

Research Productivity of Senior General Practice Academicians in Australia, Canada, England/Wales , New Zealand, Scotland, and the US

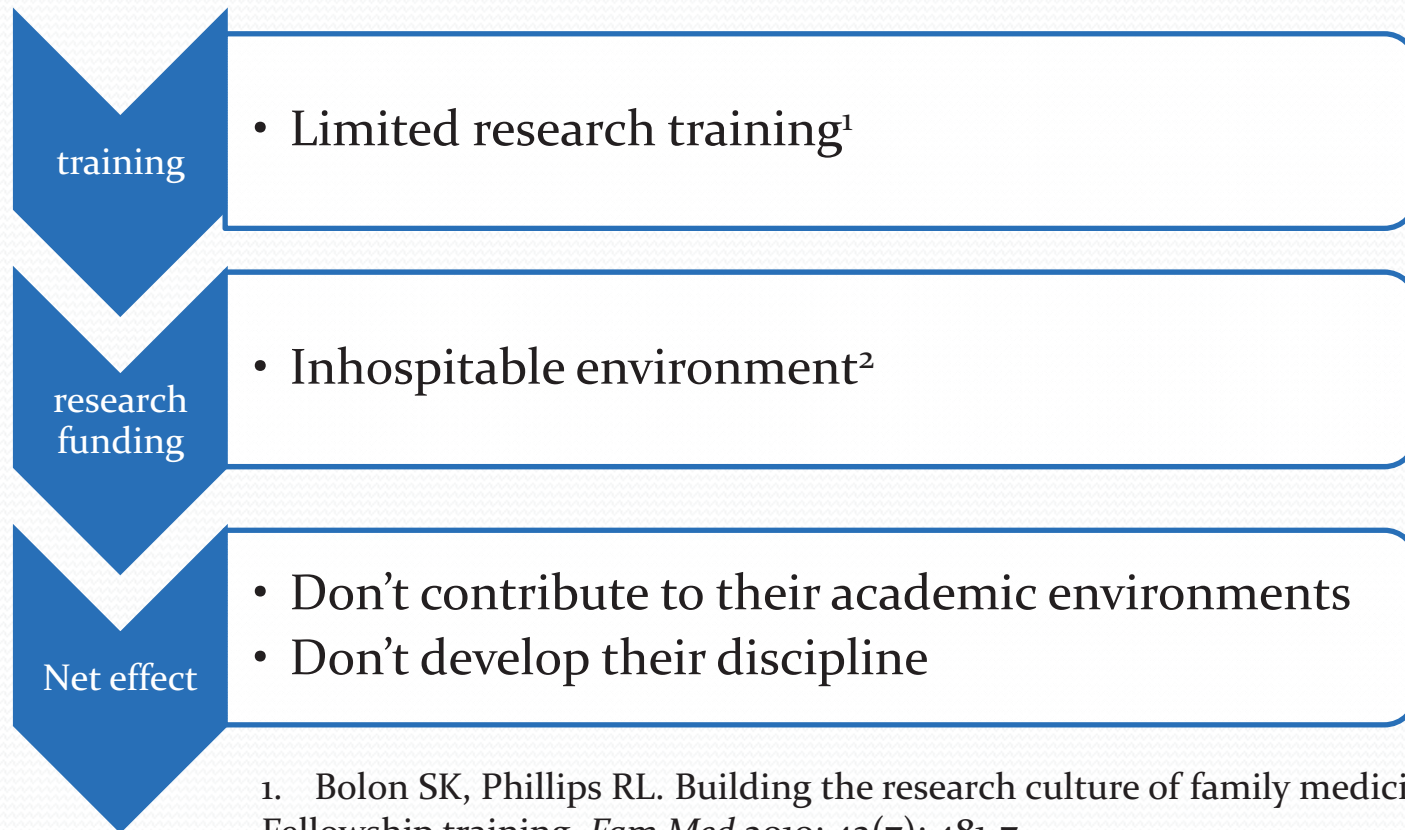
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1. University of Otago, New Zealand

2. Robert Graham Center, US


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The Problem



1. Bolon SK, Phillips RL. Building the research culture of family medicine with Fellowship training. *Fam Med* 2010; 42(7): 481-7.

2. Lucan SC, Barg FK, Bazemore AW, Phillips RL. Family medicine, the NIH, and the medical-research roadmap: Perspectives from inside NIH. *Fam Med* 2009; 41(3): 188-96.

