Global Mapping of Health Policy and Systems Research Training

Tara Tancred
Meike Schleiff
David H. Peters
Dina Balabanova

February 2015
The Teaching and Learning Health Policy and Systems Research Thematic Working Group, Health Systems Global

Lead authors: Tara Tancred, Meike Schleiff, David H. Peters, and Dina Balabanova

Other contributors: Taghreed Adam, Prea Gulati, and Maryam Bigdeli
Acknowledgements

The analysis presented in this report was carried out by Health Systems Global’s Thematic Working Group on Teaching and Learning Health Policy and Systems Research (of which the authors are members) with financial support from the Alliance for Health Policy and Systems Research.

We would like to thank all respondents who took time to contribute and enrich the report. We are also grateful to the members of the Thematic Working Group on Teaching and Learning Health Policy and Systems Research who provided inspiration and helped to extend the reach of the study. The report also benefited from advice and review by many Health Systems Global members, to whom we are indebted.
Contents

Tables and figures................................................................................................................5
Executive summary............................................................................................................... 6
Introduction .......................................................................................................................... 9
Study aim and objectives .................................................................................................. 11
Study methods ................................................................................................................... 12
Results................................................................................................................................ 16
Respondent overview ....................................................................................................... 16
Institutional-level results ................................................................................................. 17
  Competencies .................................................................................................................... 19
Course-level results .......................................................................................................... 20
  Geographical distribution of courses ............................................................................. 20
  Format of course delivery ............................................................................................... 21
  Course type and timing .................................................................................................... 22
  Language of instruction .................................................................................................... 23
  Teaching formats .............................................................................................................. 24
  Disciplines ......................................................................................................................... 25
Research methods taught ................................................................................................. 30
  Target audiences .............................................................................................................. 33
  Evaluation of students ...................................................................................................... 35
  Post-training follow-up of students ................................................................................. 36
Challenges in teaching HPSR .......................................................................................... 37
Opportunities for expanding capacity in HPSR ............................................................... 38
Conclusions ....................................................................................................................... 40
  The gaps in HPSR training .............................................................................................. 40
  Study limitations .............................................................................................................. 42
  The way forward ............................................................................................................. 43
References ......................................................................................................................... 44
Appendices ......................................................................................................................... 45
  In-depth interview guide ................................................................................................. 45
  Online Survey .................................................................................................................. 49
Tables and figures

Table 1 Number of HPSR courses per institution, by institution type ........................................ 18
Table 2 Existence of institutional HPSR competencies, by institution type ....................... 19
Table 3 Format of course delivery by type of institution ......................................................... 21
Table 4 Course duration by type of institution ........................................................................ 22
Table 5 Count and percentage of disciplinary backgrounds from which HPSR courses are offered, by country income ................................................................. 26

Figure 1 Overview of online survey respondents ........................................................................ 16
Figure 2 Map of locations of respondent institutions ............................................................... 17
Figure 3 Institution type by country income ............................................................................... 18
Figure 4 Map of locations of HPSR courses (subset of Figure 2) ............................................ 20
Figure 5 Percentage of HPSR training courses, by region ....................................................... 20
Figure 6 Percentage of courses offered as part of a semester/term or as a short course, by country income ......................................................................................... 23
Figure 7 Language of HPSR course instruction ........................................................................ 23
Figure 8 Most commonly reported (among LMIC respondents) teaching formats in HPSR courses ........................................................................................................... 24
Figure 9 Most commonly reported disciplinary orientation of HPSR courses ....................... 26
Figure 10 Most commonly reported content in HPSR courses ............................................... 28
Figure 11 Most commonly reported learning objectives of HPSR courses ............................. 29
Figure 12 Percentage of respondents reporting any quantitative or qualitative methods taught in their HPSR course ................................................................................ 31
Figure 13 Most commonly reported (among LMIC respondents) quantitative methods taught in HPSR courses .................................................................................... 32
Figure 14 Most commonly reported (among LMIC respondents) qualitative and mixed methods taught in HPSR courses ............................................................................. 33
Figure 15 Most commonly reported (among LMIC respondents) student audiences of HPSR courses ........................................................................................................... 34
Figure 16 Most commonly reported (among LMIC respondents) evaluation methods used in HPSR courses .............................................................................................. 35
Figure 17 Most commonly reported methods of follow-up for alumni ................................... 36
Executive summary

Many international institutions are increasingly recognizing the importance of developing health policy and systems research (HPSR) capacity to support health systems. The Alliance for Health Policy and Systems Research (AHPSR) has prioritized support for training in HPSR to expand capacity, and is currently developing a programme of work to progress towards this goal. To support this process, AHPSR commissioned a global mapping study of current teaching and training programmes focused on HPSR relevant to low- and middle-income countries (LMICs). It intended to assess their reach and diversity in terms of content and modalities, identifying major gaps and opportunities to expand HPSR teaching capacity. The study was conducted through the Health Systems Global Thematic Working Group on Teaching and Learning Health Policy and Systems Research.

The study employed an online survey and subsequently sought to interpret its key findings through in-depth key informant interviews. In the survey, 191 respondents provided information about HPSR courses, representing 169 different organizations from 59 countries. The majority of respondents were from academic organizations (60% of respondents from LMICs and 79% of respondents from high-income countries (HICs) were from academic institutions). From these, 112 respondents—some of whom were involved in more than one course—reported on 152 HPSR courses.

Institutional-level responses
From respondents whose institutions offered courses relevant to HPSR, 59% (110) reported that there were institutional-level competencies related to HPSR. Many of these courses were offered as part of master of public health programmes.

Course-level responses
Geographical distribution
HPSR courses were reportedly taught in 42 countries, representing every WHO region (see Figure 4): 19% of courses were based in Africa, 24% in the Americas, 1% in the Eastern Mediterranean, 31% in Europe, 16% in Southeast Asia, and 9% in the Western Pacific.

Format of course delivery
Courses were primarily offered onsite (80%), with only 12% of courses being offered online; 8% of courses were offered both onsite and online.

Course type and timing
The majority of HPSR courses (66%) were offered during an academic term as part of a larger degree programme. However, this finding was more common in HICs, where 79% of courses were term/semester-long compared to only 54% in LMICs, where more courses were offered as short courses (22%) than in HICs (10%).

Language of instruction
Courses were taught primarily in English (76%), though some were taught in two languages with English as the primary language (8%), and 16% were offered only in other languages.
**Teaching format used**
The majority of courses used traditional teaching formats in academic settings. Classroom lectures predominated, followed by independent reading, case studies, small group seminars, and group projects. Insights from key informant interviews added further explanation of these findings, suggesting that, despite a focus on traditional teaching methods, these often involved real-life examples, and an effort to demonstrate the practical application of the material taught as much as possible.

**Disciplines from which HPSR courses are offered**
Training was offered from a wide range of disciplines, most notably public health, health policy, and global/international health.

**Course content**
HPSR course content was very diverse. Many respondents described course content that focused on understanding or managing health systems, and not necessarily on research related to health policy and health systems. However, the most commonly reported course content included: health systems research methods, health systems management, policy analysis, research projects in HPSR, and an overview of health systems.

**Learning objectives**
Seventy-six per cent of respondents provided learning objectives for the health policy and systems research courses they are part of. The ability to: frame health systems research questions, develop a research proposal, conduct policy analysis, use data/evidence, and identify methods to answer research questions were the top five most commonly cited objectives.

**Research methods taught**
The majority of both qualitative and quantitative research methods taught were either generic research methods, or methods usually taught within specific disciplines (e.g. epidemiology or ethnography) rather than distinct HPSR methods. Eighty-three per cent of courses taught at least one quantitative research method and at least one qualitative research method. In LMICs, respondents reported quantitative research methods being taught in 75% of the courses, which is similar to that of HICs (69%).

**Target audiences**
The primary audience of most HPSR courses was masters’ students, followed by doctoral students, health organization managers, policy-makers, and practising researchers. Key informants felt that health ministry staff, public health professionals, and practising physicians are audiences that should be targeted through training in HPSR.

**Evaluation of students**
Presentations, exams, research projects, reports, and essays were the most commonly used means of evaluating students. Key informants elaborated on these findings, suggesting that many instructors aim to assess whether actual capacity to apply knowledge—rather than simply memorize information—had been achieved.
Follow-up and mentorship of students
Only 40% of respondents reported following-up with students after they had completed their studies in a course relevant to HPSR. Alumni surveys and networks were used most frequently to follow-up with former students. Key informants highlighted that this area is felt to be of particular importance and is one that many instructors would like to develop.

Challenges in teaching HPSR
Key informant interviews were used to explore challenges in teaching HPSR. Two main challenges were identified: the first is the lack of a supportive institutional environment to offer training, which includes an insufficient number of instructors and potential PhD supervisors. The second is the sense that HPSR lacks legitimacy beyond its own circles, resulting in little demand for it.

Opportunities for expanding capacity in HPSR
Key informants also highlighted strategies to expand capacity in HPSR, which included developing further research networks that link institutions, both to do research and exchange ideas and materials around teaching practices. Additionally, creating demand for HPSR was seen as critical for expanding capacity, both among consumers of HPSR (e.g. policy-makers and research funders) and within academic institutions.

Conclusion: the gaps in HPSR courses
• Competencies: there is a lack of an agreed upon scope of HPSR competencies that training should aim to build.
• Geographical and language gaps: Some regions are particularly under-represented regarding HPSR training, most notably the Eastern Mediterranean as well as Latin America, Central and Eastern Europe, and the former Soviet Union. There is also a clear gap in terms of the existence of non-English language HPSR courses.
• Institutional gaps: Many institutions lack a sufficient number of instructors with the capacity to train HSPR and supervise doctoral students. Collaboration across disciplines was recognized as being very valuable, but challenging to achieve. Finally, the lack of demand for HPSR was reiterated.
• Course content: training in the methodological breadth that HPSR necessitates is challenging and further increases the need for multidisciplinary collaboration; academic and other training institutions may lack the incentives to seek such partnerships.
• Target audiences: There is a need to target frontline workers and ministry staff who may not be able to undertake a full master’s degree. Different means of providing HPSR training for health professionals with full-time jobs need to be considered.

The way forward
This report suggests that defining individual HPSR competencies and organizational capacities is an important step in building the field of training for HPSR. Furthermore, training courses and resources need to be developed in languages other than English.

An updated list of HPSR courses globally and a repository of teaching materials should be developed such that instructors of HPSR can draw on these resources. Finally, networks of exchange, cross-learning, and mutual support among instructors of HPSR should be promoted to facilitate engagement around best teaching practices.
Introduction

Health systems play a critical role in the health and wellbeing of individuals. Health policy and systems research (HPSR) is considered essential to help build capacity to assess health system functioning and, ultimately, to improve health outcomes and access to health care. The World Health Report 2013 emphasized the critical role of health systems research for guiding the move towards universal health coverage.

The field of HPSR is often distinguished by the research questions that are asked, regardless of the discipline and the specific thematic area of focus that researchers might come from. HPSR teaching may be from the perspective of disciplines such as epidemiology, policy analysis, or anthropology, among others. However, the research questions dictate the study design and methodological and analytical approaches used. These questions are often concerned not just with “what” is the effect of certain policies and interventions but also “why” and “how” these have been implemented, and may be associated with particular outcomes. These questions may encompass issues relevant to health services, health promotion, and the policies and politics of health systems’ strengthening. Finally, HPSR is often intended to respond to immediate policy and practice concerns and generate lessons that can be applied.

