not currently own one

AVAILABILITY

Sources for indicator (CRVS, DHS etc.);	<p>The International Telecommunications Union (ITU) collects data on this indicator through an annual questionnaire that it sends to the heads of the National Statistical Offices (5). National Statistical Offices then conduct domestic household surveys. Subsequently, the results of these surveys are provided to the ITU. The ITU then publishes the results of the data in December of each year. If there are any missing values reported from countries, the ITU seeks to find them in pre-existing online databases (5).</p> <p>Indicator data are available from the following sources:</p> <p>1. ITU database (country level 2013-2018): https://www.itu.int/en/ITU-D/Statistics/Pages/SDGs-ITU-ICT-indicators.aspx</p> <p>Global SDG indicator database (country level 2014-2020): https://unstats.un.org/sdgs/UNSDG/IndDatabasePage</p>
Dates available;	Data on very few countries was collected between 2013 and 2015. Data on an increasing number of countries has been collected since 2015.
Availability across geographic areas;	As mobile infrastructure becomes increasingly available in an increasing number of countries, availability across geographic areas is also rising. Data is currently available in most regions but remains limited in Central Africa.
Availability in conflict affected settings;	Data availability in conflict affected settings is very limited: Yemen (No Data); South Sudan (No Data); Libya (No data); Somalia (No data), DRC (2018), Afghanistan (No Data), Syria (No Data)

GRANULARITY	
<i>Disaggregation at national level</i>	
Data disaggregated by sex;	N/A
Data disaggregated by identity group (race, ethnicity);	No
Data disaggregated by income,	No

Data disaggregated by citizenship;	No
Data disaggregated by migration background,	No
<i>Disaggregation at sub-national level</i>	
Data disaggregated by identity group (race, ethnicity);	No
Data disaggregated by income	No

SOURCES OF BIAS	
What bias can exist with this data?	<p><i>Selection bias:</i> the indicator may not be an accurate representation of the entire population, as it does not include women who have access to unregistered cellphones, or, on the other hand, may include women who are registered as owning a mobile phone but who do not actually have access to its use.</p> <p><i>Social Desirability Bias:</i> sometimes, respondents seek to gain the approval of the person/institution conducting the survey. For this reason, some countries may over-report the number of women who own or have access to a mobile phone.</p>

VALIDITY	
Clear and accepted international standards for indicator;	<p>Clear and accepted international standards for this indicator do exist. National Statistics Offices have agreed that, for this indicator (1):</p> <ol style="list-style-type: none"> a) an individual owns a mobile cellular phone if he/she has a mobile cellular phone device with at least one active SIM card for personal use. b) An active SIM card is a SIM card that has been used in the last three months. c) Individuals who have a mobile phone for personal use that is not registered under his/her name are also included. d) A mobile (cellular) telephone refers to a portable telephone subscribing to a public mobile telephone service using cellular technology, which provides access to the PSTN. <p>These create internationally accepted standards for the indicator.</p>
Validity of measurement of indicator generally accepted;	<p>The survey methodology is verified by the ITU to ensure that it meets adequate statistical standards (1).</p>

RELIABILITY	
Reliability of indicator generally accepted;	Each year, the data collected by the ITU is verified to check consistency with data collected in previous years. Additionally, recent data is compared with other relevant country-level indicators (such as economic and infrastructural ones), thus increasing the reliability of the data (5).

COMPLEXITY	
Enables analysis across time and location.	Because this indicator is consistently measured annually in countries, it can provide an opportunity for analysis across time and location.

OTHER REFLECTIONS	
Are indicator values imputed/modelled?	No.
Other reflections on debates, accuracy, etc.;	While the data on the proportion of women who own a mobile telephone is currently still missing for some countries, the ITU is consistently encouraging all countries to collect data on this indicator through national household surveys (1). Furthermore, the indicator is expected to be added to the Partnership on Measuring ICT for Development's Core List of Indicators (1). The number of countries with official data for this indicator is thus expected to continually increase in the future.

References

1. United Nations Statistics Division. Indicator 5.b.1 Proportion of individuals who own a mobile telephone, by sex [Internet]. United Nations Statistics Division; 2021. Available from: <https://unstats.un.org/sdgs/metadata/files/Metadata-05-0B-01.pdf>
2. Mobile network coverage by country, around the world [Internet]. TheGlobalEconomy.com. Available from: https://www.theglobaleconomy.com/rankings/Mobile_network_coverage/
3. Burjorjee DM, Bin-Humam Y. New insights on women's mobile phone ownership. Consultative Group to Assist the Poor, Washington. 2018;
4. Islam MK, Slack F. Women in rural Bangladesh: Empowered by access to mobile phones. In: Proceedings of the 9th International Conference on Theory and Practice of Electronic Governance. 2016. p. 75–84.
5. International Telecommunication Union. ITU data collection and questionnaires [Internet]. ITU. Available from: <https://www.itu.int:443/en/ITU-D/Statistics/Pages/datacollection/default.aspx>