MORE than half of Australia’s clinical trial activity targets at least one of the nine national health priorities presenting the greatest burden of disease to the community, according to an analysis published today.

However, trial activity for obesity, dementia and asthma interventions was found to be substantially less than the level expected from their contribution to total disability-adjusted life-years (DALYs), the research in the MJA found. (1) [https://www.mja.com.au/journal/2015/203/2/australian-clinical-trial-activity-and-burden-disease-analysis-registered-trials]

Professor Anne Kelso, NHMRC CEO, told MJA InSight that although the study highlighted some discrepancies between clinical trial activity and burden of disease, it was encouraging to see that the general relationship was relatively strong.

She said many other factors influenced a country’s research activity, including Australia’s place in the global research community.

“It is important not to see Australia in isolation. Obviously there’s a tremendous amount of clinical trial activity going on in other parts of the world, so we have to see Australia’s trials in the context of global activity.”

In comparing Australia’s clinical trial activity with its nine National Health Priority Areas (NHPAs), the researchers found that trial registrations and planned recruitment were highest for cancer, cardiovascular disease and mental health, which roughly reflected the DALY ranking for these three areas.

Other NHPAs fared less well. The researchers found that there were less than half as many investigations into dementia and injury interventions as would be expected given their DALYs. The proportions of obesity and asthma trials were also lower than expected.

The researchers said the apparent shortfall of clinical trial activity in these areas should be examined, but noted that clinical trials might not be appropriate to all research questions in health priority areas.

Professor Garry Jennings, director and CEO of Baker IDI Heart and Diabetes Institute, said the study’s focus on clinical trials rather than total research activity limited its usefulness.

Professor Jennings told MJA InSight that in areas where clinical trial activity seemed to be low, such as asthma, there could be a great deal of research effort focused on identifying biomarkers or mechanisms, or on other non-interventional research.

“Clinical trial activity is driven to a large extent by pharmaceutical companies”, he said, adding that this did not necessarily reflect the thinking or priorities of Australian clinicians.

However, counting trials and trial participants was not informative given the varying needs and maturity of different therapeutic areas.

“If you have what I would call a fairly mature therapeutic area, where you have a really good existing set of therapeutic options … you have to have thousands and thousands of patients in the trial because there is only likely to be a very small incremental benefit”, Professor Jennings said.

In a new therapeutic area, far fewer trial participants might be needed to show that a therapy was important and significant.

Professor Kelso agreed that the maturity of a field influenced research activity, as did the nature of a disease.

“There can be all sorts of barriers, depending on the disease and the population group you’re trying to protect, in how easy it is to establish the trial.”

Professor Kelso said, for example, it was easy to recruit later-stage cancer patients for a clinical trial of a new therapy, but not as easy to recruit children with type 1 diabetes in the early stage of the disease.

The NHMRC’s most recent funding report showed that in 2013 more than half of NHMRC-funded research projects targeted NHPAs. (2) [https://www.nhmrc.gov.au/grants-funding/research-funding-statistics-and-data]

Professor Kelso said most NHMRC funding was in response to investigator-led applications and was awarded according to the quality of these submissions, but there was flexibility to fund certain priority areas.

“We have a particular concern in Australia about Aboriginal and Torres Strait Islander health and we attempt to fund disproportionately in that area because it’s a special problem in Australia.”

Professor Robyn Ward, deputy vice chancellor (research) at the University of Queensland and director of the Translational Cancer Research Network, said there were lots of different types of clinical research and some were suitable to these sort of clinical trials, while others were better done in observational trials.

For instance, Professor Ward said in an area like obesity, it was likely that drugs and the types of interventions that are tested in clinical trials were not always the best solutions in practice.

“It might be things like exercise and diet, and they are not usually tested in these types of clinical trials”, she said, with the MJA research finding less than 15% of trials tested prevention interventions.

1. MJA 2015; 203: 97-101
2. NHMRC Research Funding Facts 2013

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