There is a perception that there are significant capacity gaps in HPSR teaching globally and that available courses are not adequately preparing students to conduct HPSR. Moreover, there is limited support for developing courses and building teaching capacities, and very little sharing of existing experience to contribute to enhanced learning. At the same time, a tremendous amount of untapped expertise and innovation has emerged in recent years, especially in low- and middle-income countries (LMICs), which may be beneficial across other settings, including in high-income countries (HICs). Although efforts have been made to develop new HPSR courses and training programmes worldwide, much of this work is occurring in isolation.

Many international institutions are increasingly emphasizing the importance of developing HPSR courses to support health systems. The Alliance for Health Policy and Systems Research (AHPSR) recognizes that the support of training around HPSR is critical for expanding capacity to conduct HPSR globally and is currently seeking to develop a programme of work in this area. The newly established International Society for Health Systems Research (Health Systems Global), and its Thematic Working Group on Teaching and Learning has received considerable feedback from its members and others on the urgent need for support of strategies to improve HPSR training in various contexts and for various users.

While there is a shared understanding that access to HPSR training and teaching resources should be expanded and reciprocal learning promoted, currently there is a paucity of evidence as to where the gaps and opportunities in HPSR teaching are. In response to this lack of evidence, the AHPSR commissioned a study that was conducted by the Thematic Working Group on Teaching and Learning of Health Systems Global, exploring the landscape
of HPSR training and seeking to identify constraints and opportunities around which action can be taken.

The findings of this study will feed directly into the work of the AHPSR and its establishment of a programme dedicated to HPSR training. The Thematic Working Group will also benefit, gaining insights that will enhance its HPSR teaching strategies and inform activities that are beneficial to Health Systems Global members, and to many other actors committed to health system strengthening.
**Study aim and objectives**

The overall goal of the study was to conduct a global mapping of teaching and training programmes focused on HPSR relevant to LMICs.

This study had three main objectives:

1. To conduct a global mapping study of teaching and training curricula and syllabi developed by academic, educational, and/or research institutions for HPSR relevant to LMICs, identifying the various target audiences, content, and modalities.
2. To identify the major gaps in training and to investigate the reasons for these gaps.
3. To formulate possible strategies for addressing these gaps.

Information from this study provided a basis of discussion during an expert consultation assembled by the AHPSR in November 2014 in order to identify how the AHPSR can contribute to addressing and moving beyond the gaps identified here.
Study methods

Definitions
In recent years there have been efforts to build the field of HPSR and its methods, and a wide range of definitions have been debated. This study adopted a definition of HPSR proposed within the AHSPR, drawing on a synthesis of the current literature. HPSR is defined as research that:

[seeks] to understand and improve how societies organize themselves in achieving collective health goals, and how different actors interact in the policy and implementation processes to contribute to policy outcomes ... [to create] a comprehensive picture of how health systems respond and adapt to health policies, and how health policies can shape—and be shaped by—health systems and the broader determinants of health.4

The study employed mixed methods; data were collected through an online quantitative survey and semi-structured interviews with key informants.

Sampling
Respondents to the online quantitative survey were contacted through a variety of methods, seeking to improve the reach of the study. First, the survey was distributed through several key mailing lists accompanied by information about the survey and the intended use of findings. A preliminary assessment of the lists was conducted to identify those with an explicitly stated objective to promote research and/or build capacity in HPSR. These included:

• email list of current members of Health Systems Global;
• members of relevant Thematic Working Groups of Health Systems Global;
• members of the Consortium for Health Policy and Systems Analysis in Africa (CHEPSAA)
• email lists of:
  o AHPSR;
  o Afro-Nets;
  o Health Space Asia;
  o Health Systems Research India Initiative;
  o European Observatory on Health Systems and Policies.

All respondents (including those who did not complete the survey as they did not have courses to report on or whose institutions did not offer HPSR training) were asked to identify one or more follow-up contacts to whom they felt the survey would be relevant. As such, snowball sampling was used to identify over 100 additional respondents worldwide, and these individuals were then contacted directly to complete the survey.

Additionally, the study investigators identified other respondents through their pre-existing contacts and networks of individuals involved in HPSR training, as well as through their respective institutions and institutional networks. This additional sampling was done to ensure that key institutions involved in HPSR were not missed due to their lack of initial response to recruitment emails, for example.
Finally, a manual online search of potential courses globally was conducted. We searched Google for courses in health systems or health policy using a variety of search terms
["health policy" OR "health systems" OR HSR OR HPR OR “health policy and planning”] AND [course OR module OR workshop OR seminar OR class OR lecture OR short course] AND [research]] and reviewed courses offered, especially at schools of public health, across each region. Potential respondents from these searches were contacted directly and asked to complete the survey.

All the sampling steps described above were conducted in parallel. After identifying that response rate was low in particular regions, to enhance response rate and ensure that as representative a sample as possible had been obtained, over 120 follow-up emails and reminders to potential survey respondents were sent out. Follow-up emails were sent until we collected data from respondents from all regions and key institutions known by the study investigators to offer HPSR courses.

**Survey**

**Tools and key subject areas**

The online survey was administered in English using the Survey Monkey platform, between July and September 2014. The survey was divided into two parts, the first obtaining information on features of the institutions offering teaching in HPSR, and the second exploring in more detail individual HPSR courses that respondents were directly involved in.

In the institutional section, participants were asked to identify generally how many HPSR courses were offered at their institution. HPSR was described as:

Research that asks questions that relate to real-world situations and issues that focus on health services and promoting health. It supports applied research that explicitly seeks to influence policy and has the potential to lead to health system development. Health systems research is seen as particularly well-suited to answer why or how a certain mix of structures, policies, or interventions may have shaped outcomes. It can draw on one or more disciplines and methods to answer these questions.

Issues studied include how health care is financed, organized, delivered, and used; how health policies are prioritized, developed, and implemented; and why some health systems achieve their goals and others do not. It enables a comprehensive analysis of how health systems respond and adapt to health policies, and how health policies can shape—and be shaped by—health systems and broader determinants of health. Both unintended consequences and complexity in achieving intended effects are often examined.

The subsequent questions focused on the competencies that HPSR-related programmes within their institution aimed to build in training participants, the target audiences for HPSR training, and if and how training participants are followed-up after completing HPSR training. The survey sought to distinguish between competencies and learning objectives by providing definitions:

A **competency** is the ability to apply a set of related knowledge, skills, and abilities needed to successfully perform important work functions or tasks. An educational competency is usually defined at the level of a degree or programme. In contrast, **learning objectives** are more specific and describe what the learner should be able
to achieve at the end of a course. Learning objectives say what we want the learners to know and competencies indicate how we can be certain they know it.

As a simplified example, a competency within public health programmes offered by an institution might be for students to “demonstrate cultural awareness and sensitivity”. A learning objective of a course within a public health programme with that competency might be to “identify the range of social and environmental determinants of health among indigenous populations in Northern Alberta”.

The second part of the questionnaire focused on specific courses. As the courses were the unit of analysis, we identified inclusion criteria for the courses we wished to gain more information on. We included courses or programmes from any type of institution (e.g. academic, government, or non-governmental organizations (NGOs)) that met the following criteria:

- HPSR courses, seminars, practicums, and other formally recognized educational formats that include HPSR and related terms (i.e. health systems research, health services research, health policy research, implementation research, operational research; or evaluation of the same health policy and systems terms) in the title, objectives, or descriptions; or

- courses or programmes with an explicit component on HPSR (participants self-identified this point after reading the definition of HPSR provided), but that may fall within an educational programme on health services research methods, biostatistics, epidemiology, or qualitative research methods; and

- courses in institutions in countries of all income levels, which have explicitly stated relevance to HPSR in LMICs.

To ensure that the survey responses were obtained for courses that met the inclusion criteria, participants were asked three screening questions before proceeding to the course-specific part of the survey. These were whether the course(s): 1. fitted the specified definition of HPSR; 2. taught research methodologies; and 3. had relevance to LMIC contexts. If participants answered “no” to any of those questions, they were not included. Further screening took place as responses were reviewed and survey data were cleaned, again ensuring that only courses that matched the inclusion criteria were retained.

*In-depth interviews with key informants*

Of the participants who completed the survey and indicated willingness to be contacted for follow-up, we purposively sampled key informants. We aimed to identify participants representing a broad range of regions, institution types (e.g. academic institutions, government ministries, NGOs), HPSR course content, and roles within courses. We also included individuals who were frequently suggested by other participants, through snowball sampling, and who had indicated being involved in two or more courses relevant to HPSR. We aimed to interview identified HPSR “champions” in each region, who we felt would be able to share perspectives that were representative of their respective regions.
**Analysis**

The quantitative online survey data were cleaned using Excel. Cross tabulations of the key variables by WHO geographic region, type of institution, and income level (HIC and LMIC) were conducted in SPSS, with statistical significance assessed by chi-square tests and Fisher exact tests for small samples, with a benchmark of p<0.05. Open-ended responses were summarized in tables and major themes were identified. Quantitative data were summarized through pie charts, bar graphs, or presented as tables as appropriate.

Transcripts of in-depth interviews were analysed thematically using NVivo 10 software. Transcripts were re-read several times. After familiarization with all transcripts, an overall coding frame was developed. Codes were added as the scripts were reviewed line-by-line. Relationships were drawn between codes to generate themes from the data. Further data was collected to explore divergent cases or emerging themes more fully, and interviews were continued until theoretical saturation had been reached. Key themes that emerged from the data were then illustrated in the findings section through representative quotations.

**Ethical considerations**

The Ethics Committee of the London School of Hygiene and Tropical Medicine assessed the protocol and deemed it “not human subjects research” and exempt from full ethics review. Participants were told that their consent in the online survey was implicit through their participation in the survey.

The Ethics Committee reviewed and approved the protocol for the qualitative part of this study (reference #8485). Informed consent was sought from all participants. All transcripts were anonymized by TT and identifying information was removed; transcripts were treated as confidential.
Results

Respondent overview
Overall, 306 respondents completed the online survey, of whom 191 went on to provide information about their respective institutions offering courses relevant to HPSR. Of these respondents, 140 met our inclusion criteria. After removing incomplete entries, 112 respondents went on to provide information about 152 specific HPSR courses they were directly involved with (Figure 1).

Figure 1 Overview of online survey respondents

Twenty-seven individuals were then interviewed as key informants. The respondents were from 23 countries in different geographical regions (the Americas: the United States, Cuba, Chile, and Trinidad and Tobago; Africa: Ethiopia, Kenya, Rwanda, South Africa, Uganda; the Eastern Mediterranean: Turkey, Lebanon, Iran; Europe: Switzerland, Denmark, Sweden, the United Kingdom, Italy, Germany, and Ireland; Southeast Asia: Bangladesh and India; and the Western Pacific: China and Australia).
Institutional-level results

In the survey, respondents were asked to first answer questions about their institutions and the types of HPSR-relevant courses that are offered there. The 191 respondents who provided institutional-level questions represented 169 different organizations (16 institutions having more than one respondent) from 59 countries. The map in Figure 2 indicates the locations of institutions for which data were obtained.

![Figure 2 Map of locations of respondent institutions (colours indicate WHO regions: pink = the Americas, green = Africa, yellow = Europe, blue = Eastern Mediterranean, purple = Southeast Asia, orange = Western Pacific)](image)

The map in Figure 2 shows that some regions appeared to have considerable gaps in HPSR training, having either few or no institutions offering HPSR-relevant courses. The most notable gaps were seen in the Middle East and Northern Africa (encompassed by the Eastern Mediterranean Region), the Western Pacific, and parts of the Americas, namely Latin America. Much of Eastern Europe and the former Soviet Union also stood out as almost entirely lacking institutions offering such courses.