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- About 1883, I resolved to do a series of careful observations, entirely for my own improvement, never dreaming of research, for I was under the prevalent belief that medical research could only be undertaken in a laboratory or ... in a hospital.

Mackenzie J. *Symptoms and their interpretation*.
4th ed. London: Shaw and Sons, 1921

Overarching Research Question

To what extent do Family Medicine Senior academicians fulfill the research part of the complete academic mission?





This Presentation

- What do the most prolific Family Medicine academicians write about?
- Who funds their research?



Research Design

- Medical school websites search to identify family medicine academicians (not Clinical, not Research)
- Thomson Reuters Web of Science search to collect research measures:
 - N papers published 1985-2010
 - N citations
 - H-index
- Pdf or HTML of research articles visually scanned for funding acknowledgements

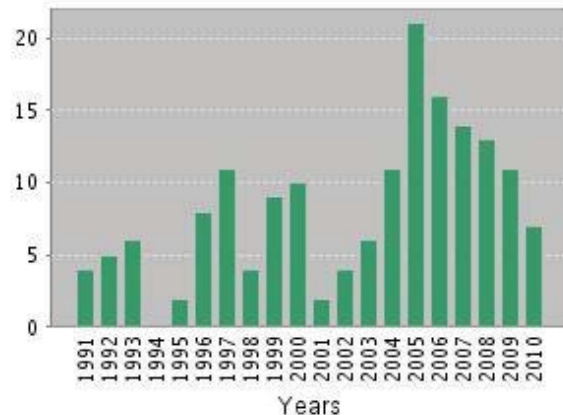


High Productivity FM academicians

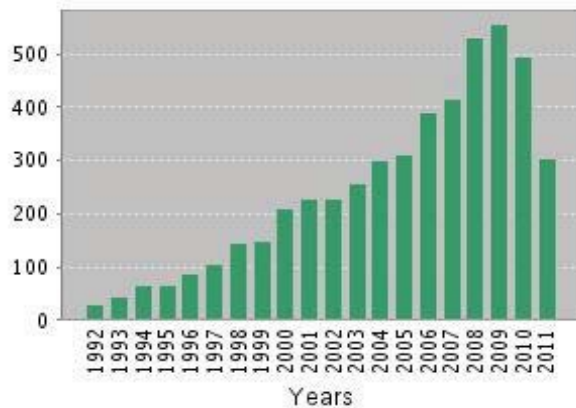
- >100 papers listed on Web of Science
- >1,000 citations on Web of Science
- H-index ≥ 15

Output from a high productivity FM academician


Published Items in Each Year



Citations in Each Year



- **Results found: 185**
- **Sum of the Times Cited: 5,015**
- **Average Citations per Item: 27.11**
- **h-index: 35**

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- Out of 517 FM academicians in 41 universities in 6 countries
 - 13 (2.5%) High Productivity FM academicians came from
 - 9 universities
 - 5 countries
 - 6 were medically qualified
 - 2 medics had PhDs
 - 4 had PhDs but no medical qualifications
 - 3 had unknown qualifications



