Title:

Occupational lung disease; the need for a global surveillance system

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SHORT TITLE: GLOAL SWORD SCHEME

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Occupational lung disease; the need for a global surveillance system

Dear Editor,

We read with great interest the editorial by Reynolds & Blanc [1] on "Forging effective surveillance for work-related lung disease". On its 30th anniversary, the authors cleverly looked at initial objectives of Surveillance of Work-related and Occupational Respiratory Disease (SWORD) programme and how these objectives have been met over the last three decades.

There is one point that we would like to add to what Reynolds & Blanc [1]wrote about SWORD. This is the potential to globalise the successful SWORD surveillance system for capturing international data with a view to improving the health and well-being of all workers globally. A good indication is the recent epidemic of accelerated stone silicosis, which such a global surveillance system could have detected earlier.[2,3]

In order to successfully run an international surveillance programme, expertise around the world in this niche area seems to be essential. In this context, ~~the present study~~Web of Science was ~~performed~~ searched between 1970 and 2020 ~~with~~ for ~~the aim of examining~~country of affiliation of authors of papers on asbestos-related lung disease, occupational asthma, hypersensitivity pneumonitis and silicosis. The following terms were searched: ~~what proportion of publications on topics of asbestos-related lung disease, occupational asthma and silicosis are contributed by different countries.~~

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Asbestosis, pulmonary fibrosis - from Asbestos Exposure, Idiopathic Interstitial Pneumonia -

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- Silicosis, anthracosilicosis, silicotuberculosis, progressive massive fibrosis

- Occupational asthma, occupational asthmas, work-related asthma, work-exacerbated asthma, work-aggravated asthma

- Hypersensitivity Pneumonitis, Respiratory Hypersensitivity, Extrinsic Allergic Alveolitis, Extrinsic Allergic Alveolitides, Bird Fancier's Lung, Farmer's Lung, Silo Filler's Disease, Trichosporonosis

The results show that the G7 countries which are seven largest economies in the world have been the most active countries in producing knowledge in the field of occupational lung disease (the United States, Japan, the United Kingdom, Canada, France, Germany and Italy).

More importantly, figure 1 shows that there are parts of the world, including Africa, the Gulf countries, Eastern Europe and South America with minimum or no activities in occupational lung disease publications. These countries are likely to benefit the most from occupational health input for respiratory disorders.

A minimum activity on producing knowledge about occupational lung diseases in a large proportion of the world is a good indication of a lack of information on occupational lung diseases in those countries. As the global burden of lung disease is not evenly distributed

between countries [4] this risks research evidence being of variable validity to the needs of workers in different countries. This may demonstrate the applicability of the "Inverse Care Law" [5] . This is defined as "availability of good medical care tends to vary inversely with the need for it in the population served" [5] .

In order to empower policy-makers to tackle occupational lung diseases globally, there is a need for an international SWORD system to capture data in order to inform policies. A first step to achieve this could be to train professionals in those countries with less activities in this field to have a meaningful input to the international SWORD system. Setting up distance learning courses on occupational lung disease seems to be an appropriate starting point to reach the final objective of a global SWORD scheme.

References

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