Most respondents (122) were based at universities and other academic institutions (71%), but there were also respondents from non-academic organizations, including WHO (40, 23%), government ministries (7, 4%), and associations (4, 2%). Associations—groups or networks of institutions (e.g. CHEPSAA, which is comprised of multiple institutions)—were created as a category as there were indications that their characteristics and HPSR training capacities may be slightly different from those of training in the context of a single institution.
There were differences between HICs and LMICs in terms of what type of institutions were represented in this survey, although the absolute numbers of institution types by income level were relatively small. HPSR training in LMICs tended to be hosted less often in academic institutions (49, 61%) compared to HICs, where a large majority of relevant training took place in such settings (73, 80%). LMICs had a higher percentage of non-academic and governmental organizations (26, 32%) offering HPSR courses.

Figure 3 Institution type by country income

Overall, the majority of respondents (152, 79%) reported that their institution offered more than one course that was relevant to HPSR. Almost half (79, 46%) of the respondents indicated that their institution offered four or more courses relevant to HPSR (see Table 1).

Table 1 Number of HPSR courses per institution, by institution type

<table>
<thead>
<tr>
<th>Number of HPSR courses</th>
<th>Total # (%)</th>
<th>Academic # (%)</th>
<th>Association # (%)</th>
<th>Government agency # (%)</th>
<th>Non-academic (including WHO) # (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>36(21%)</td>
<td>23(19%)</td>
<td>1(25%)</td>
<td>1(14%)</td>
<td>11(28%)</td>
</tr>
<tr>
<td>2</td>
<td>26(15%)</td>
<td>16(13%)</td>
<td>2(50%)</td>
<td>1(14%)</td>
<td>7(18%)</td>
</tr>
<tr>
<td>3</td>
<td>15(9%)</td>
<td>12(9%)</td>
<td>0(‘s%)</td>
<td>0(0%)</td>
<td>5(13%)</td>
</tr>
<tr>
<td>4 or more</td>
<td>79(46%)</td>
<td>63(54%)</td>
<td>0(0%)</td>
<td>2(29%)</td>
<td>12(30%)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>14(8%)</td>
<td>5(4%)</td>
<td>1(25%)</td>
<td>3(43%)</td>
<td>5(13%)</td>
</tr>
<tr>
<td>Total</td>
<td>172(100%)</td>
<td>121(100%)</td>
<td>4(100%)</td>
<td>7(100%)</td>
<td>40(100%)</td>
</tr>
</tbody>
</table>

Fourty-one survey respondents represented institutions that were not currently offering courses relevant to HPSR, but indicated that they would be interested in offering such courses if the opportunity arose. Some of the reasons for this interest that were reported included:

- a need to address today’s common and complex public health problems;
- enhancing the evidence base for health policies and programmes;
- helping to build a common language for health systems’ actors to avoid misunderstanding and potential conflict;
• helping to enhance and sustain the professional development of health systems’ actors; and
• preparing students and young professionals for the kinds of work and challenges they are likely to face.

**Competencies**
The survey defined competencies for respondents. The hypothesis for investigating competencies was that many institutions will see competency-based education as an important way to train people in HPSR. Despite providing definitions and examples to respondents on the survey, confusion seemed to have remained about what competencies are and how they differ from learning objectives. Thirteen per cent of respondents answering institutional information provided only a generic institutional website that did not indicate a clear set of competencies but rather, very general programme or course information. These websites were navigated to the greatest extent possible to see if competencies were indicated anywhere, which they were not. Additionally, 11% of course respondents provided the same information for both competencies at an institutional level and learning objectives at a course level.

Of the respondents from institutions offering courses relevant to HPSR, 110 (59%) from 92 different institutions reported having programme-specific competencies.

**Table 2** Existence of institutional HPSR competencies, by institution type

<table>
<thead>
<tr>
<th>Competencies</th>
<th>Academic #(%)</th>
<th>Association #(%)</th>
<th>Government agency #(%)</th>
<th>Non-academic (including WHO) #(%)</th>
<th>Total #(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>10 (8%)</td>
<td>1 (25%)</td>
<td>1(14%)</td>
<td>10(25%)</td>
<td>22 (13%)</td>
</tr>
<tr>
<td>Yes</td>
<td>97 (81%)</td>
<td>2 (50%)</td>
<td>6 (86%)</td>
<td>26 (65%)</td>
<td>131 (76%)</td>
</tr>
<tr>
<td>Don’t know</td>
<td>13 (11%)</td>
<td>1 (25%)</td>
<td>0 (0%)</td>
<td>4 (10%)</td>
<td>18 (11%)</td>
</tr>
<tr>
<td>Total</td>
<td>120 (100%)</td>
<td>4 (100%)</td>
<td>7 (100%)</td>
<td>40 (100%)</td>
<td>171 (100%)</td>
</tr>
</tbody>
</table>

Survey respondents were asked to indicate competencies that were identified by their institutions as being key to build among their students receiving training in HPSR. A wide range of information was provided related to competencies currently established within organizations and programmes offering HPSR courses. However, as indicated above, after analysing these responses, it was probable that they were not well understood, as many responses would not be considered competencies, such as “to gain a general background in public health”, “to gain practical experience”, or “to understand policy”. The following were the most commonly stated competency areas:
- To apply leadership skills
- To design health financing arrangements and investigate health financing schemes
- To critically evaluate HPSR literature
- To use participatory research approaches

During key informant interviews, many of these competency areas were reiterated, although the role of applying critical thinking was emphasized to a greater extent than what was seen in the survey results. Please see pages 28 and 29 for more details about course-specific learning objectives.
Course-level results

Geographical distribution of courses
Out of a total of 191 participants who indicated that HPSR courses were offered at their institutions, 112 reported that they were involved with and provided information on at least one course. Of those, 40 were involved in more than one course—therefore, these 112 respondents provided information about 152 courses. The following analyses are taken from this subset of respondents. Responses on HPSR courses were received from 42 countries, representing every WHO region (see Figure 4).

The majority of HPSR courses were offered by European institutions (47, 31%), with institutions from the Eastern Mediterranean region offering the fewest courses (2, 1%), illustrated in Figure 5.

Figure 4 Map of locations of HPSR courses (subset of Figure 2)

Figure 5 Percentage of HPSR training courses, by region
Within each region, capacity was often concentrated in one or two countries. The countries from which the highest number of courses were reported included India (19, 13%), the United States (21, 14%), the United Kingdom (11, 7%), and South Africa (7, 5%). Similarly, the institutions from which the greatest number of survey respondents were involved in courses included WHO (6, 2%—most from WHO’s Special Programme for Research and Training in Tropical Diseases), Azim Premji University (5, 2%), Karolinska Institute (4, 1%), and Johns Hopkins University (3, 1%), while eight other institutions had two respondents.

**Format of course delivery**

HPSR courses were offered largely onsite (face-to-face), but some had online components or were offered entirely online.

**Table 3** Format of course delivery by type of institution

<table>
<thead>
<tr>
<th>Institution type</th>
<th>Total #(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Academic</td>
</tr>
<tr>
<td>Course interface</td>
<td>Both</td>
</tr>
<tr>
<td></td>
<td>Online</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

The proportion of courses offered onsite, online, or via both modalities between HIC and LMIC settings was almost identical. This finding suggests that bandwidth or other resource constraints may not represent a significant barrier to online and interactive teaching modalities to the extent that might have been expected.

Key informants were asked to reflect on their experiences using onsite versus online teaching or vice versa, wherever applicable. A commonly mentioned concern related to online teaching was the lack of immediate adaptability of the course delivery based on how students understand and engage with content, which is an asset of onsite teaching. Additionally, while there were indications of context-specific problems (e.g., students facing difficulties in having regular access to the internet), the major constraint to offering these types of courses related to a lack of time and incentives for the instructors. Finding trained professionals with the skills and time to facilitate these courses as well as support for the design and/or update of interactive online materials was perceived as a major challenge. Furthermore, it was understood that online learning requires a different type of commitment from the students in terms of time management and self-teaching, which is sometimes challenging.

What I noted in my experience is there is going to be a lot of hand-holding. The main difference is commitment to doing virtual learning, both from the tutor and the mentee. Because you will find that these people are very busy. If they go to the classroom, that is time out from work and they have permission, you know, explicit permission from their bosses to actually go ... It takes a lot of commitment and so the tendency is to drop it.

(LMIC respondent, university)
However, it was noted that online teaching dramatically increases accessibility of courses and enables targeting of learner populations who might otherwise not have the opportunity to receive training in HPSR. Furthermore, it was perceived that online courses were a good platform for institutional and/or multidisciplinary collaboration around strengthening HPSR training.

I think where online courses become a useful tool is when we have populations that can’t have that in-person contact at all. And I think there are huge populations around the world that don’t have access to that training ... so in the absence of that, online courses become a useful tool ... In HPSR, there’s a component of the training that is just introducing vocabulary and concepts.

(LMIC respondent, NGO/university/Ministry of Health)

I mean, one of the other advantages of online programmes is that they’re scalable and they can be used by others in another context. So, it’s ideally suited for partnership.

(HIC respondent, online teaching institution)

Despite the constraints of online teaching, many key informants saw blended learning—that is, courses offered with both onsite and online training components—as ideal, capitalizing on the benefits of both modalities.

I think the question [is] how we discover a balanced approach where you deliver some content online and at the same time you allow for that interactive, participative process, because people learn from each other as well, particularly when you have students sitting in the same room.

(LMIC respondent, university)

Course type and timing
HPSR courses varied in duration. The majority were semester/term-length, often offered as part of a degree programme. Short courses were more commonly offered in LMICs, most likely reflecting the finding that fewer academic institutions offered HPSR courses in these settings compared to HICs, as academic institutions are more likely to embed such courses within degree programmes (Figure 6).

Table 4 Course duration by type of institution

<table>
<thead>
<tr>
<th>Institution type</th>
<th>Academic</th>
<th>Association</th>
<th>Government agency</th>
<th>Total #(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-service</td>
<td>2(2%)</td>
<td>0(0%)</td>
<td>0(0%)</td>
<td>3(13%)</td>
</tr>
<tr>
<td>Independent/flexible</td>
<td>5(5%)</td>
<td>1(14%)</td>
<td>2(40%)</td>
<td>1(4%)</td>
</tr>
<tr>
<td>Other</td>
<td>8(7%)</td>
<td>1(14%)</td>
<td>0(0%)</td>
<td>1(4%)</td>
</tr>
<tr>
<td>Semester/term/degree</td>
<td>73(70%)</td>
<td>4(57%)</td>
<td>2(40%)</td>
<td>14(60%)</td>
</tr>
<tr>
<td>Short courses</td>
<td>17(16%)</td>
<td>1(14%)</td>
<td>1(20%)</td>
<td>4(17%)</td>
</tr>
<tr>
<td>Total</td>
<td>105(100%)</td>
<td>7(100%)</td>
<td>5(100%)</td>
<td>23(100%)</td>
</tr>
</tbody>
</table>
Language of instruction

Courses were taught primarily in English (76% of all courses), though some were taught in two languages with English as the primary language, and some were offered only in other languages (Figure 7). The second languages for courses taught in two languages with English as primary included French (4), Hindi or Gujarati (2), Thai (2), Georgian (2), and Odia (1). Most courses not offered in English at all were conducted in Spanish (8) or Portuguese (6). That HPSR courses were offered so predominantly in English highlights an important gap in teaching, but it could have been an artefact given that the survey was conducted in English and distributed through English-speaking networks.

Figure 6 Percentage of courses offered as part of a semester/term or as a short course, by country income

Figure 7 Language of HPSR course instruction

The predominance of English within HPSR training, publication, and spheres of academic exchange was discussed as a constraint to teaching within the field, particularly among key informants from LMIC settings where English is not widely spoken.

One [barrier to HPSR teaching] is the language, but the second [barrier] is about an academic culture. We are not so collaborative.

