

## Editorial

# How international is the International Journal for Quality in Health Care?

The International Society for Quality in Health Care strives to ‘improve the quality and safety of healthcare worldwide through education, research, collaboration and the dissemination of evidence-based knowledge.’ The Society’s Journal aims to contribute to this goal, particularly the dissemination of (worldwide) evidence-based knowledge. But do we really reflect an international perspective?

This is not simply an issue of formal adherence to the society’s values or of political correctness. Today’s world can be described as a ‘global village,’ and increasing contact between peoples of diverse origins and backgrounds can have considerable positive value for science and development [1]. A number of efforts have been developed to specifically encourage a more global in perspective in health research [2, 3].

In the hard sciences, it could be argued that the researcher’s culture or country of origin is of little relevance, because the questions probed by the researchers are universal. Human DNA, for instance, will function much the same way regardless of social context or location. However, in the social sciences, the converse is true. Social constructs, such as quality of care, will vary from one society to the next. More importantly, health care itself is a human artefact and the ways in which health systems operate vary widely from one society to another. By facilitating the exchange of diverse ideas and experiences, we can contribute to a broader understanding of health care.

But how well does the International Journal for Quality in Health Care do at contributing to international exchanges of ideas? In order to explore this question, we examined the distribution of countries of origin of articles published in the Journal, using the ‘Web of Science’ online database. We did this for papers published in the Journal over time, in 1995–97, 1998–2000, 2001–03 and 2004–06. For the latter period, we also examined similar distributions for other scientific journals in the field of health care quality: *Quality and Safety in Health Care*, the *American Journal of Medical Quality*, *Health Services Research*, *Medical Care* and *BioMed Central (BMC) Health Services Research*.

As it turns out, about half of the articles that we publish are from developed English-speaking countries (Table 1). More than a third are from continental Europe, one-tenth are from Asia and only a handful of papers are from Africa or Latin America. Little change has occurred over time, the main being a progression of the share of continental Europe. Looking at individual countries (Appendix), the number of papers from the USA has progressed, papers from Canada have seen a strong surge in the past three years and

publications from Australia, The Netherlands, Scandinavian countries, France and Switzerland have also increased. In contrast, papers from the United Kingdom are relatively fewer. The share of published papers from developing countries has remained very low over time, with no sign of improvement. Globally, the Journal provides good access to papers from North America, Europe and Australia and New Zealand, but has not achieved a truly worldwide reach.

Our competition is not doing any better. *Quality and Safety in Health Care* publishes mostly papers from English-speaking developed countries—the United Kingdom, North America and Australia. Three other journals—the *American Journal of Medical Quality*, *Health Services Research* and *Medical Care*—publish predominantly papers from the United States, which is understandable, as they are all linked with US national professional societies. Only *BMC Health Services Research* has as diverse a pool of countries of origin for their papers as our Journal.

Diversity can be quantified. The simplest indicator is the number of countries represented. Furthermore, biologists have developed tools for measuring the diversity of species in a given biotope, the Simpson index [4] and the Shannon index [5]. Economists use an indicator of market dominance, the Kwoka index [6]. These indices can be applied to the distributions of countries of origin of published papers. The Simpson index is a summation over all countries of the proportion of papers from this country squared, i.e.  $\sum_i^n p_i^2$ . This index equals the probability that two papers randomly selected from a journal originated from the same country; a low Simpson index reflects high diversity. The Shannon diversity index is computed as  $-\sum_i^n p_i \ln(p_i)$ . It increases with both the number of countries involved and the evenness of the distribution of papers across the countries. This index has a strong theoretical foundation in information theory; a higher value reflects greater diversity. The Kwoka index is the sum of squared differences in ‘market share’ ( $p$ ) between pairs of competitors arranged in decreasing order of market share (i.e.  $p_1$  represents the share of the largest firm and  $p_n$  the share of the smallest firm), specifically as  $\sum_{i=1}^{n-1} (p_i - p_{i+1})^2$ . A low Kwoka index reflects high diversity.

