

Submission to Productivity Commission, August 2025

Comments on the report

“Delivering quality care more efficiently”

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Summary

This submission represents my personal opinions based on my engineering research and practice career since the 1970s. While I am a member of Engineers Australia, and Emeritus Professor at The University of Western Australia, this submission does not represent the views of either organisation.

This submission provides comments on the core report *Delivering quality care more efficiently*.

The interim report addresses reform and safety regulation, integration of care services, and investment in prevention.

However, the report could be strengthened significantly by addressing some gaps that are apparent to this writer.

First, what is the objective of care?

How can we know when care is sufficient?

Without addressing this critical consideration, we will not be able to contain an ever-increasing demand for care. I will make some suggestions in the paragraphs that follow. However, this is a question that demands an answer from our whole community, not just an individual.

How about this... enabling a person to participate in society, transcending their abilities, taking into account their wishes?

This definition, or words like it, opens the aim of helping people overcome limitations that might be apparent from their range of abilities, to the extent we can. For example, we enable deaf people to hear with cochlear implants. We provide mobility for people who would otherwise be immobile with motorized wheelchairs and other mobility aids.

A crucial question, then, is the extent to which this is possible, given our resources. Here it is important to gain community consensus on what is and is not possible, to avoid disappointment, and unrealistic expectations from families with care responsibilities.

The interim report could be strengthened further by opening up the development of devices, technologies and methods that enable us to achieve the objective above with less time, effort, materials, energy, and health risks. In other words, we could engage engineers to continually extend our capacity for people to transcend their abilities, while reducing the resources and financial investment needed to achieve that objective.

The vision of the interim report is of an integrated care system that delivers the objective for people who need it, while investing in preventative measures that avoid the need for care. I presume that means an integrated system storing information on people with their needs for care and solutions. Achieving this, in turn, could provide a wealth of data enabling innovators to understand the market for new devices, technologies and methods so they can develop commercially viable solutions, not only for Australia, but also for people in our region. Few other countries could provide such insights and government assistance for the innovation process.

In my response to the interim report *Growth mindset: how to boost Australia's productivity*, I have pointed out the need to improve government support for innovation by adjusting the spending criteria for the R&D Tax Incentive Scheme. My comments have been based on my own commercialization experiences. Those improvements would increase the effectiveness of measures to encourage the development of new care devices, technologies and methods. As foreshadowed in my comments, encouraging these innovations could open up a large and productive export-oriented sector in the economy, significantly surpassing what we see today.

Again, in my response to the interim report *Harnessing data and digital technology*, I have pointed out the potential for building on Australia's robotics and artificial intelligence capabilities to enable people of diverse abilities to fully participate in society to the extent they wish for. For example, I pointed out the need to develop

devices to enable people with diverse abilities to use smart phones, or gain equivalent access to the digital communications and control technologies developed in recent years.

So, in conclusion, I think that this report could be stronger with a discussion on the objectives of care, and a recommendation to foster innovations that can also help enable us, as a community, to deliver care more effectively and with less resources per person. In other words, increasing productivity. By enabling people of diverse abilities to participate more fully in the community, we could also open up new employment possibilities as well.

Policy suggestion - competitions

One of the most effective ways to stimulate innovation in robotics and automation has been to sponsor competitions. DARPA (US Defence Advanced Research Projects Agency) sponsored an annual competition to encourage the development of self-driving vehicles which led to commercial ventures now being pursued in many countries. While there are still relatively few self-driving vehicles on public roads, many innovations have already reached production vehicles such as reversing and parking sensors, adaptive cruise control, semi-automated parking and blind spot warning devices.

In the same way, the NDIS and other national agencies have sufficiently large budgets that sponsoring similar robotics and automation challenges could readily be accommodated. Similar competition formats could be aimed at developing ideas for preventing people from developing conditions that require long-term care.

Particularly in the case of robotics and automation, sponsoring a competition in the care sector, with suitable publicity, could attract many female students to fields such as computer science and robotics which hitherto have been predominantly disciplines for male students.