(HIC respondent, university)
Teaching formats

The HPSR teaching courses captured by the study used a variety of teaching formats. The majority reflected traditional teaching methods established in academic settings. Thus, classroom lectures predominated, followed by independent reading, case studies, small group seminars, and group projects. A wide variety of teaching methods were used for students to apply knowledge to particular problems, such as research projects (48%), problem sets (33%), and simulations (not shown, 16%).

There was no difference in the use of these methods in LMIC or HIC settings, with the exception of “flipped classrooms” (in which students are given materials related to content ahead of time and are expected to self-study—often with online materials such as recorded lectures—and time in the classroom is often spent engaging in discussions, activities, and peer learning) (LMICs: 13%; HICs: 32%; p=0.006). Other teaching formats not shown on the graph below included: practicums or internships (LMICs: 15%; HICs: 12%); use of closed-access online materials (LMICs: 12%; HICs: 20%); and open-access online materials (LMICs: 5%; HICs: 12%).

![Graph showing percentage of respondents reporting format used](image)

**Figure 8** Most commonly reported (among LMIC respondents) teaching formats in HPSR courses

The qualitative data added important nuances to these findings. Whereas classroom lectures may be seemingly didactic, they often aim to operationalize and apply abstract concepts. Most key informants emphasized the importance of bringing real-life examples into HPSR teaching. Some examples of teaching formats that were perceived to be of value by key informants included exposing students to “the field”, enabling them to identify their own question or project, and encouraging them to engage with policy actors—often through simulations or role-play—helping them to see how HPSR may inform policy and practice.

I think fieldwork, other group work and those things that you mentioned are useful of course, but going to the field and actually seeing how a health system works is more important. Or doing some real health systems work, understanding the drug market, how it is produced and distributed—those sorts of things are very useful. Or just going to a hospital or primary centre and seeing how it actually functions in real life and what are the constraints.

(LMIC respondent, university/NGO)
Key informants provided a lot of illuminating detail about how they incorporate real-life scenarios into their teaching. Role-playing was cited regularly.

We’re also running a half-day role-play for that course and it’s based on a series of articles published by WHO and it kind of repeats a real meeting that took place, where we bring together the technical experts—this is about setting up a global action plan for pneumonia control. So it’s bringing together technical experts of different kinds of interventions, so it’s doctor so-and-so on nutrition and the health economist with different perspectives. And at the same time it brings together the funders as well: World Bank, Bill and Melinda Gates are usually present in our role-play—not in real life! WHO, UNICEF ... it’s really interesting. They get to see what they can fund and what they cannot fund, what they can support and what they cannot support. And you read it and see the struggle, which is very much like real life, between the scientists on the one hand with their own vested interests and the policy-makers and the funders on the other hand with their specific interests.

(HIC respondent, university)

Furthermore, recognizing that many students within HPSR courses bring in a considerable amount of expertise, peer-to-peer learning—often through various forms of interactive group work—was seen as being of great importance within the field of HPSR. Working collaboratively across disciplines was also seen as an essential principle underlying effective HPSR training—therefore, equipping students with the skills to do so was seen as important, and group work was a key facilitator of developing those skills.

If you do have people who bring relevant experience and if you do structure your teaching in ways that draw on that, it may not be as good as the perfect field studies, but it’s a lot better than the textbook-based teaching in this area!

(HIC researcher, university)

Disciplines
A key finding is that HPSR courses are thought of as multidisciplinary and often fall within a broader degree programme or set of courses that teach content informed by many disciplines. Respondents were given the opportunity to identify more than one discipline or field of study that contributes to the core content of the HPSR training they are involved in. Figure 9 indicates the most common disciplines underpinning the HPSR courses noted in the survey. Respondents indicated that many courses were offered from an HPSR disciplinary perspective, however, that was typically in addition to selecting one or more field of study like public health, or more specific disciplines like epidemiology or anthropology, highlighting the interdisciplinary nature of HPSR.
Figure 9 Most commonly reported disciplinary orientation of HPSR courses

Of note is that, although a discipline like public health is very broad and encompasses other sub-disciplines like epidemiology or biostatistics, in some instances courses were clearly offered from one of the latter more specific sub-disciplines. As such, we were interested in seeing these disciplines adequately drawn out. Additionally, although HPSR is not considered by many to be a standalone discipline as of yet, participants were given the option to select one or more disciplinary backgrounds for the courses they provided responses for. Many participants selected more than one discipline, including HPSR, suggesting that this “discipline”, as it emerges, is really one that is multi-disciplinary in nature, as reflected by the breadth of disciplines from which it is taught.

Table 5 Count and percentage of disciplinary backgrounds from which HPSR courses are offered, by country income

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Country income</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HIC</td>
<td>LMIC</td>
</tr>
<tr>
<td>Anthropology</td>
<td>12(19%)</td>
<td>10(12%)</td>
</tr>
<tr>
<td>Biostatistics</td>
<td>11(17%)</td>
<td>20(25%)</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>19(27%)</td>
<td>29(36%)</td>
</tr>
<tr>
<td>Global/international health</td>
<td>35(55%)</td>
<td>29(36%)</td>
</tr>
<tr>
<td>Health economics</td>
<td>29(45%)</td>
<td>25(31%)</td>
</tr>
<tr>
<td>HPSR</td>
<td>62(98%)</td>
<td>71(91%)</td>
</tr>
<tr>
<td>Political science</td>
<td>14(22%)</td>
<td>11(14%)</td>
</tr>
<tr>
<td>Public health</td>
<td>39(61%)</td>
<td>59(73%)</td>
</tr>
<tr>
<td>Sociology</td>
<td>13(20%)</td>
<td>14(17%)</td>
</tr>
<tr>
<td>Other</td>
<td>9(14%)</td>
<td>7(8%)</td>
</tr>
</tbody>
</table>
Key informant interviews touched on the issue of bringing multidisciplinary viewpoints into their teaching around HPSR. Many indicated that this was difficult for a number of reasons, including that they already felt that they had too little time for the HPSR-relevant materials they aimed to cover without bringing in materials across different disciplines. A lack of connections within their institutions or with potential collaborators from other disciplines was an additional challenge.

I have to say we’re not doing much on that, and we’re not—this is one of the gaps maybe—we’re not helping out students on how to frame questions taking into consideration different disciplines.

(LMIC respondent, university)

Furthermore, the pressure to publish within a particular discipline and generally being conditioned to working from within their own silos of expertise through their institutional environments were also identified as barriers to multidisciplinary work and teaching these different viewpoints.

There is a particular approach to methods and rigour that has been developed over decades in epidemiology that has very clear rules. So in a way you’re asking people to question those rules in some domains of research. Then even in approaches to qualitative research, it’s becoming very rule-bound. What’s happened in practice in our community here is that people have come from different backgrounds and have gravitated into a field rather than remaining bound by a discipline.

(LMIC respondent, university)

More academic institutions challenge [multidisciplinary work] because all the academic careers are based on disciplines and even more now because it’s very much linked to publications in certain disciplines and I think this is a challenging factor.

(HIC respondent, university/research institution)

Almost all key informants indicated that they would like to increase their capacity to work across disciplines and to bring in multidisciplinary viewpoints, seeing the enormous value they bring within HPSR.

**Course content**

There was a marked diversity in the content offered by HPSR courses, indicating that HPSR is a newly developing field with fluid boundaries. Key informants often raised the ambiguity of what would or would not constitute an HPSR course, suggesting that this reflects a lack of a unified set of theories or grounding course materials.

In the case of health policy and systems research, we don’t have a common theory. Mainly because we are explaining the topic based on our own experiences. So, if you need to go to a book for health policy and systems research, what will you find? One about England, one book about Africa, one book about the OECD countries, high-income countries … you have that problem.

(HIC respondent, university)

Figure 10 highlights some of the most common responses related to content within HPSR courses. As can be seen, although most is very relevant to HPSR, some content has a less
direct link, despite the definition given in the survey tool and the inclusion criteria described in the methods section. For example, epidemiology and biostatistics skills, although useful for HPSR, related more broadly to public health.

![Figure 10 Most commonly reported content in HPSR courses](chart.png)

What constitutes—or what should constitute—HPSR training was explored in the key informant interviews. Key informants reiterated the breadth of course content. Many further pointed out that the relative expertise at each institution would vary and that teaching around HPSR would similarly vary according to the backgrounds and experiences of the instructors. Many respondents suggested that a basic understanding of health systems and systems thinking, often underpinned through the use of frameworks or theories, would be particularly beneficial for students.

> Getting people to come to a common ground on a framework of concepts and definitions and approaches to health systems seems to be a real prerequisite, because then you can start using that as a way to reach into the system as a way to talk about it, understand it, appreciate the complexity and the interrelationships of the components.
> 
> (HIC respondents, university)

In this overview of health systems, introducing students to the complexity of such systems was seen to be of critical importance. Furthermore, the context-specificity of health systems functioning was perceived to be necessary to relay to students.

> Health policy research is a cross-cutting discipline. It touches on social issues, political issues, and development issues. So if a training programme is designed, it has to consider these broader issues so that the trainees can see how health systems work from a broader perspective.
> 
> (LMIC respondent, university)
[Students] need to understand ... what makes [health systems in different countries] tick, the politics, the social setting, the cultural barriers and facilitators.

(HIC respondent, university)

From this base, many key informants then saw an opportunity to introduce other topics as required. However, as many HPSR courses are embedded within degree programmes, it was acknowledged that developing the full spectrum of knowledge and skills to do HPSR comes not from one or two specific courses, but throughout a full degree programme.

We would focus much less on methods and data collection than on overall design because we assume that people would do other courses on qualitative and quantitative methods ... Because we have several different offerings in an environment where people have a number of different choices ... it's done elsewhere.

(LMIC respondent, university)

**Learning objectives and capacities**

Survey respondents provided data on course learning objectives or capacities as well. Of the respondents directly involved with at least one course, 80 (76%) provided course-specific objectives for 101 courses.

Figure 11 indicates the top 10 learning objectives that respondents reported their courses try to build among participants. The three most common objectives were: the ability to frame a health systems research question, the ability to construct a research proposal, and the ability to do policy analysis, with the rest receiving a broadly similar number of responses.

![Figure 11 Most commonly reported learning objectives of HPSR courses](image)
During in-depth interviews, key informants were prompted to think of what their courses aim to equip students to be able to do after finishing their studies, that is, the capacities that these courses aim to develop in participants. Very commonly, the concepts of critical thinking—about health systems and/or policy, appropriate research questions, and available literature—alongside the ability to evaluate and conduct research from a health systems perspective, were mentioned by participants as particularly important capacities.

The idea there is to instil in them critical thinking. Critically assessing the current state, critically assessing the evidence in support of different approaches ... then kind of bringing together and critically analysing this evidence puzzle at different levels, both at the technical interventions level and at the implementation of policies and programmes level.

(HIC respondent, university)

The most important capacities should be a comprehensive knowledge and skills concerning health system research principles and planning processes, to develop the basic competencies related to problem-solving, data analysis, results communication and decision-making, which should be built on such evidence-based results.

(LMIC respondent, university)

Taken together, critical thinking and systems thinking were believed to be important to help students transcend their individual specializations and gain skills for effective HPSR.

In most of the courses, they are more soft courses; they are more aimed at trying to transfer some information, but developing capacity to think critically about different topics or different ways of looking at health systems.

(HIC respondent, university/research institution)

I think the skill is really critical thinking about their own specialization if it’s not health systems research in order to take a systematic and systemic health systems approach to whatever it is they are doing so that even if their research is very narrow, they understand that it’s not implemented in isolation.

