

Strategies to promote increased coverage of biomedical journals from developing countries in *Index Medicus*

N.C. JAIN¹

K.SATYANARAYANA²

1 Scientometrics Unit, Division of Publication & Information ,
Indian Council of Medical Research, V. Ramalingaswami Bhawan,
Ansari Nagar, New Delhi 110029, India , e-mail : encejain@gmail.com /
encejain@yahoo.co.in

2 Scientometrics Unit, Division of Publication & Information ,
Indian Council of Medical Research, V. Ramalingaswami Bhawan,
Ansari Nagar, New Delhi 110029, India

Abstract

This paper analyzes the coverage of Member States of WHO in the *Index Medicus* (IM) 2004 .Of the 192 Member States of WHO, just 68 (35.42%) countries account for 4068 (99.27%)of the 4098 journals covered in the IM 2004. A total of 124(64.58%) Member States of WHO do not figure in the IM2004 because of the stringent inclusion criteria in the IM. Therefore, an electronic bibliographic database, "*WHOMed*" of peer-reviewed biomedical journals published in these 124 Member States, like IndMED in India, could be initiated to address the poor coverage of developing countries' literature in the global pool of scientific knowledge.

Introduction

The journal is a vital resource for R&D establishments, especially for those developing globally comparable strength and standards. Globally, total serials listed in the International Standard Serial Number (ISSN) Register of the ISSN International Centre, Paris (<http://www.issn.org>.) is **11,25,507**(as accessed on March 10, 2006). As per available estimates, there are about 250,000 periodicals in all, including 25,000 in science, technology and medicine; 15,000 being refereed scholarly periodicals. Only a fraction of these periodicals finds their way in global abstracting and indexing services because of the stringent inclusion criteria.

Material and Methods

This paper attempts to analyze the situation in the 192 Member States of WHO [1] in the *Index Medicus* 2004 which covered 4098 journals in all [2]. The important elements for inclusion of journals in the *Index Medicus*/Medline include scope and coverage, quality of content, quality of editorial work, and production quality [3].

Results

Table 1 provides six regions of 192 Member States of WHO with number of countries in each region as also an overall picture of journals covered from each country in the *Index Medicus* 2004. Table 2 gives all the six regions' coverage of journals covered from respective country of the WHO region in *Index Medicus* 2004.

Specifically, Region-wise the range of journals covered in IM2004 varied from five countries each in Regional Office for South-East Asia (Bangladesh, India, Nepal, Sri Lanka and Thailand) and Regional Office for Eastern Mediterranean (Egypt, Lebanon, Pakistan, Saudi Arabia and Tunisia) to 30 countries in Regional Office for Europe (Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Spain, Sweden, Switzerland, Turkey, Ukraine and United Kingdom). With 1985 journals, Regional Office for Europe tops the tally among six WHO Regions. However, from 12 countries in Regional Office for the America (Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Jamaica, Mexico, Panama, USA and Venezuela), USA alone accounts for more than one-third of the journals covered (1626 ; 39.68%) in IM2004 .Other two Regions contribution in IM 2004 is as follows : Regional Office for the Western Pacific, seven countries (Australia, China, Japan, Malaysia, New Zealand, Papua New Guinea and Singapore) and Regional Office for Africa, nine countries (Algeria, Ethiopia, Kenya, Madagascar, Nigeria, Senegal, South Africa, Uganda and Zimbabwe).

It seems that a whopping 124(64.58%) Member States of WHO do not figure in the IM2004. Region-wise breakup of these 124 Member States of WHO is as follows : Regional Office for Africa, 37 ;Regional Office for America, 23 ; Regional Office for South-East Asia, 6 ; Regional Office for Europe, 22 ; Regional Office for Eastern Mediterranean, 16 ; and Regional Office for Western Pacific, 20.

Table 1 : Region-wise coverage of journals in the *Index Medicus* 2004 in Member States of WHO

S.No.	Regional Office	No. of countries	Countries with journals in IM 2004	Total journals	Countries without a journal
1	Regional Office for Africa	46	9 (19.57)	20	37 (80.43)
2	Regional Office for America	35	12 (34.29)	1733	23 (65.71)
3	Regional Office for South-East Asia	11	5 (45.45)	37	6 (54.55)
4	Regional Office for Europe	52	30 (57.69)	1985	22 (42.31)
5	Regional Office for Eastern Mediterranean	21	5 (23.81)	12	16 (76.19)
6	Regional Office for Western Pacific	27	7 (25.93)	281	20 (74.07)
	Total	192	68 (35.42)	4068 (99.27)	124 (64.58)

Figures in parentheses are percentage values

Table 2 :Region-wise journals in *Index Medicus 2004* in Member States of WHO

S.No.	Countries	Journal(s)
<i>Regional Office for Africa :</i>		
1	Algeria	1
2	Ethiopia	1
3	Kenya	2
4	Madagascar	1
5	Nigeria	5
6	Senegal	1
7	South Africa	7
8	Uganda	1
9	Zimbabwe	1
	Total	20
<i>Regional Office for the America :</i>		
1	Argentina	8
2	Brazil	19
3	Canada	58
4	Chile	4
5	Colombia	2
6	Costa Rica	1
7	Cuba	1
8	Jamaica	1
9	Mexico	9
10	Panama	1
11	USA	1626
12	Venezuela	3
	Total	1733
<i>Regional Office for South-East Asia :</i>		
1	Bangladesh	3
2	India	28
3	Nepal	1
4	Sri Lanka	1
5	Thailand	4
	Total	37
<i>Regional Office for Europe :</i>		
1	Austria	15
2	Belgium	21
3	Bosnia and Herzegovina	1
4	Bulgaria	6
5	Croatia	8
6	Czech Republic	22
7	Denmark	61
8	Finland	5
9	France	89
10	Germany	239
11	Greece	6
12	Hungary	12
13	Ireland	38
14	Israel	5
15	Italy	87
16	Lithuania	1
17	Luxembourg	1
18	Netherlands	227
19	Norway	26
20	Poland	52
21	Portugal	3
22	Romania	13
23	Russian Federation	60
24	Slovakia	5
25	Spain	46
26	Sweden	19
27	Switzerland	129
28	Turkey	9
29	Ukraine	6
30	United Kingdom	773
	Total	1985
<i>Regional Office for the Eastern Mediterranean :</i>		
1	Egypt	4
2	Lebanon	2
3	Pakistan	3
4	Saudi Arabia	1
5	Tunisia	2
	Total	12
<i>Regional Office for the Western Pacific :</i>		
1	Australia	38
2	China	70
3	Japan	148
4	Malaysia	2
5	New Zealand	16
6	Papua New Guinea	1
7	Singapore	6
	Total	281
68	Grand Total	4068

Discussion

In view of the foregoing, an electronic bibliographic database, "*WHOMed*" of peer-reviewed biomedical journals published in these 124 Member States, like IndMED in India[4], could be initiated to enable researchers to access biomedical literature of these countries also. The IndMED database covers over 70 prominent peer reviewed Indian biomedical journals, majority of which are not indexed in major international indexing and abstracting services like the *Index Medicus*. This proposed database, "*WHOMed*" may also include all those peer reviewed journals which are **not** included in the *Index Medicus* from 68 Members States. This will address to some extent the poor coverage of developing countries' literature in the global pool of scientific knowledge.

This will be a welcome addition to the existing journal literature initiatives *viz.*, directory of open access journals, free medical journals site, PubMed, BioMed Central (BMC) and Health InterNetwork Access to Research Initiative (HINARI) [5-9].

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