

## **Challenges for Family Medicine Research: a global perspective.**

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### Declarations/ Acknowledgements

Both authors are academic family doctors, and both are or have been Officeholders in the World Organization of Family Doctors (WONCA),<sup>1</sup> whose mission is to improve people's health through developing family medicine. We therefore have a declaration of interest in ensuring research in primary care is strengthened.

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<sup>1</sup> WONCA – World Organization of Family Doctors, see [www.globalfamilydoctor.com](http://www.globalfamilydoctor.com)

## **The Scope of Family Medicine Research**

### **Introduction / abstract**

Family medicine (FM) is the most explicitly generalist speciality in medical practice – defining itself by its utilisation of interpersonal dynamics and the patient’s perspective. Its clinical scope extends across the lifecycle, from self-empowerment to end of life care; and family doctors are trained to engage with population needs as well as active demand<sup>1</sup>. Little wonder then that the scope of FM research is equally broad, and often informed by disciplines from the social as well as the epidemiological and biological sciences. From dancing for dementia to the gut microbiome, family medicine academics can justify engagement in any aspect that may affect the health of their individual patients or the communities they serve. In some countries, as much as 90 % of care in a health system is led by general practitioners (GPs) / family doctors and their teams - but the proportion of medical research coming from primary care is much less. This article reviews some of the key challenges and opportunities from a global perspective.

### **Challenge 1 – establishing a new speciality**

In many countries, doctors working in primary care settings have had no postgraduate training, and the speciality of family medicine is relatively new. Creating a new speciality needs an academic presence in universities, to give clinical, educational and research leadership, which in the United Kingdom took more than 25 years<sup>2,3</sup>. The profile of the early researchers in family medicine was crucial to attaining respect from other specialities, and to the improvement in the overall status and quality of practice<sup>4</sup>. In recent years there are several examples (e.g. Palestine, Ethiopia) where the first step towards establishing the discipline of family medicine has been in academic settings, and where our young discipline is still

challenged by the need to develop capacity to enable high impact research. This then raises the question of what such units need in terms of goals – and support.

### **Challenge 2 – building the research infrastructure**

While many health care systems worldwide are still early in the development of research units with family doctor academics and primary care-specific research programmes, many also lack the infrastructure to do research in primary care settings - partly because this sector remains underdeveloped compared to specialties based in the hospital sector. Particularly in lower income countries, there is a version of the ‘inverse care law’<sup>5</sup>, where the most needy in the population get the least good care at far too late a stage – and research and evaluation capacity is so weak that this gap often remains invisible<sup>6</sup>. This is partly because it is common for national funders of research to work with universities, clinical units, commercial providers, and charities. Such partnerships can fund research structures (networks or institutes); support academic posts and career opportunities; and undertake specific programmes of work that reflect population health needs. Primary health care, with its dispersed geographical spread and often a multitude of employers and funders, needs similar investment - but may need a more ‘networked’ model to receive and sustain academic funding and activities. Examples of countries making such investment successfully include the UK National Institute of Health Research School for Primary Care Research, and NIVEL (Netherlands Institute for Health Services Research). Notably, the U.S. National Institutes of Health lacks an equivalent structure.

**Challenge 3 – equitable resources.** The current situation reported by high income countries shows some bias in research funding towards bioscience, rather than research that is oriented to clinical practice and human behaviours. The emphasis of funders, including the

commercial sector, plays a crucial part in directing what research gets done. Translational research - defined as ‘*the principle of turning fundamental discoveries into improvements in human health and economic benefit*’<sup>7</sup> - tends to be biased towards ‘laboratory to bedside’ funding and process; but translating findings into primary, community, and societal settings may be equally challenging and important<sup>8</sup>. Figures from reports from the United Kingdom’s Clinical Research Collaboration report in 2015 showed a shift over a 5 year period towards applied research and away from pharmaceutically driven programmes: but applied research funding remained at a mere 6%<sup>9</sup>, with the primary care component of that work not specified. Even when research occurs in primary care, it may be oriented more towards acute care interventions than to disease prevention, chronic disease management and population health.

#### **Challenge 4 – getting the message across.**

To persuade others to rebalance investment towards primary care and family medicine research, there are three key arguments: relevance, ecological validity, and public accountability<sup>10</sup>. In order to decide how to spend research funding, countries frequently undertake a process of priority setting<sup>11</sup>, so that the funding will deliver to national needs with maximum value. One example of poor investment is doing the right research in the wrong place – making recommendations for clinical care based predominantly on hospital patients will overmedicalise<sup>12</sup> care, and can waste money as well as wisdom<sup>13</sup>. Data from populations and communities is the only way to understand the full picture of a country’s health: this is the rationale for building primary care-based research networks. In the U.S. the Patient Centered Outcomes Research Institute (PCORI) has invested tens of millions of dollars to build clinical data research networks with a national distribution. Such resources should facilitate research in the “real world” environment, i.e. the primary care practice.

The need for more person- and community-oriented research is also made by civil society , as we become more aware of the need to emphasise ‘integrated person-centred health services’<sup>14</sup> - to learn how best to give a voice for all citizens, achieve equitable and effective healthcare, address the ageing demographic, and minimise the costs and clinical impacts of noncommunicable diseases and mental health disorders.