(HIC respondent, university)

**Research methods taught**
Seventy-two per cent of HPSR courses taught at least one quantitative method, compared to 76% of HPSR courses teaching at least one qualitative method. Eighty-eight per cent of courses taught at least one quantitative research method and at least one qualitative research method. The teaching of these methods did not vary widely across institution type. There were no substantive or statistically significant differences between LMIC and HMIC courses in terms of probability of teaching quantitative or qualitative research methods.
In the interviews, many key informants indicated that an overview of both quantitative and qualitative research methods would be valuable course content to include in HPSR training. There were a number of respondents who indicated additional research methods that would be useful to teach in HPSR courses, as they have particular relevance to answering research questions in HPSR.

We’ve got quite a research methods focus as well because we do quite a lot of participative research here. For example, in the course I’m working on, we have a module on social science research methods in health, and that’s really a kind of participative focus, so we look at participatory mapping, matrix provider preferences, institutional mapping, things like that.

(HIC respondent, development institution)

Although some respondents felt that training in the understanding and application of both qualitative and quantitative research methods is essential within these courses, others felt that the most important course content was in identifying appropriate research questions. Most respondents emphasized that it was necessary to convey to students that the research methods used should reflect the types of research question asked.

The approach to research strategies and study design we refer to as flat rather than hierarchical. Actually, as an applied field, we’re interested in research that addresses a particular problem and that the methodology follows from that, so the methodology can be qualitative or quantitative, it can be action research, it can be observational, it can be experimental … actually from a methodological point of view, we’re fairly agnostic I suppose!

(LMIC respondent, university)

Many key informants felt that these courses were still dominated by epidemiological and/or biomedical approaches and were therefore more likely to emphasize quantitative research methods. However, the survey findings suggested that there was no difference in the frequency of courses that used qualitative (76%) or quantitative (72%) methods.

In general I do think that there are fewer qualitative modules or methods that are taught than quantitative ones. Everywhere I’ve been actually, we use quite a lot of quantitative stuff: epidemiology, various aspects of epidemiology, randomized controlled trials, to start with these methods. There’s definitely a bias towards quantitative methods in teaching.

(HIC respondent, university)
Figure 13 Most commonly reported (among LMIC respondents) quantitative methods taught in HPSR courses

Although different quantitative research methods were taught in HPSR courses, randomized controlled trials, household surveys, health facility surveys, systematic reviews, cohort studies, and case-control studies were the most commonly indicated methods. Through key informant interviews, methods like social network analysis came across more strongly as being introduced in HPSR courses because they were particularly relevant to the field. Few quantitative methods were mentioned with respect to their specificity to HPSR.

In LMICs, household and health facility surveys (taught by 46% and 43% of LMIC respondents respectively) were the most commonly taught quantitative research methods, with similar percentages seen in HICs (indicated by 39% and 41% of HIC respondents respectively). The teaching of cohort analysis (36%), case-control studies (36%), pragmatic trials (25%), and systems dynamics modelling (13%) were similar in HICs as in LMICs (27%, 27%, 14%, and 5% respectively).
Qualitative and mixed methods

Figure 14 Most commonly reported (among LMIC respondents) qualitative and mixed methods taught in HPSR courses

The most frequently indicated qualitative research methods tended to involve commonly used social sciences qualitative research methods: qualitative case studies, focus group discussions, in-depth interviews, and key informant interviews. Increasingly, both case studies and participatory action research using quantitative and qualitative methods are used in HPSR courses—mixed methods research appears to be a common feature of these courses. In-depth interviews (43%) and key informant interviews (46%) were similarly taught in LMICs and HICs (38%, 38%, and 28% respectively), whereas the difference for realist reviews nearly reached statistical significance (p=0.08) (19% in HICs compared to 10% in LMICs), as well as for participant observation (p=0.09) (37% in LMICs compared to 28% in HICs). Notably, participatory action research was indicated by a considerable number of key informants as a method that was of particular value in HPSR. Again, there was no difference between LMICs (28%) and HICs (25%) in how frequently this method was taught.

Target audiences

HPSR courses were most commonly aimed at masters students, though other types of learners were also commonly reached. The survey did identify the fact that many of the students have multiple roles—for example, many masters students also had ongoing roles as health organization managers or practitioners. However, as the survey respondents were instructors, they may not have had a full grasp of the multiple roles played by their students other than anecdotally, suggesting that there were “different hats worn” by many of them.

Masters students were the most commonly targeted student audience in both HIC and LMIC settings (70% and 73% respectively). This finding is surprising given that in LMIC settings there were fewer academic institutions represented among those offering HPSR courses and more short courses, which would support the proposition that more non-traditional students, such as policy-makers and health organization managers, might be represented among the targeted students.
Responses further indicated that in HPSR courses, there were similar proportions of doctoral students (48%), policy-makers (45%), health organization managers (50%), and practising researchers (37%) in HICs and LMICs (37%, 31%, 37%, and 28% respectively—all comparisons p-value > 0.2). Figure 15 does not show undergraduate students and educators, who were indicated as target audiences by less than 20% of respondents in both LMIC and HIC settings.

![Figure 15](https://via.placeholder.com/150)

**Figure 15** Most commonly reported (among LMIC respondents) student audiences of HPSR courses

Key informants confirmed survey findings and further identified student audiences that are currently not targeted through HPSR courses, including practising physicians and public health professionals, as well as ministry of health staff who are directly responsible for implementing policy. It was felt that, by being embedded within health systems and with the capacity to impact health system design and policy development, these groups of individuals would be important to target.

I think you’re clearly missing doctors and other health professionals. Medical doctors carry out an enormous amount of research ... they see the patients, they are collecting an enormous amount of data. They are working in their silos and in isolation so they need to understand how health systems work.

(HIC respondent, university)

If we can get more and more people who are in the policy-making processes, people who are really policy implementers, people from civil society groups ... I think certainly we would make much more impact.

(LMIC respondent, university/NGO)

As HPSR courses are typically offered as part of a degree programme, some audiences who may have the most to gain from HPSR training are precluded, as it is unlikely that they could find the opportunity to get involved in these courses given their working schedules.

People who may be country desk officers or people who are headquarters officers. They don’t have a lot of time to do a masters, but if we could get them into a diploma course or some kind of short course, we could hook them in that way as one way of getting at the other problem I was talking about: people are asking for magic and aren’t really understanding what they are asking for.

(HIC respondent, university/research institution)
Evaluation of students

Most respondents (93%) reported evaluating their students taking HPSR courses. Presentations, exams, research projects, essays, and reports were used most commonly to evaluate students. With the exception of research projects, evaluation methods that required application of knowledge and skills in real-life settings (e.g. practicums—in which students are expected to engage in work or research related to health systems or HPSR, role-playing, writing policy briefs, conducting literature reviews, etc.) were used to a limited extent. Reports were more frequently used in LMICs compared to HICs (40% vs. 22%, p=0.03) as well as research projects (44% vs. 31%, p=0.04).

Many key informants also reiterated that it is crucial to evaluate whether capacities had actually been built among students to the greatest extent possible. As such, whether through more “traditional” methods of evaluation such as presentations and exams, or others like practical assignments (Figure 16), it was found that applied knowledge and critical thinking were assessed.

![Figure 16](image)

Figure 16 Most commonly reported (among LMIC respondents) evaluation methods used in HPSR courses

The way these assignments are graded, they get content substance points, but they also get points of any indication of critical thinking and analysis that I mentioned earlier, and evidence into policy and whether they’ve implemented that.

(HIC respondent, university)

Most student assessment is based on classroom exams and term papers although we do have … a component that is project-based. It is not embedded in any of the course modules. It is a separate project, a guided study, usually the students will have a supervisor. It can be as research-y as any of the publishable papers, so based on solid data and statistical analysis.

(LMIC respondent, university)

So, [students] have actually to develop in the course a development report and they have actually to come and present it back to the policy-makers and also to a panel of researchers and professors where they sit and listen to them, and they have to actually show the value and the change that they have brought as a result of their work.

(LMIC respondent, university)
Post-training follow-up of students

Only 40% of the respondents reported following-up with students after they had completed their studies in an HPSR-relevant course. Twenty percent of the respondents did not know whether any follow-up occurred, and 40% reported no current attempts to follow-up with students.

There were multiple platforms to follow-up with these students, but follow-up surveys, alumni networks and groups, informal contact with alumni, conferences, and follow-up emails were commonly used. However, it is not known whether these are specific to the course or part of broader institutional engagement with alumni.

![Follow-up Method](image)

**Figure 17** Most commonly reported methods of follow-up for alumni

In-depth interviews highlighted that many instructors of HPSR would be interested to do more follow-up of the students who have completed their courses, but that they are constrained in doing so, often due to institutional-level barriers or a lack of time and/or resources.

Now we have mass production [of graduates], we cannot follow-up what they are doing. From the moment they leave the university, we don’t know where they are ... this should be taken as a special area where we could create a network ... This is very important, because if they graduate and they are forgotten, then they go back to square one.

(LMIC respondent, university)

A good process here does bring renewal within it, and I think we don’t do that very well and it’s quite difficult to do it where you’re dealing with a dispersed population ... Particularly in this area where the research methods are evolving and changing pretty fast, I think it’s important for people to have a continuing interest.

(HIC respondent, university)
Although alumni associations and surveys were commonly reported by survey respondents, key informants highlighted the value of linking alumni into specific research networks, and further to that, trying to facilitate ongoing academic and professional development opportunities.

We try to make sure that there are always training programmes that people can apply to so that they always have something to aspire to, and then we have research groups that they can be a part of—teams of people with varying experience.

(LMIC respondent, university/NGO/Ministry of Health)

One important comment that also arose during in-depth interviews was that reverse follow-up, in which the students contact the instructor or the institution to seek out further opportunities for career development also occurs.

We hear back from the students a lot and a lot of the students come back for more. When they get stuck in their problems, they come back. Often it comes back in the form of a joint project, so our graduates actually get into a situation where they can get projects. We help them get money and we keep a working relationship. It goes on in some cases for decades. We help them in starting up courses. So there is some follow-up but I think it’s more ad-hoc.

(HIC respondent, university/research institution)

**Challenges in teaching HPSR**

Key informants were asked to identify some of the most significant challenges they face in teaching HPSR. Although many of the challenges emerged throughout the interviews, the majority of key informants mentioned two overarching challenges. The first is the lack of a supportive institutional environment to offer training in HPSR, which includes an insufficient number of people trained in HPSR to take on teaching and supervisory roles, especially for students entering higher-level studies such as PhDs or postdoctoral fellowships. As a result, there are few incentives to teach HPSR.

The second is the sense that HPSR lacks legitimacy, both within academic institutions and beyond, resulting in little demand for HPSR. On this point, key informants often recognized the difficulty in mainstreaming HPSR teaching in academic institutions, and also difficulty in getting research into policy due to a historical tendency to not always incorporate an evidence base into policy-making. As an offshoot of this second challenge, HPSR is under-funded, which also carries into the first challenge, making HPSR an unattractive field for students to pursue because they fear there will not be grant or job opportunities within it.

It’s particularly difficult to get programmatic-type funding so that you can really build a set of people. Because the other real challenge in this part of the world is that we have our own challenges as a research institute, but in terms of sustainable careers, health systems research is not part of the fabric of academic institutions here. So universities really don’t have those kinds of people yet. And they’re not likely to get them I would say for quite some time unless there are profitable ways to run masters courses.

(LMIC respondent, research institution)
I have doctors all the time [who] say after our courses, “that was really, really interesting and we might even want to do a thesis on it or a project on it in the medical school”. Then they come back and say, “we were advised that there are no supervisors, we need to focus on our specialization and that doesn’t include health systems”.

(HIC respondent, university)

Quite a lot needs to be done to de-legitimize on-the-hoof policy-making as it very often occurs ... A lot of the useful support systems for developing research capacities are people actually thinking there’s some chance that their research will make a difference or that there are ways of facilitating research into practice.