These more formal analyses confirm the general impression derived from a visual examination of the distributions of countries of origin of published papers (Table 1). Our Journal and *BMC Health Services Research* publish papers from more than 40 countries, whereas the pool of their competitors is about half that number. The Simpson index is lowest for the same two journals, intermediate for Quality

**Table 1** Distribution of papers published in the International Journal for Quality in Health Care and other health services journals, by region

Year	<i>International Journal for Quality in Health Care</i>				<i>Quality and Safety in Health Care</i>	<i>American Journal of Medical Quality</i>	<i>Health Services Research</i>	Medical Care	<i>BMC Health Services Research</i>
	1995–97	1998–00	2001–03	2004–06	2004–06	2004–06	2004–06	2004–06	2004–06
Region of the world									
Anglophone countries <sup>a</sup>	89 (54.3)	110 (52.9)	99 (46.9)	127 (48.7)	281 (86.7)	105 (97.2)	316 (94.9)	509 (94.1)	206 (56.9)
Continental Europe	49 (29.9)	59 (28.4)	84 (39.8)	99 (37.9)	37 (11.4)	2 (1.9)	7 (2.1)	24 (4.4)	115 (31.8)
Asia	20 (12.2)	24 (11.5)	15 (7.1)	25 (9.6)	6 (1.9)	1 (0.9)	6 (1.8)	6 (1.1)	23 (6.4)
Africa	3 (1.8)	4 (1.9)	6 (2.8)	6 (2.3)	0	0	2 (0.6)	0	13 (3.6)
Latin America	3 (1.8)	11 (5.3)	7 (3.3)	4 (1.5)	0	0	2 (0.6)	2 (0.4)	5 (1.4)
Total countries <sup>b</sup>	164	208	211	261	324	108	333	541	362
Total papers	163	180	172	180	263	108	310	508	274
Indicators of diversity									
Number of countries	34	41	41	44	19	6	18	21	43
Simpson's index, by region	0.40	0.37	0.38	0.39	0.76	0.95	0.90	0.89	0.43
Simpson's index, by country	0.12	0.11	0.10	0.10	0.24	0.87	0.78	0.69	0.10
Shannon's diversity index, by region	1.10	1.17	1.12	1.09	0.45	0.14	0.26	0.27	1.04
Shannon's diversity index, by country	2.66	2.80	2.85	2.90	1.83	0.34	0.63	0.84	2.80
Kwoka's dominance index, by region	0.10	0.09	0.11	0.10	0.58	0.91	0.86	0.80	0.13
Kwoka's dominance index, by country	0.020	0.025	0.026	0.027	0.042	0.824	0.708	0.563	0.006

<sup>a</sup>Australia, Canada, Ireland, New Zealand, United Kingdom, United States of America; <sup>b</sup>Total countries identified exceed the number of papers as some papers have more than one country of origin.

and Safety in Health Care and highest for the three journals based in the United States. The pattern is similar for the Kwoka dominance index, and inverse for the Shannon diversity index.

While we are pleased to be among the more accessible journals for researchers from developing and transitional countries, a word of caution is in order. Indeed, a large portion of papers from developing countries stem from international cooperation projects, in which several or even all authors come from developed countries. For instance, of the 10 papers from Africa and Latin America we published in 2004–06, only five—three from South Africa [7–9], one from Mexico [10], and one from El Salvador [11]—were fully local products. This suggests that an important cause of the relative lack of papers from some countries is lack of local research capacity.

Can we do anything to increase the international appeal of the Journal? Clearly, development of research capacity in far away countries is beyond our scope of activity, but we believe in the value of examples and will always err on the side of giving a chance to papers from under-represented countries. We try to encourage submissions from Spanish-speaking countries by offering a preliminary evaluation by Dr Rosa Sunol, deputy editor at the Journal, of manuscripts written in Spanish (more on this in an upcoming editorial). Thus far, this policy has not led to increasing numbers of submissions from Latin countries. We are also intrigued by the broad *international scope of BMC Health Services Research*. This journal does not advertise a particular interest in international submissions, nor is it linked with an international society and its editorial board is as North Atlantic as they come, yet, it manages to publish papers from as many countries as we do. Possibly, the open access publication model is the reason for its international appeal. The *International Journal for Quality in Health Care* is not an open access journal, but the publisher (Oxford University Press) will give free access to the Journal contents to institutions located in developing countries. More generally we are open to exploring alternative publication models that would favour successful submissions from under-represented countries.

