

## Background

An increasing amount of epidemiological research, an increasing number of epidemiologists and epidemiological training have raised the issue of criteria for **competence of epidemiological professionals**.

Building a set of required competencies has become more complex due to the **increasing scientific content of Epidemiology**, the **enlarging scope of epidemiological research** and its' **multidisciplinary and growing social responsibilities**.<sup>1,3</sup>

In this study, competencies are understood as a *combination of knowledge, skills and abilities that a professional should demonstrate and that are critical to perform work effectively*.<sup>2</sup>

### This study aims:

To characterize Portuguese national epidemiological practice, through the evaluation of perceived experience and training needs on core competencies on Epidemiology, by Portuguese practicing epidemiologists.

## Methods

In the first phase of the project, an **adapted Delphi panel** was conducted to define the core competencies in Epidemiology.

Portuguese researchers in diverse Epidemiology areas were identified as **experts**, and invited to **review the list**.

After two consensus rounds, an experienced coordinator of educational programs was asked to verify the formal definition of each competency.

**Table 1. Study stages**

		Jan. – Jul. 08	Nov. 11 – Jan. 12	Feb. – Nov. 12
1	- Review of international portfolios			
	- Elaboration of the first draft list of competences			
2	- Invitation and online survey application to the panel of experts			
	- Analysis of results			
	- Review of the list			
3	- Invitation and online survey application to the professionals in the area of Epidemiology			
	- Analysis of results			

The list of core competencies and questions about academic and professional experience were combined into an **online questionnaire**.

**Snowball sampling process:** Teaching, clinical, research and health administration institutions were facilitators on the identification of subjects with practice in Epidemiology. Each participant will be asked to forward the questionnaire link to all contacts that use epidemiological methods in their clinical, decision-making, research or teaching practice.

Descriptive statistics were used to characterize the participants in terms of the socio-demographic characteristics, academic and professional background.

### References:

- Working Group on European Competence Criteria for Epidemiology (WG-ECCE) for the European Group of the International Epidemiological Association. European Competence Criteria for Epidemiology - A Discussion Document. 2000.
- Ceitol M. Enquadramento geral e perspectivas de base sobre o conceito de competências. In Ceitol M. Gestão e Desenvolvimento de Competências. Edições Sílabo 2007
- ECDC. Core competencies in epidemiology: surveillance and response – meeting report. Stockholm, 31 January 2007

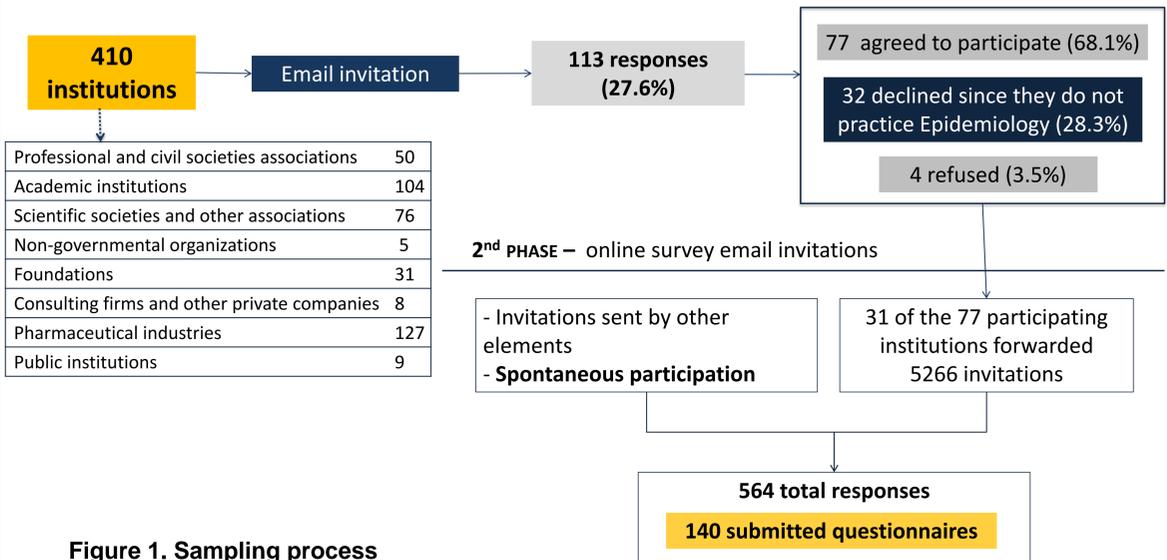
### Acknowledgements:

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## Results

### Building a list of competencies in Epidemiology

In the first phase, 19 (90.5%) of the 21 invited experts, agreed to participate. The 87 competency list was reviewed by the expert panel that suggested 15 new competencies and the exclusion of 8. After the verification of the competencies' formal definition, the final questionnaire includes 76 competencies grouped into 8 domains.



**Figure 1. Sampling process**

Of the 140 submitted responses, 125 (89.3%) valid questionnaires were analyzed: 75 (60.0%) of the respondents were women, with a mean age of 41.4±10.9 years. The majority of the individuals had Portuguese nationality (97.6%). Academic and professional experience related variables are presented in **table 2**.

**Table 2. Characterization of participants by academic and professional experience (preliminary data)**

Variables	
<b>Highest level of education</b>	
Licentiate degree, n (%)	46 (36.8)
Master's degree, n (%)	50 (40.0)
PhD or Postdoctoral degree, n (%)	29 (23.2)
<b>Attendance of Postgraduate Epidemiology courses, n (% yes)</b>	62 (49.6)
<b>Years of Epidemiology experience (mean±sd)</b>	10.2 ± 7.8
<b>"Are you currently practicing Epidemiology?" , n (% yes)</b>	101 (80.8)
<b>"Where do you practice Epidemiology?"*</b>	
Public Institution of Higher Education, n (%)	48 (38.4)
Private Institution of Higher Education, n (%)	13 (10.4)
Public Institute of Health, n (%)	44 (35.2)
Pharmaceutical Industry, n (%)	6 (4.8)
Other private institution, n (%)	12 (9.6)
Other, n (%)	5 (4.0)

\* Respondents could select more than one option

Regarding the published articles, 47.2% reported to have published articles in a national peer reviewed journal, and 49.2% reported to have published articles in an international peer reviewed journal. The majority of respondents (90.4%) reported being necessary the recognition of Epidemiology **training** by the professional groups, and 84.0% reported being necessary the recognition of Epidemiology **experience**.

## Discussion and Conclusions

This preliminary analysis provides a first characterization of the Epidemiology professionals regarding the academic and professional experience.

In future analysis, differences and agreement between training, practices and competencies on Epidemiology will be evaluated as the identification of training priorities in this area.