# Why do we need population health surveys?

## Por que precisamos de inquéritos populacionais sobre saúde?

## ¿Por qué necesitamos encuestas de salud poblacionales?

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Brazil has made great progress in the last 50 years in terms of the coverage and quality of its health information systems. The country's birth and death records have achieved practically universal coverage, with increasing quality over time. The hospital information systems, systems based on primary care networks, special surveillance systems (for example, on nutrition and respiratory diseases), and information systems on vaccinations, among others, have contributed to monitoring health indicators throughout the country. Clear examples of the systems' importance and agility have been provided during the COVID-19 pandemic, when data from the Brazilian Mortality Information System (SIM), Brazilian Information System on Influenza Epidemiological Surveillance (SIVEP-Gripe), and data on vaccination coverage from the Brazilian National Immunization Program (PNI) have allowed monitoring the pandemic's progression and led to numerous scientific articles published virtually in real time.

To complement the data produced routinely by the health information systems, it is essential to also rely on population-based surveys. Using standardized sampling methodology, questionnaires, and measurement of biological parameters (anthropometry and collection of samples for lab tests), surveys allow measuring the frequency of health problems that are not always serious enough to result in use of health services or death (when they would be detected by the routine information systems). Drawing on the familiar iceberg analogy, surveys allow understanding what is happening under the water level, whereas routine information systems report what is visible above water. Primary data from surveys and routine secondary data complement each other and allow a more complete understanding of a country's health situation.

Population surveys have at least four more advantages over routine data. First, they allow measuring behaviors that influence health habits, as shown clearly in articles on smoking, obesity, diet, and alcohol consumption, all included in the current *Supplement* of CSP. Second, they allow understanding patterns in the use of healthcare services for important diseases such as hypertension and diabetes, discussed in two other articles published here; returning to the iceberg metaphor, these analyses quantify and elucidate the nature of what is occurring below what is detected by routine notification systems. Third, the application of standardized questionnaires in the population allows measuring health problems that result in major burdens of disease but are not evident in the mortality or morbidity systems; clear examples are mental health and musculoskeletal disorders, also discussed in this *Supplement*. Finally, through direct collection of information on socioeconomic status, schooling,

gender, and ethnicity, surveys allow stratifying all the indicators studied in population subgroups, revealing and monitoring health inequalities. Whoever has attempted to perform analyses of routinely collected data on social stratification and ethnicity knows how frustrating it can be to use databases in which the definitions are imprecise and there is often a high proportion of records that fail to present valid data. One strength of this special edition is its emphasis on social inequalities. Importantly, Brazil, compared to all the other countries I know, is a highly positive example of the way research in Collective Health has prioritized the study of inequalities.

I conducted my first population survey in 1982 as part of my PhD dissertation [1] on infant mortality and undernutrition in geographic areas with small land holdings and latifundia in the State of Rio Grande do Sul, Brazil. Since then, I have had the opportunity to contribute to children's health and nutrition surveys in nine States of Northeast Brazil (1986-1991) and later to join a group of four researchers that performed the original design for the *Multiple Indicator Cluster Surveys* (MICS) in 1994, a series of standardized surveys that have included more than 350 surveys in 115 countries so far [2]. I am thus an unconditional admirer of surveys such as the *Brazilian National Health Survey* (PNS).

I conclude this brief note by saluting the researchers involved in the PNS, the administration of the Brazilian Ministry of Health that supported it, and especially my colleagues who have written the articles in this *Supplement*. I hope that the scientific knowledge shared here will be used to back actions in our Brazilian Unified National Health System. All of us scientists and researchers are aware of the difficulties we face in a denialist environment, but we are hopeful that in a not-so-distant future, science, research, and Collective Health will once again be respected and prioritized.

## Additional information

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## References

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