To close on diversity: geographic diversity is but one facet of diversity. Diversity in terms of profession, disciplinary training, gender, role in the health care system, etc. and foremost in research interests, are equally important to us. The field of quality in health care can only gain from a confrontation of diverse experiences and opinions.

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**Appendix** Distribution of papers published in the International Journal for Quality in Health Care and other health services journals, by country

	<i>International Journal for Quality in Health Care</i>				<i>Quality Safety in Health Care</i>	<i>American Journal of Medical Quality</i>	<i>Health Services Research</i>	Medical Care	<i>BMC Health Services Research</i>
	1995–97	1998–00	2001–03	2004–06					
Anglophone countries	89	110	99	127	281	105	316	509	206
Australia	12	17	14	19	40	1	1	8	19
Canada	4	7	3	18	16	3	14	41	51
Ireland		1	1	1			1		5
New Zealand	2	2	2	1	11			1	3
United Kingdom	27	26	23	23	115		6	13	69
United States of America	44	57	56	65	99	101	294	446	59
Continental Europe	49	59	84	99	37	2	7	24	115
Austria			1				1		
Belgium	1		2	2	2			2	3
Czech Republic	1								
Denmark			4	6	1			1	2
Estonia		2		2					
Finland	1		2	4	2			1	5
France	11	6	11	16	5	1	1	3	2
Germany	1	3	11	6	2		1		8
Greece	1	2	1						6
Hungary			1						1
Italy	2	2	4	4	1			4	10
Lithuania			1	1					2
Macedonia							1		
Norway	1	2	3	3	5				17
Poland		1							
Portugal	1			2					6
Serbia									1
Slovenia		1	1	1					
Spain	6	9	6	6	1	1		1	
Sweden	7	4	8	9	1			4	4
Switzerland	7	5	11	14	7			3	19
The Netherlands	9	22	17	23	10		3	5	29
Asia	20	24	15	25	6	1	6	6	23
Bahrain	1	1							1
Bangladesh	1			1	1				
China (PR)		2		1	1			1	5
India	1			1			2		1
Indonesia									
Iran	1								1
Israel	9	7	3	5				2	3
Japan	1	2	6	2	4			1	5
Jordan	1	1							
Kuwait				1					
Lebanon		1		1					
Malaysia	1		1						
Pakistan				2					
Saudi Arabia	2	2		2					
Singapore		1						1	3
South Korea		1	1	1			1		
Taiwan	1	2	2	2		1	2	1	4

(continued)

## Appendix Continued

	<i>International Journal for Quality in Health Care</i>				<i>Quality Safety in Health Care</i>	<i>American Journal of Medical Quality</i>	<i>Health Services Research</i>	Medical Care	<i>BMC Health Services Research</i>
	1995–97	1998–00	2001–03	2004–06					
Thailand		1	1	3			1		
Turkey	1	2		1					
UAE		1	1	1					
Vietnam				1					
Africa	3	4	6	6	0	0	2	0	13
Botswana				1					
Burkina Faso									1
Congo									3
Egypt	2		1						
Ethiopia							1		
Kenya		1		1			1		2
Malawi			1						1
Morocco				1					
Namibia									1
Niger			1						1
Nigeria									1
Sierra Leone									1
South Africa		2	1	3					1
Tanzania		1	1						1
Zambia	1		1						
Latin America	3	11	7	4	0	0	2	2	5
Argentina		2	1						
Brazil	1	2	1	1					1
Chile	1	2						1	
Colombia		1							
Costa Rica			1						
Cuba		1							1
Ecuador		2	1						
El Salvador				1			1		
Mexico	1	1	2	1			1		
Nicaragua				1					
Peru									1
Trinidad Tobago									2
Uruguay			1						
Venezuela							1		