(HIC respondent, university)

Opportunities for expanding capacity in HPSR

Key informants were also asked to share their perspectives on possible ways to expand capacity around HPSR, whether through training or other means. There were a number of suggestions that were frequently mentioned:

• Networks such as CHEPSAA, that link institutions and facilitate capacity development in doing HPSR, but also in teaching HPSR, should be encouraged.

[CHEPSAA has] created a certain energy and innovation and set of materials and branding and so on. I think we need more of that kind of thing. The convening power to bring together schools who are developing curricula and working on curricula with mentorship that people like [CHEPSAA coordinators] provide is a great model.

(HIC respondent, university/research institution)

I think what would be very important would be a global community of practice. People who are involved in health policy and systems research should have a platform. There has to be a listserv for the community of practice where you can share globally experiences and strategies for health policy and systems research.

(LMIC respondent, university)

Because we’ve recognized that we have a lot of expertise in learning and teaching particularly around health policy and systems that could be used to develop other institutions who are delivering that kind of training or teaching in other settings, so I think there is the recognition that it’s the direction we want to move in and it will be important to move into ... Regional networks that have a north-south dimension, we need more.

(HIC respondent, university/research institution)
• Creating demand for HPSR, especially from policy-makers, but also within academic institutions themselves.

I think one of the bits that’s missing is recognition from government that these kinds of areas are important. Most kinds of African countries have got some kind of health institute or multiple research institutions, but they very rarely have anything that approaches HPSR so I think actually that’s a big global issue and I think they need to work to ultimately engage with local universities who can provide the bedrock for developing these areas and obviously be involved in the research. They may very well be in institutions like our own as well, but in terms of sustainable capacity-building, it’s got to be through local institutions.

(LMIC respondent, research institution)

I think we need to go out and make a real case about what a health system is and is not, and also in there use some good examples of what people who are skilled in health systems can do ... In a sense, they are starting to make a clear distinction between what [a] health system does and what health policy does as opposed to other disciplines in public health.

(LMIC researcher, university)

• Creating a mentorship database where students in LMICs might be linked to mentors, especially those who have longstanding expertise in HPSR.

• Engaging specialists to bring in their knowledge. Suggestions to bring in specialist perspectives included field visits, having short videos prepared around specialist topic areas, and generally working across disciplines or even institutions when developing curricula.

• Continually attempting to update resources, especially to bring in real-time, real-world working examples for students to learn from. Innovating within teaching, such as increasingly using blended learning or flipped classrooms, was seen to be of value in training students in applied content such as HPSR.
Conclusion

This mapping study was conducted in order to assess the reach and diversity of HPSR courses offered globally and to identify major gaps and opportunities to expand HPSR teaching capacity. Based on our findings, which have been summarized above, we have noted the gaps in HPSR training and possible ways forward in terms of expanding capacity in HPSR.

The gaps in HPSR training

Geographical and language gaps
The study demonstrated the existence of gaps in terms of geographical coverage and the language of the courses. The institutional and course maps identified a number of “blank spots” and sparsely covered regions. Some regions are particularly under-represented regarding HPSR training, most notably the Eastern Mediterranean, which includes North Africa and the Middle East. Central and Eastern Europe and the former Soviet Union also had very few courses offered. Latin America also appeared to have fewer courses offered than expected. Although efforts have been made to augment the sampling in these regions to increase response to the survey, these findings could have been an artefact of the sampling and recruitment strategies.

Additionally, the dominance of English as the primary language of instruction may preclude teaching in countries where English is not the major spoken language and English language skills are not strong. This consideration is important, as HPSR is a rapidly developing field, with new terms and concepts emerging constantly, and key literature that may inform course content tends to be published in English-speaking journals.

Institutional-level gaps
This study highlighted the critical role of institutional support in developing HPSR training. This support is not only financial but also relates to allocating time for developing and running training and providing access to technical expertise, especially in the case of online course development. Many key informants spoke of feeling like they exist within a silo, not being fully integrated into the supportive infrastructure of the institution. Other institutional challenges included obtaining funding for development of new courses and graduate students being concerned that studying HPSR would not enhance their job prospects.

Having few individuals with the capacity to provide mentorship and peer support within HPSR was indicated by key informants as a barrier to adequately supporting PhD and postdoctoral students in particular. Offering masters degrees or PhDs dedicated to HPSR, having more HPSR courses available, and having more teaching staff to deliver HPSR courses were suggested as viable strategies to increase institutional support of HPSR. There was the perception that existing institutional structures and processes did not encourage multidisciplinary collaboration when training students. Furthermore, it was felt that HPSR-related courses were often delivered with little integration between departments.
A more fundamental issue that was noted was around the perception of HPSR as a new field that lacks legitimacy. HPSR lacking recognition as a distinct thematic area requiring skills and competencies beyond traditional research methods was an additional issue that was raised by key informants.

Gaps in course content
A wide range of methods were taught as part of HPSR courses, with qualitative research methods often considered a core element of training in parallel with quantitative and mixed research methods. HPSR courses were also offered from a wide range of disciplinary backgrounds. However, a number of key informants noted that lacking the methodological capacity to answer the HPSR questions that they would like to in their research was a recurrent problem. This particular issue also stems from the nature of HPSR compared to other fields, relying on researchers to have a very broad yet highly developed skill set, which is often unrealistic. As such, collaboration between researchers specializing in particular methods within HPSR training was seen as an important undertaking, but one that many felt was a challenge in practice.

In general, HPSR training that focused on real-world, real-time health system problems was seen as a priority, although was not always possible to establish.

Training in HPSR-specific methods
Although there is a common tendency to use mixed methods when training HPSR, the study did not identify research methodologies that are specific to HPSR training. Rather, the study discovered that a diverse range of methods were taught, often from different disciplines, which can be applied to health systems in LMICs. Teaching of HPSR, particularly at more advanced levels, may depend on methodologically-driven courses that are not restricted to HPSR applications, particularly as many organizations lack the critical mass of teachers and students to offer HPSR-specific courses. HPSR teaching programmes then have the choice of focusing on any of the following:

1. Teaching aspects of research that are specific to HPSR (e.g. defining HPSR research questions; identifying the conceptual frameworks and appropriate research methods; and working with HPSR stakeholders).
2. Teaching selected research methods that are most commonly applied in HPSR.
3. Conducting research on HPSR problems using a selected set of research methods.

The findings of this study also suggest that core HPSR competencies are not well developed. Defining core competencies in HPSR is particularly challenging given that programmes have a wide set of audiences, with graduates playing roles such as policy-makers, managers, researchers, and advocates. Given the diversity of competencies that were identified in this study, it would be valuable to generate dialogue around HPSR competencies between individuals engaged in health policy and health systems and the researchers who teach HPSR courses.
Gaps in course modalities and audiences

Although there was variation in duration and timing, most HPSR courses were offered as part of a degree programme within a term or semester. Onsite teaching was the predominant medium by which courses were offered. Embedding HPSR courses within a master’s degree, with significant emphasis on teaching content delivered face-to-face, draws in a specific student audience who are either not working or are able to take a considerable amount of time out of their professional working life to undertake training. Many mid-career or senior professionals, especially those working as frontline health care providers or as policy-makers within ministries of health, are not likely to have this opportunity.

Although this study found that current HPSR courses are generally targeted at a mix of graduate students, researchers, and practitioners such as organization managers, responding to the needs of these groups to increase uptake of HPSR training may require more flexible teaching models to be offered. These models might include a series of short courses tailored to specific student audiences, on-the-job training, practicums, and blended onsite and online teaching formats. Furthermore, training needs to draw more extensively on the experiences of the students themselves; the increasingly popular flipped classroom is an example of a promising teaching format that may be particularly useful in developing HPSR training and fully engaging participants.

Study limitations

Several limitations of the study need to be acknowledged. Both the recruitment emails used in sampling and the survey tool were in English, which may have affected the response rate and biased the results. Furthermore, despite making efforts to ensure we were capturing relevant courses across regions, minimal web presence of courses within regions like the Middle East and Latin America may have led to fewer recruitment emails sent to relevant individuals in these areas, which may have led to their under-representation.

Although a definition of HPSR was provided in the survey to indicate the type of courses that should be included, respondents provided answers on some courses that, although relevant for HPSR in LMICs, were not necessarily applied to HPSR in LMICs. Responses for courses that made no explicit mention of research methods were not included in the analysis. However, if courses engaged with research methods in some way, without these being a central component of the course, those responses were included. As a result, we may have received responses where research and research methods were discussed very superficially, and again, not applied within the context of HPSR. Owing to practical constraints, it was not possible to follow-up with every respondent to confirm the extent to which research and research methods were included in their courses, and the extent to which these were specifically applied to HPSR.
The way forward
This study helped to identify a number of suggestions for moving forward in developing and supporting HPSR training capacity with particular relevance to LMICs. These can be grouped in several categories:

- Defining the field: competencies
  This report suggests that defining individual HPSR competencies is an important step in building the field of HPSR training capacity worldwide. The scope and nature of HPSR training and the prerequisites for HPSR courses need to be debated within emerging communities of practice, such as through Health Systems Global and the AHPSR, as well as through regional networks and organizations. These discussions should involve institutions providing HPSR courses and others who are seeking to develop these.

  Operationalizing institutional competencies in HPSR is a useful exercise to build a common platform for HPSR training development. As this report suggests, HPSR is seen to encompass a diversity of specialized and “soft” skills. As such, an ability to work across disciplines and overcome institutional and professional divisions and expectations is central to promoting coherent HPSR training programmes.

- Expanded geographical and language coverage of HPSR courses
  A clear recommendation identified from the study is the need to expand HPSR training in particular regions that are lacking capacity, especially the Middle East, parts of Africa, Latin America, and the former Soviet Union. Courses and resources need to be developed in languages other than English. To do so, dedicated training capacity development regionally and engagement with donors, governments, and networks with an interest in HPSR in under-represented regions is essential.

- Access to information
  Respondents expressed interest in having access to an updated list of HPSR courses, their objectives, and a general overview of their content. Such a resource would assist individuals developing, updating, or adapting courses in drawing upon what is being done elsewhere. Another frequent request was for the establishment of a repository of course materials that are open access or can be shared.

- Knowledge-sharing and cross-learning
  The ability to interact and learn from other instructors of HPSR and drawing lessons from their experiences is critical in developing HPSR training. There was significant interest in engaging practising and prospective teaching staff through “webinars” and/or other exchanges that might allow for the sharing of innovative and effective teaching practices. Given the increasing need for flexible training, it is important to learn about innovation in teaching approaches and to identify features that are transferrable between settings.

  Encouraging networks and partnerships globally may help to transcend weaknesses in particular institutions. For example, online training platforms can draw on the strengths of diverse institutions and help to scale up teaching models.
References

Appendices

In-depth interview guide

Over the past few months, we have been conducting a global mapping of training in Health Policy and Systems Research. We began with a quantitative survey that yielded several hundred responses including 187 full responses from institutions offering HPSR training as well as information on over 140 courses representing every region of the world. The following questions build upon and seek to help us interpret the findings from the survey, and we are reaching out to leaders like you in the HPSR field to help us do that.

We define HPSR courses as those that emphasize how to do research around health systems issues. They should seek to understand and improve how societies organize themselves in achieving collective health goals, and how different actors interact in the policy and implementation processes to contribute to policy outcomes...[to create] a comprehensive picture of how health systems respond and adapt to health policies, and how health policies can shape—and be shaped by—health systems and the broader determinants of health.