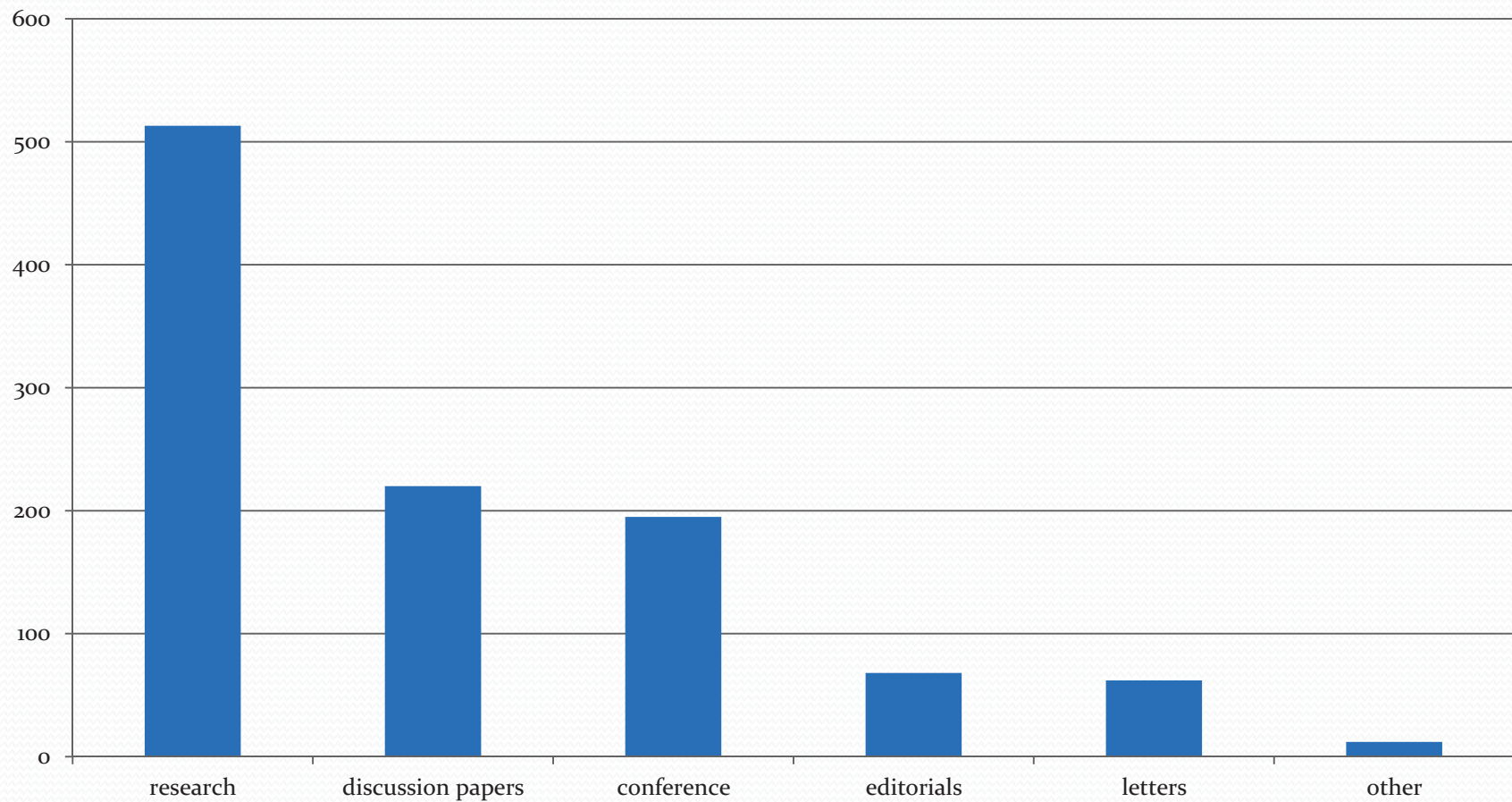
Over 25 years they produced...

- 2,534 pieces of scholarly writing
- 54,644 citations

- In THIS study, from 2001 – 2010, they produced
 - 1,071 pieces of scholarly writing
 - 21,773 citations

Types of scholarly writing 2001 - 2010

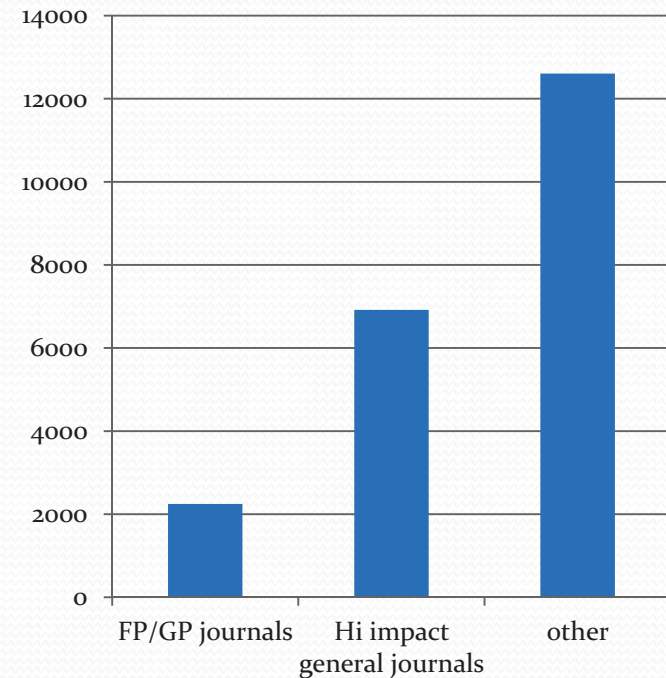
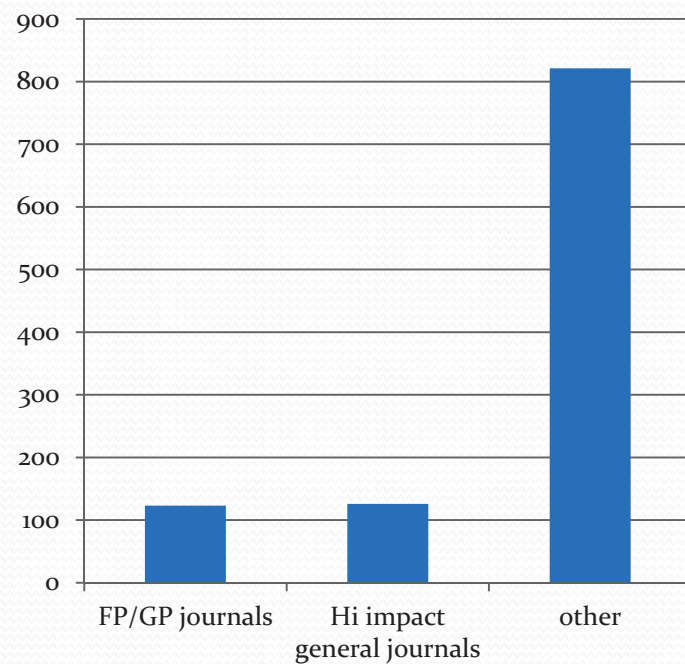
What they wrote



