

Australian Sentinel Practice Research Network

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Background

During the 1970s and 1980s the state-based Research Committees of the Royal Australian College of General Practitioners (RACGP) in South Australia and New South Wales developed independent networks of sentinel general practices. The networks monitored a number of conditions, but did not work cooperatively.

In the late 1980s Dr Ian Steven, as the head of the RACGP research secretariat, brought the networks together and expanded the project into other states, leading to the establishment in 1990 of the Australian Sentinel Practice Network (ASPREN), a national group recording infectious and other diseases.

Each year since then a small, dedicated group of general practitioners record basic epidemiological data on up to 14 conditions.

Method

Late in each year a meeting of interested people consisting of a mix of RACGP members, academic general practitioners and epidemiologists, is held to determine the conditions to be recorded in the following year. The choices are made from the interests of the group and expressions of interest from groups or people external to the RACGP. A strong emphasis is given to recording information that will be used for research. As well as determining the conditions, this group also approves the definitions that the general practitioners will use.

Forms that can be optically scanned are then printed and distributed to the network. Each time a general practitioner sees a patient who meets the criteria, the general practitioner records gender and age range. At the end of each week the form, which also includes details to identify the doctor and the total number of patients seen by the general practitioner in that week, is returned to the RACGP in South Australia. The records are scanned on a weekly basis and the data analysed on a rolling basis. At this stage, crude data are used to provide weekly estimates of prevalence.

Reporting

Each week, interim reports are sent by email to interested parties. Every three months recorders receive a consolidated report allowing them to compare their practice to the rest of the recorders. In future, recorders will also receive educational literature relating to the topics being recorded.

Recorders earn 20 points toward the continuing education requirements of the RACGP.

The management group and researchers who have nominated a topic receive the crude analysis on a weekly basis and the final total collection of data at intervals during the year. *Communicable Diseases Intelligence* reports the ASPREN infectious disease data quarterly. An annual report is prepared which overviews each condition.

Strengths of the ASPREN network

ASPREN is a national network that monitors conditions seen in the community by general practitioners. The results are collated and disseminated electronically on a weekly basis. ASPREN data are timely and sensitive to temporal and seasonal changes in disease prevalence.

Weaknesses of the ASPREN network

There are two significant weaknesses of the network.

1. The distribution of the recorders does not cover all of Australia. Almost all recorders are in urban practice. Some jurisdictions (Western Australia, Victoria, Tasmania, the Northern Territory and the Australian Capital Territory) have few or no recorders.
2. We have not ascertained whether the doctors undertaking the recording are typical of other general practitioners in Australia.

These limitations severely restrict the ability to generalise the results to the rest of Australian general practice. Attempts have been made to overcome these limitations, but financial restrictions have prevented such projects.

Another problem resides in the denominator used for analysis: the number of consultations. In Australia it is not possible to use community size as the denominator as this is unknown. In the United Kingdom, where a capitation system is used it is possible to extrapolate to the community level.

What would improve the network?

Currently the South Australian Faculty of the Royal Australian College of General Practitioners funds the network from other resources of revenue. ASPREN needs to be funded effectively and needs the support of the medical community to be able to recruit more recorders and to undertake the research that is relevant and accurate.

Examples of findings

The prevalence of influenza-like illness has been monitored since the inception of the network. We have been able to show in 2001 and 2002 that New South Wales had a far higher prevalence of the disease than the other jurisdictions. A decreasing prevalence of influenza in the 65 and over age group has also been evident.

We have also been able to demonstrate variations in prevalence of gastroenteritis by state and territory, with higher levels of presentation to general practitioners in Queensland and Western Australia.

It also appears from our work that general practitioners in Victoria offer immunisations less frequently than other states. Possibly patients attend other services for immunisations.

Special investigations

At times, we have been asked to undertake special investigations or analyses. It is now possible to change the conditions being recorded during the year and short-term special investigations can be carried out.

At one time, in South Australia, ASPREN showed a high prevalence of influenza-like illness but surveillance at the viral laboratory did not support this. Recorders in Adelaide were asked to take blood specimens from some of these patients which showed the virus causing the outbreak of 'flu' was respiratory syncytial virus.

A few years ago an outbreak of acute flaccid paralysis associated with hand, foot and mouth disease occurred in Perth. The ASPREN recorders in South Australia were asked to record cases of hand, foot and mouth disease. Thankfully there was not an increase.

We have also provided information to researchers. Investigations into water quality have tried to match water quality with the prevalence of gastroenteritis.

Restrictions

Any researcher can access raw data, but data from individual general practices remain confidential. Where more than one recorder works in a given postcode region we are able to provide data by postcode. The small number of recorders limits this facility.

Contacts

We are always on the lookout for recorders and any general practitioners wishing to become a recorder should contact:

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Researchers interested in projects or further information should contact:

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