Content

1. What course content, in your view, constitutes a good quality HPSR training?

   We found that the course content was quite diverse, but some of the most commonly taught content was:
   • Policy analysis/development/planning
   • Health systems strengthening/analysis/dynamics
   • Operations research/implementation science
   • Health systems research/social science research methods
   • Health economics (econometrics, cost effectiveness, etc.)
   • Governance, leadership, and management
   • Ethics
   • Epidemiology and measurement/sampling issues for health systems
   • Health promotion/literacy

   Do these findings agree with what you do in your own HPSR teaching and how are they similar/different? Is there another content area that you think should definitely be part of an HPSR course?

2. How does your course handle the challenge of multi-disciplinary viewpoints, particularly, differing worldviews, and different ways of approaching research (epistemologies), that may orient the purpose and approach of health policy and systems research differently?

   Note: If their course follows only one discipline but their institution offers different approaches, follow-up
3. How does your course reflect issues around societal values and ethics within health systems?

   *Explain that all health systems are underpinned by values that shape their aims and operation. For example, some systems are concerned with equity, others with individual choice.*

**Capacities and competencies**

We define a competency as the ability to apply a set of related knowledge, skills, and abilities needed to successfully perform important work functions or tasks. An educational competency is usually defined at the level of a degree or program. In contrast, learning objectives are more specific and describe what the learner should be able to achieve at the end of a course. Learning objectives say what we want the learners to know and competencies indicate how we can be certain they know it.

4. In your experience, what are some of the most important capacities (those that are being trained through courses) related to health policy and systems research that, ideally, should be built among students participating in HPSR courses? Does this correspond to what you do in your own course?

   How do these capacities/learning objectives relate to any competencies relevant to HPSR if defined by your institution?

**Student audiences and teaching formats**

5. We have found that the most common audience for HPSR courses is master’s students, followed by health organization managers, doctoral students, policy-makers, and NGO staff. Does this finding reflect your experience? Who should be the primary audience in your view?

   What other groups should be targeted for a course in HPSR?

6. The most commonly used approaches in HPSR teaching include classroom lectures followed by independent reading, case studies, small group discussions, and group projects. Why do you think this is the case?

   Which approaches do you think would be most valuable in teaching HPSR?

   *Probe: what approach helps to explore real life problems?*

7. On-site HPSR teaching was used much more frequently than online teaching. At your institution, which is used, and in your views what make one more used than the other?

   What are the strengths and weaknesses of (whatever approach they indicate)?

8. What are constraints beyond your institution for more online learning?
9. The most commonly used quantitative research methods used in HPSR courses include household and health facility surveys, systematic literature reviews, randomised controlled trials, and case-control studies. Does this finding reflect your experience?

Which quantitative research approaches and methods do you think are the most valuable to teach in HPSR? Why?

10. We found that case studies, focus group discussions, key informant interviews, in-depth interviews, and participant observation were the most commonly taught qualitative research methods in courses relevant to HPSR. (They are also very common qualitative research methods in general). Could you comment on these findings?

Which qualitative research approaches and methods do you think are the most valuable to teach in HPSR? Why?

**Evaluation and follow-up**

11. In this study, the majority of participants who reported evaluating students in HPSR courses did so through presentations, exams, research projects, essays, and reports. Could you comment on these findings?

*Probe: what are possible advantages and disadvantages to using these evaluation approaches?*

12. What other evaluation methods do you think are most valuable for students to ensure they have built capacities in HPSR?

13. We found that only 40% of respondents providing institutional information were following up with students once they had completed their training (and 20% of respondents did not know whether students were followed up). Some of the ways that students were followed up include:

- Surveys/Alumni surveys by training institutions or employers
- Alumni and mentoring networks and events, including conferences
- Continuing education programs
- Annual letters and newsletters

To what extent do you think it is valuable to follow students after they have completed HPSR training? Why? What do you feel are the best possible ways to follow up with students?

**Broader analysis and suggestions**

14. Moving on from the survey, what do you think are the best approaches to expand capacity in HPSR? (In settings you are familiar with or worldwide)

15. What do you think are some of the greatest challenges in teaching HPSR?

16. How do you think the challenges you indicated could be overcome?
17. To what extent are you willing and able to collaborate with other institutions around HPSR training? What about your institution?

Do you have any other comments on the study findings that you would like to share? Are any of these findings surprising for you?
We are conducting global mapping of current teaching and training programmes with a focus on HEALTH POLICY AND SYSTEMS RESEARCH relevant to low- and middle-income countries. We aim to identify major gaps in training and promote access to HEALTH POLICY AND SYSTEMS RESEARCH training and teaching resources.

We are going to ask you some questions about your institution first. We are then going to focus on specific HEALTH POLICY AND SYSTEMS RESEARCH courses that you are familiar with.

By continuing and answering the questions, you are giving permission to participate in the survey. We appreciate you taking the time to share your important work with us!

**1. Name**

2. Email

3. Telephone number (please include country and area codes)

4. Name of organization/department, if applicable

**5. Your primary location**

Country

City

Introduction

As an emerging area of research, HEALTH POLICY AND SYSTEMS RESEARCH asks questions that relate to real-world situations and issues that focus on health services and promoting health. It supports applied research that explicitly seeks to influence policy and has potential to lead to health system development. Health systems research is seen as particularly well suited to answer WHY and HOW a certain mix of structures, policies, or interventions may have shaped outcomes. It can draw on one or more disciplines and methods to answer these questions.

Issues studied include how health care is financed, organised, delivered and used; how health policies are prioritised, developed and implemented; and why some health systems achieve their goals and others do not. It enables a comprehensive analysis of how health systems respond and adapt to health policies, and how health policies can shape—and be shaped by—health systems and the broader determinants of health. Both unintended consequences and complexity in achieving intended effects are often examined.

Your Institution

First we will ask some questions about HEALTH POLICY AND SYSTEMS RESEARCH training at your institution as a whole.
Mapping of Health Policy and Systems Research Courses

6. Are there courses relevant to HEALTH POLICY AND SYSTEMS RESEARCH offered at your institution? "Course" encompasses all capacity development initiatives for HEALTH POLICY AND SYSTEMS RESEARCH, including short-term in-service trainings, full semester-long courses, modules and short courses, online courses, special studies, dissertation mentoring, and others.

☐ Yes
☐ No
☐ I do not know

Your Institution

7. Do you feel that courses relevant to HEALTH POLICY AND SYSTEMS RESEARCH should be offered at your institution?

☐ Yes
☐ No
☐ I do not know

8. Please explain your response:

Your Institution

9. How many courses that have relevance to HEALTH POLICY AND SYSTEMS RESEARCH are offered at your institution?

☐ 1
☐ 2
☐ 3
☐ More than 3
☐ I do not know
**10.** A competency is the ability to apply a set of related knowledge, skills, and abilities needed to successfully perform important work functions or tasks. An educational competency is usually defined at the level of a degree or program. In contrast, learning objectives are more specific and describe what the learner should be able to achieve at the end of a course. Learning objectives say what we want the learners to know and competencies indicate how we can be certain they know it.

As a simplified example, a competency within public health programs offered by an institution might be for students to, "demonstrate cultural awareness and sensitivity". A learning objective of a course within a public health program with that competency might be to "identify the range of social and environmental determinants of health among indigenous populations in Northern Alberta".

**Does your institution have educational competencies specified for any teaching relevant to HEALTH POLICY AND SYSTEMS RESEARCH?**

- [ ] Yes
- [ ] No
- [ ] I do not know

**Your Institution**

**11. Please list competencies here or provide a URL to the appropriate page on your institution's website or academic handbook. If competencies apply to a specific program, please also indicate that program here.**
12. What are the target (student) audiences for training relevant to HEALTH POLICY AND SYSTEMS RESEARCH at your institution? Please check all that apply.

- Undergraduate students
- Master’s students
- Doctoral students
- Policy-makers
- Health organization managers
- Practicing researchers
- Educators (teachers, trainers, professors)
- Physicians
- NGO staff
- I do not know

Other (please specify)

13. Does your institution follow the professional development and career progression of those who have completed training relevant to HEALTH POLICY AND SYSTEMS RESEARCH? (E.g. Career surveys sent via alumni networks)

- Yes
- No
- I do not know

14. How are these individuals followed-up after they complete their training?
15. If you cannot provide an institutional perspective on HEALTH POLICY AND SYSTEMS RESEARCH training, can you identify a contact person at your institution who has a lead role in the oversight of academic programs and could answer questions about institutional involvement and capacity for teaching HEALTH POLICY AND SYSTEMS RESEARCH?

- Yes
- No

16. Contact information (name, title, email, phone number) of the person you recommend to provide an institutional perspective of HEALTH POLICY AND SYSTEMS RESEARCH training:

[Insert contact information]

17. Are you involved in at least one course that is relevant to HEALTH POLICY AND SYSTEMS RESEARCH?

- Yes
- No
- I do not know
Mapping of Health Policy and Systems Research Courses

18. Do(es) the course(s) teach or appraise research methodologies?
   - Yes
   - No
   - Yes, but teaching or appraising research methodologies is not central to the course(s)

Specific Health Policy and Systems Research Courses

19. Do(es) the course(s) have application to a low- or middle-income country context?
   - Yes
   - No

Specific Health Policy and Systems Research Course 1

20. What is the title of the first course relevant to HEALTH POLICY AND SYSTEMS RESEARCH that you are directly involved in?

21. What is your role in this course? (E.g. Course coordinator, module organizer, regular lecturer, etc.)

22. Please provide a brief description of the course including major topics/methods covered. (Suggestion: you may wish to copy and paste parts of the course syllabus here)
Mapping of Health Policy and Systems Research Courses

23. Does this course have core learning objectives?
- Yes
- No
- I do not know

Specific Health Policy and Systems Research Course 1

24. What are the core learning objectives for this course?

Specific Health Policy and Systems Research Course 1

25. What formats of teaching do you use in your course relevant to HEALTH POLICY AND SYSTEMS RESEARCH? (Check all that apply)
- Classroom lectures
- Small group seminars (<20 students)
- Case studies
- Problem sets
- Group projects
- Independent reading
- Simulations
- Online courses (closed to program participants)
- Blended learning (on-site and online; “flipped classrooms”–online lectures with person-to-person discussion, case studies, problem sets, or simulations)
- Open access online courses (e.g. Coursera, OpenCourseWare)
- Practicum or internships
- Research projects
- Other (please specify)
### Mapping of Health Policy and Systems Research Courses

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>26. How is this course primarily offered?</strong></td>
<td>- On-site (face-to-face)</td>
</tr>
<tr>
<td></td>
<td>- Online</td>
</tr>
<tr>
<td></td>
<td>- Both</td>
</tr>
</tbody>
</table>

### Specific Health Policy and Systems Research Course 1

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>27. What is the primary on-site (face-to-face) location of the course?</strong></td>
<td>(Please provide the city and country)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>28. What language(s) is this course offered in?</strong> (Please specify)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>29. When is the course offered?</strong> (Please specify the usual timing and duration of the course and when it is repeated)</td>
<td></td>
</tr>
</tbody>
</table>
**30. What are the target (student) audiences for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH? (Check all that apply)**

- [ ] Undergraduate students
- [ ] Master’s students
- [ ] Doctoral students
- [ ] Policy-makers
- [ ] Health organization managers
- [ ] Practicing researchers
- [ ] Educators (teachers, trainers, professors)
- [ ] Physicians
- [ ] NGO staff

Other (please specify)
**Mapping of Health Policy and Systems Research Courses**

**31. Which QUANTITATIVE research methods and study designs are taught for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH? (Check all that apply)**