Applied research includes health systems research and the need to establish effective models of health care. While there are different pathways to creating a modern health care system which achieves effective universal health coverage through strengthening primary health care<sup>15</sup>, much of the evidence and leadership for such initiatives will come through research findings and their application to policy and practice. Another lens is global health, where an emphasis on the ‘needs of the most needy’<sup>5</sup> and a drive for both clinical and intellectual equity has been championed<sup>16</sup>.

Family medicine researchers, based on these common issues and the need for equitable opportunity, have therefore argued in recent years for: 1) Much more research to be done in primary care settings; 2) Building of academic capacity that informs and engages staff and patients in the primary health care sector; 3) A focus on applied research for practice transformation – what is needed, and what works for improvement of services; 4) Prioritising multimorbidity and a patient level perspective on needs, and 5) Integrated approaches to mental health and behavioural interventions<sup>17</sup>.

### **Challenge 5 – growing academic capacity**

We have advocated for enhancing academic capabilities of the family doctor, so that everyone can understand the value of hosting or leading research; apply evidence to practice; undertake evaluative projects; and assist in original research. Many countries now offer a

Masters level qualification as part of the FM postgraduate training, and also give access to such trainings in continuing professional development programmes. This contributes also to the competencies for team leadership and service development, as people with well-trained minds and ability to conduct critical analysis can take forward improvements in practice and implement new approaches to care.

However, many countries give family doctors fewer opportunities to develop their academic competencies than other specialists. Even with a 3 or 4 year postgraduate training, the funding for further doctoral training and supervised placement in academic departments is disproportionately low. 50% of the medical workforce may be family doctors, but even in a ‘mature’ system like the UK only 6% of academic posts are held by GPs:<sup>18</sup> similar figures were very difficult to find for low and middle-income countries (LMICs). The barriers to achieving an academic component to one’s career may also relate to the diverse employment models for family doctors, where time out of the practice may be a direct personal cost rather than being part of a salaried contract. Many medical students and postgraduates also do not get the opportunity to undertake teaching and research opportunities in primary care, and may not meet family doctors as tutors - so the idea of an academic career and professional leadership in family medicine may remain invisible.

### **A programme for action**

The World Organization of Family Doctors provides a global professional network for GPs and family doctors worldwide. This group, which has existed since 1972, includes in its mission statement the need to ‘encourage and support the development of academic organizations of general practitioners/family physicians’, and hosts Research and Education Working Parties that champion the need to combine clinical practice with a learning and scholarly environment. At both national and international levels, WONCA<sup>19</sup> and its member

organisations – which include academic units – have developed guidance for those who wish to improve the outputs of research that addresses both population health needs and human factors. For more than a decade, the WONCA network has stated its concern about the importance of research in family medicine and used consensus statements<sup>20</sup> (see Table 1) as the basis for advocacy. Building on this, we suggest that:

Funders, whether governmental, charitable, or commercial, should: 1) reference their funding explicitly to include studies set in primary care settings that are of significant importance to the population and / or community; 2) allocate a specified budget to projects within health services and service delivery, including implementation research; 3) ensure that their overall programme also engages with primary health care (PHC) settings, in order to test findings for their applicability and validation in non-hospital settings, and 4) prioritise global health priorities, and include international partnerships and academic capacity building – for example, each grant awarded should include funding for a PhD student from a lower income country where academic capacity building is needed.

In parallel, academics (especially those working in family medicine and PHC units!) should champion issues of primary importance to PHC, and be more aware of the need for a global dimension on priorities and capacity building in their research. This is a ‘win win’ in research terms, as most institutions and funders regard international impact of research and international postgraduate recruitment as a sign of thriving academic success. But it also addresses the social accountability agenda<sup>21</sup>. Professional leaders can work to change the paradigm, for example by challenging funding priorities, supporting initiatives where governments align aid budgets with research<sup>22</sup>, and ensure that national and international policy is developed on these issues.

We also need to ensure that we utilise the findings of our research to advocate for the importance of family medicine and primary care research. While family medicine researchers may appreciate that family practice systems are a natural place of health and medical research and exploration, we need to let the rest of the world know that too. We urge all readers to continue to champion the academic development of family medicine, by setting expectations and fighting for equitable resources.



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<sup>19</sup> For more details of WONCA see [www.globalfamilydoctor.com](http://www.globalfamilydoctor.com).

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<sup>22</sup> See for example the U.K. Newton Fund - <https://www.britishcouncil.org/education/science/newton>

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**Table 1** Recommendations from the 2003 Kingston Conference on “*Improving Health Globally: The Necessity of Family Medicine Research*”<sup>20</sup>

- ▶ *Systematic use of research achievements in family medicine to impact on policy, health system managers, and academic leaders.*
- ▶ *Importance of data from PHC for reporting data on patterns of population health*
- ▶ *Need to provide a central repository of knowledge about family medicine research expertise, training, and mentoring.*
- ▶ *National research institutes and university departments of family medicine with a research mission should be developed.*
- ▶ *Develop practice-based research networks*
- ▶ *Strengthen ‘usual’ routes research journals, conferences, representation of family medicine research journals in databases*
- ▶ *Increased funding of international collaborative research in family medicine*
- ▶ *International ethical guidelines, with an international ethical review process,*

*When implementing these recommendations, the specific needs and implications for developing countries should be addressed.*