



STATISTICS INDONESIA

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Non Communicable diseases

BPS-Statistics Indonesia

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Non-Communicable diseases

Data Source and Limitations

- A growing set of surveys, such as the WHO-supported STEPs (STEPwise approach to Surveillance) surveys, is a simple, standardized method for collecting, analysing and disseminating data in WHO member countries.
- including biomarkers that allow for important new possibilities for monitoring treatment coverage of some NCDs.
- However, currently no comparable national estimates of effective coverage of **cardiovascular disease and diabetes treatment**, nor treatment for elevated cardiovascular risk, are available.



Non-Communicable diseases

- **the prevalence of hypertension and raised blood glucose** (diabetes) are used as proxy measures, which are meaningful in their own right as indicators of both the success of prevention efforts and screening and treatment programs.
- **Non-use of tobacco** is included as an effective coverage indicator of interventions to reduce tobacco use through the health sector and in other sectors, which has large implications for the control of cardiovascular disease, chronic obstructive lung diseases, and cancer.



Non-Communicable diseases

- Finally, in addition to non-use of tobacco, **cervical cancer screening was selected as an indicator of coverage of interventions against cancer.**
- Currently, data for this indicator are very limited across countries.



Infectious Diseases indicators

- a. Treatment of cardiovascular disease : Prevalence of raised blood pressure (%)¹
- b. Management of diabetes : Prevalence of raised blood glucose (%)¹
- c. Cervical cancer screening : Cervical cancer screening among women 30-49 (%)
- d. Tobacco control : Adults age ≥ 15 years not smoking tobacco in last 30 days (%)

a. Treatment of cardiovascular disease

- Indicator definition : Age-standardized prevalence of raised blood pressure among adults aged 18+
- Numerator : Number of adults aged 18 or older with systolic blood pressure ≥ 140 mm Hg or diastolic blood pressure ≥ 90 mm Hg
- Denominator : Number of adults aged 18 or older
- Main data sources : Population-based surveys and surveillance systems



Method of measurement

- Data sources recording measured blood pressure are used (self-reported data are excluded).
- If multiple blood pressure readings are taken per participant, the first reading is dropped and the remaining readings are averaged



Method of estimation

- For producing comparable national estimates, data observations of prevalence defined in terms of alternate SBP and/or DBP cutoffs are converted into prevalence of systolic blood pressure ≥ 140 mm Hg or diastolic blood pressure ≥ 90 mm Hg using regression equations.
- A Bayesian hierarchical model is then fitted to these data to calculate age-sex-year-country specific prevalences, which accounts for national vs. subnational data sources, urban vs. rural data sources, and allows for variation in prevalence across age and sex.
- Age-standardized estimates are then produced by applying the crude estimates to the WHO Standard Population.



Noted

As more data become available, this indicator will likely be replaced by the fraction of population with **hypertension receiving effective treatment**.

For now, prevalence of raised blood pressure is used as a proxy.



b. Management of diabetes

- **Indicator definition** : Age-standardized prevalence of raised blood glucose among adults 18+
- **Numerator** : Number of adults aged 18 or older with fasting plasma glucose ≥ 7.0 mmol/l or on medication for raised blood glucose
- **Denominator** : Number of adults aged 18 or older
- **Main data sources** : Population-based surveys and surveillance systems



Method of measurement

- Fasting plasma glucose (FPG) levels are determined by taking a blood sample from participants who have fasted for at least 8 hours.
- Other related bio-indicators can also be incorporated into estimates (see below), in particular the two-hour oral glucose tolerance test (OGTT) or hemoglobin A1c (HbA1c) percentage.
- Self-reported data on diabetes diagnosis are excluded, but self-reported data are used for identifying whether or not a respondent is currently on medication for raised blood glucose.



Method of estimation

For producing comparable national estimates, data observations of diabetes prevalence defined in terms of FPG, OGTT, HbA1c, or combinations therein, are all converted into diabetes prevalence in terms of FPG ≥ 7.0 mmol/l.

A Bayesian hierarchical model is then fitted to these data to calculate age-sex-year-country specific prevalences, which accounts for national vs. subnational data sources, urban vs. rural data sources, and allows for variation in prevalence across age and sex.

Age-standardized estimates are then produced by applying the crude estimates to the WHO Standard Population.



Noted

As more data become available, this indicator will likely be replaced by the fraction of **population with diabetes receiving effective treatment**.

For now, prevalence of raised blood glucose is used as a proxy.

c. Cervical cancer screening

- Indicator definition : Percentage of women aged 30–49 years who report ever having been screened for cervical cancer
- Numerator : Number of women aged 30–49 years who report ever having had a screening test for cervical cancer using any of these methods: VIA, pap smear and HPV test.
- Denominator : All women aged 30-49 years
- Main data sources : Population-based surveys



Method of measurement

Self-reported data on respondents' cervical cancer screening history are collected through surveys.



Method of estimation

There are currently no comparable estimates of cervical cancer screening coverage.



Noted

There are currently few countries with recent data for this indicator and it is therefore excluded from the 2016 UHC service coverage index calculations.

An additional challenge for international comparability is that data sources may use different time periods (ever screened vs. screened in past 5 years) and different age groups.

d. Tobacco control

- Indicator definition : Age-standardized prevalence of adults ≥ 15 years not smoking tobacco in last 30 days
- Numerator : Adults 15 years and older who have not smoked tobacco in the last 30 days
- Denominator : Adults 15 years and older
- Main data sources : Household surveys
- Method of measurement “Current tobacco smoking” includes cigarettes, cigars, pipes or any other smoked tobacco products used in the past 30 days. Data are collected via self-report in surveys.



Method of measurement

- Current tobacco smoking" includes cigarettes, cigars, pipes or any other smoked tobacco products used in the past 30 days.
- Data are collected via self-report in surveys.



Method of estimation

WHO estimates prevalence of current tobacco (non) smoking with a negative binomial meta-regression model, which generates comparable estimates by adjusting for differences in age groups and indicator definition across national surveys included in the analysis.

These estimates are done separately for men and women.



Noted

Prevalence of not smoking tobacco is computed as 1 minus the prevalence of tobacco smoking.



Thank you

Terima Kasih



*Time For
Practicing*