- [ ] Randomised controlled trials
- [ ] Cohort analysis
- [ ] Case-control
- [ ] Time & Motion Studies
- [ ] Non-random concurrent comparison studies
- [ ] Cluster or community trials
- [ ] Pragmatic trials
- [ ] Household surveys
- [ ] Health facility surveys
- [ ] Longitudinal modeling
- [ ] Multi-level statistical modeling
- [ ] Network analysis (social network analysis)
- [ ] Optimization/forecasting modeling
- [ ] Systems dynamics modeling
- [ ] Agent-based modeling
- [ ] Systematic reviews
- [ ] Quantitative meta-analysis
- [ ] None

Other quantitative methods (please specify)
Mapping of Health Policy and Systems Research Courses

**32. Which QUALITATIVE research methods and study designs are taught for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH? (Check all that apply)**

- [ ] Ethnography
- [ ] Phenomenology
- [ ] Narratives
- [ ] In-depth interviews
- [ ] Key informant interviews
- [ ] Case studies
- [ ] Realist reviews
- [ ] Focus group discussions
- [ ] Participant observation
- [ ] Historical review
- [ ] Scenario-building
- [ ] Delphi design for opinions
- [ ] Participatory action research
- [ ] None

Other qualitative methods (please specify)

**33. Which MIXED research methods and study designs are taught for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH? (Check all that apply)**

- [ ] Effectiveness-Implementation trials
- [ ] Mixed methods case studies
- [ ] None

Other mixed methods (please specify)
**34. What discipline does this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH fall under? (Check all that apply)**

- [ ] Anthropology
- [ ] Biostatistics
- [ ] Epidemiology
- [ ] Global/International Health
- [ ] Health Economics
- [ ] Health Policy or Health Systems Evaluation
- [ ] Health Policy or Health Systems Research
- [ ] Political Science
- [ ] Public Health
- [ ] Sociology
- [ ] I do not know

Other (please specify)

**35. Do you assess individuals during this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH?**

- [ ] Yes
- [ ] No

---

**Specific Health Policy and Systems Research Course 1**

**36. How are individuals assessed? (Please select all that apply)**

- [ ] Exams
- [ ] Essays
- [ ] Literature reviews
- [ ] Policy briefs
- [ ] Practical assessments/role-playing
- [ ] Presentations
- [ ] Reports
- [ ] Research projects
- [ ] I do not know

Other (please specify)
<table>
<thead>
<tr>
<th>Specific Health Policy and Systems Research Course 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>37. Are teaching materials for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH available via open access?</strong></td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td><strong>38. Is there a URL or hyperlink available for these teaching materials?</strong></td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td><strong>39. URL for open course teaching materials</strong></td>
</tr>
</tbody>
</table>

---

**40. Are you able to share non-open access materials for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH (including a description, outline, syllabus, or learning materials)?**

| Yes | No | I do not know | Not applicable (all materials open access) |

---

Specific Health Policy and Systems Research Course 1

Thank you! Please send materials for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH to: hpsr_mapping@gmail.com

We will not share anything further without your explicit permission.

Additional Courses

| **41. Are you involved in any other courses relevant to HEALTH POLICY AND SYSTEMS RESEARCH?** |
| Yes | No |
Mapping of Health Policy and Systems Research Courses

Specific Health Policy and Systems Research Course 2

*42. What is the title of the second course relevant to HEALTH POLICY AND SYSTEMS RESEARCH you are directly involved in?


*43. What is your role in this course? (E.g. Course coordinator, module organizer, regular lecturer, etc.)


44. Please provide a brief description of the course including major topics/methods covered. (Suggestion: you may wish to copy and paste parts of the course syllabus here)


*45. Does this course have core learning objectives?

- [ ] Yes
- [ ] No
- [ ] I do not know

Specific Health Policy and Systems Research Course 2

46. What are the core learning objectives of this course?
**47. What formats of teaching do you use in your course relevant to HEALTH POLICY AND SYSTEMS RESEARCH? (Check all that apply)**

- [ ] Classroom lectures
- [ ] Small group seminars (<20 students)
- [ ] Case studies
- [ ] Problem sets
- [ ] Group projects
- [ ] Independent reading
- [ ] Simulations
- [ ] Online courses (closed to program participants)
- [ ] Blended learning (on-site and online; “flipped classrooms”—online lectures with person-to-person discussion, case studies, problem sets, or simulations)
- [ ] Open access online courses (e.g. Coursera, OpenCourseWare)
- [ ] Practicum or internships
- [ ] Research projects
- [ ] Other (please specify)

**48. How is this course primarily offered?**

- [ ] On-site (face-to-face)
- [ ] Online
- [ ] Both

**49. What is the primary on-site (face-to-face) location of the course? (Please provide the city and country)**

- [ ]

**50. What language(s) is this course offered in? (Please specify)**

- [ ]
51. When is the course offered? (Please specify the usual timing and duration of the course and when it is repeated)

52. What are the target (student) audiences for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH? Please check all that apply.

- Undergraduate students
- Master’s students
- Doctoral students
- Policy-makers
- Health organization managers
- Practicing researchers
- Educators (teachers, trainers, professors)
- Physicians
- NGO staff

Other (please specify)
<table>
<thead>
<tr>
<th>Research Methods and Study Designs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Randomised controlled trials</td>
<td></td>
</tr>
<tr>
<td>Cohort analysis</td>
<td></td>
</tr>
<tr>
<td>Case-control</td>
<td></td>
</tr>
<tr>
<td>Time &amp; Motion Studies</td>
<td></td>
</tr>
<tr>
<td>Non-random concurrent comparison studies</td>
<td></td>
</tr>
<tr>
<td>Cluster or community trials</td>
<td></td>
</tr>
<tr>
<td>Pragmatic trials</td>
<td></td>
</tr>
<tr>
<td>Household surveys</td>
<td></td>
</tr>
<tr>
<td>Health facility surveys</td>
<td></td>
</tr>
<tr>
<td>Longitudinal modeling</td>
<td></td>
</tr>
<tr>
<td>Multi-level statistical modeling</td>
<td></td>
</tr>
<tr>
<td>Network analysis (social network analysis)</td>
<td></td>
</tr>
<tr>
<td>Optimization/forecasting modeling</td>
<td></td>
</tr>
<tr>
<td>Systems dynamics modeling</td>
<td></td>
</tr>
<tr>
<td>Agent-based modeling</td>
<td></td>
</tr>
<tr>
<td>Systematic reviews</td>
<td></td>
</tr>
<tr>
<td>Quantitative meta-analysis</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

Other quantitative methods (please specify)
**54. Which QUALITATIVE research methods and study designs are taught for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH? (Check all that apply)**

- [ ] Ethnography
- [ ] Phenomenology
- [ ] Narratives
- [ ] In-depth interviews
- [ ] Key informant interviews
- [ ] Case studies
- [ ] Realist reviews
- [ ] Focus group discussions
- [ ] Participant observation
- [ ] Historical review
- [ ] Scenario-building
- [ ] Delphi design for opinions
- [ ] Participatory action research
- [ ] None

Other qualitative methods (please specify)

---

**55. Which MIXED research methods and study designs are taught for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH? (Check all that apply)**

- [ ] Effectiveness-Implementation trials
- [ ] Mixed methods case studies
- [ ] None

Other mixed methods (please specify)
56. What discipline does this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH fall under?

- Anthropology
- Biostatistics
- Epidemiology
- Global/International Health
- Health Economics
- Health Policy or Health Systems Evaluation
- Health Policy or Health Systems Research
- Political Science
- Public Health
- Sociology

Other (please specify)

57. Do you assess individuals during this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH?

- Yes
- No

58. How are individuals assessed? (Please select all that apply)

- Exams
- Essays
- Literature reviews
- Policy briefs
- Practical assessments/role-playing
- Presentations
- Reports
- Research projects
- I do not know

Other (please specify)
<table>
<thead>
<tr>
<th><strong>59. Are teaching materials for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH available via open access?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes</td>
</tr>
<tr>
<td>☐ No</td>
</tr>
</tbody>
</table>

**Specific Health Policy and Systems Research Course 2**

<table>
<thead>
<tr>
<th><strong>60. Is there a URL or hyperlink available for these teaching materials?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes</td>
</tr>
<tr>
<td>☐ No</td>
</tr>
<tr>
<td>☐ I do not know</td>
</tr>
</tbody>
</table>

**Specific Health Policy and Systems Research Course 2**

<table>
<thead>
<tr>
<th><strong>61. URL for open course teaching materials</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
</tr>
</tbody>
</table>

**Specific Health Policy and Systems Research Course 2**

<table>
<thead>
<tr>
<th><strong>62. Are you able to share non-open access materials for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH (including a description, outline, syllabus, or learning materials)?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes</td>
</tr>
<tr>
<td>☐ No</td>
</tr>
<tr>
<td>☐ I do not know</td>
</tr>
<tr>
<td>☐ Not applicable (all materials open access)</td>
</tr>
</tbody>
</table>

**Specific Health Policy and Systems Research Course 2**

Thank you! Please send materials for this course relevant to HEALTH POLICY AND SYSTEMS RESEARCH to: hpsr_mapping@gmail.com

We will not share anything further without your explicit permission.

**Additional Courses**

<table>
<thead>
<tr>
<th><strong>63. Are you involved in any other courses relevant to HEALTH POLICY AND SYSTEMS RESEARCH?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes</td>
</tr>
<tr>
<td>☐ No</td>
</tr>
</tbody>
</table>
64. It appears that you are involved in a number of courses relevant to HEALTH POLICY AND SYSTEMS RESEARCH. Can we contact you directly to ask you further questions about additional courses not mentioned here?

☐ Yes
☐ No

65. Thank you! Please provide us with your preferred contact information:

Preferred email address: ____________________________
Preferred phone number (please include country and area codes): ____________________________

66. Could you please provide us with contact information for someone else who is able to answer similar questions regarding the additional course(s) relevant to HEALTH POLICY AND SYSTEMS RESEARCH that you are directly involved in and have not answered questions about yet in this survey (please provide name, title, email, and/or phone number):

67. Even if courses relevant to HEALTH POLICY AND SYSTEMS RESEARCH are or are not currently offered at your institution, are you aware of any plans to offer any (additional) courses in the future?

☐ Yes
☐ No
☐ I am not aware
68. Please describe any forthcoming courses relevant to HEALTH POLICY AND SYSTEMS RESEARCH:

[Blank space for description]

Follow-up Information

69. Please identify names and contact information for coordinators or course organizers for any other courses relevant to HEALTH POLICY AND SYSTEMS RESEARCH offered at your institution or beyond.

First contact name and title

First contact email address and phone number

Second contact name and title

Second contact email address and phone number

Third contact name and title

Third contact email address and phone number

70. Would you agree to be contacted by a member of the Teaching and Learning Thematic Working Group for a follow-up interview on some of the responses you’ve provided?

☐ Yes

☐ No

71. Thank you! Please provide us with the following information and someone will be in touch with you within one-to-two weeks:

Preferred e-mail address

Preferred phone number (please provide country and area codes)
72. Thank you very much for answering our screening question(s). Even though it appears that you are not directly involved with a course or an institution that meet the inclusion criteria for this study, we are seeking to gain as broad of a scope of courses as possible. Do you know anyone else at your institution or beyond that you think we should contact about relevant courses?

<table>
<thead>
<tr>
<th>First contact name and title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>First contact email and phone number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second contact name and title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second contact email and phone number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third contact name and title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third contact email and phone number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Thank you for your responses! We would like to invite you to the two sessions organised by the Teaching and Learning Thematic Working Group of the Alliance for Health Policy and Systems Research taking place at the Third Global Symposium on Health Systems Research in Cape Town (September 30–October 3):

1. Our satellite session entitled "Health Policy and Systems Research Teaching and Learning ‘Clinic’", on Tuesday September 30 from 13:30–17:00

Results from this study will be shared with participants in advance of the symposium.