Where they published

Journals they published in

Citations by Journal Type



Diseases and health conditions they wrote about

- Mental health/conditions = 67
- Cancer = 53
- Cardiac and vascular = 41
- Dental conditions = 33
- Arthritis + other musculoskeletal = 17
- Diabetes = 16
- Infections = 15
- Pain = 12
- Digestive conditions = 10
- Injuries = 7
- Respiratory conditions = 6
- Eye conditions = 6
- Urinary conditions = 5
- Allergies = 2
- Skin conditions = 2
- Headaches = 2
- Hearing = 2
- Hemochromatosis = 2
- Kidney disease = 2
- Other diseases = 8

Environmental things they wrote about

- Obesity = 89
 - Other environmental things = 50
 - Diet and exercise = 47
 - Drugs and other treatments = 45
 - Genetics = 10
-
- Obituaries = 2


Family medicine-specific things they wrote about

- Core Fam Med concepts and values = 155
- Health services research = 45
- Women / children / elderly = 109
- Health policy = 21
- Medical education = 25
- Investigations = 8
- Nursing = 4



Research things they wrote about

- Research methods = 86
- Evidence-Based Medicine = 32
- Informatics = 1
- Publishing = 1



Marinker M. The chameleon, the Judas goat, and the cuckoo. *J Roy Coll Gen Pract* 1978; 28: 199-206.

- “The research of these [*general practice*] departments will be, as with all other departments in the medical school, properly concerned with a measurement of the measurable. The danger ... is that this may be all that will be taught”
- “The general practitioner in the medical school must, if he is to become credible, remain subversive.”

Who funded the 513 research papers?

- 432 (84.2%) – no funder listed
- Up to 5 separate funders, 93 in total
 - 23 (4.5%)- public research agency (e.g. NIH)
 - 22 (4.3%)- charity (e.g. RWJ Foundation)
 - 21 (4.1%) - university
 - 14 (2.7%)- government department
 - 9 (1.8%) - professional organization (e.g. AAFP)
 - 4 (0.8%) - private (e.g. drug companies)



Summary

- Large electronic databases and university websites are starting to be useful for research
- Prolific FM researchers also write a lot of other things and publish in high impact general medical journals as much as they publish in Fam Med journals
- In these 5 countries, only a small minority of prolific researchers' research was funded by the main public research agencies
 - – most research was not specifically funded



Why is this important?

- Increasing transparency increases accountability
- Provides a baseline for measuring the effect of investments and changes in research investment
- Suggests scope to develop research skills of primary care teachers:

“incomplete clinical reasoning is encouraged by the silence of clinicians who know better, but whose innumeracy makes them insecure or intimidated when confronted by statistics.” (Alvan Feinstein)



Final message

- Research questions need to spring from the realities of providing primary care services, and the outputs of primary care research need, in parallel, to make a contribution to the practice of high quality, clinically effective and cost-effective care.

Jones, R. Primary care research: ends and means

Fam Pract 2000; 17(1): 1-4