

Senate Community Affairs Committee

ANSWERS TO ESTIMATES QUESTIONS ON NOTICE

HEALTH AND AGEING PORTFOLIO

Supplementary Budget Estimates 2011-12, 17 October 2012

Question: E12-170

**OUTCOME 12:** Health Workforce Capacity

**Topic:** PROJECTED WORKFORCE SUPPLY

**Type of Question:** Written Question on Notice

**Senator:** Senator Boyce

**Question:**

What is the projected shortfall of doctors and nurses in 5 years time; in 10 years time?

**Answer:**

On 28 April 2012, Health Ministers released a report produced by Health Workforce Australia titled Health Workforce 2025 – Doctors, Nurses and Midwives (HW 2025). This report identifies the likely continuation of health workforce shortages out to 2025 for doctors and nurses, with the magnitude of shortage likely to be highly significant for nurses and less so for doctors.

Projections for doctors under a status quo / no policy change (comparison) scenario indicated that until 2023 supply is greater than projected demand, with supply falling below demand at the end of the projection period.

**Doctors**

	2012	2017	2022	2025
Supply	81,810	96,025	105,012	109,225
Demand	79,691	92,393	104,642	111,926
<b>Shortfall</b>	<b>2,119</b>	<b>3,632</b>	<b>371</b>	<b>-2,701</b>

A series of different scenarios were undertaken and the results of these different scenarios are provided below.

It should be noted that all results, including the baseline scenario are projections. These projections are subject to data updates and future policy decisions by governments, education, training and other key stakeholders.

A brief description of each of the scenarios presented in the tables below is provided for your reference. The scenarios seek to capture the outcomes for the future health workforce arising from a range of innovations and reform which could include changing models of care, changes to scope of practice, reduced demand through improved preventative health measures and retaining existing employees in the workforce through improved practice and workplace environments.

## Description of the scenarios

- **Comparison scenario.** This scenario is a technical construct for modelling purposes that enables a comparison of the relative effects of the other scenarios. It is not a prediction of the future. It should be interpreted as a 'do nothing' / status quo scenario in which the conditions in 2009 are projected into the future without significant change. This allows an assessment of the effects of other changes which may impact the workforce.
- **Productivity scenario.** This scenario presents the impact on workforce supply and demand projections of a five percent productivity gain over the projection period. In this scenario, the productivity gain is not attributed to any particular measure, but could include gains achieved through workforce reforms such as changing models of care, adjustments to skill mix, health professionals working to their full or expanded scope of practice, and technology changes (such as eHealth or Telehealth). Current Health Workforce Australia (HWA) reform projects, if successfully implemented and adopted nationally, will assist in such gains and include expanding scope of practice and the use of assistants. Given the history of relatively low increases in health workforce productivity, a five per cent productivity improvement was seen as realistic, if not ambitious.
- **Low demand scenario.** This scenario models the impact of a reduction in demand that may stem from the effects of health reform measures or other systemic changes that would lower the use of health services by the general population, or a reduction in the demand for particular categories of health worker. A notional value of decreasing demand by two percentage points was selected for modelling (with a minimum value of one per cent).
- **Workforce retention – changing exit rates.** This scenario models the impact on nursing workforce supply from improvements in the nursing retention rate. An improved retention rate may stem from changes to the practice and workplace environments such as the ability to work at the full scope of practice; flexible work arrangements that support family responsibilities; management of non-nursing/administrative tasks; professional development and career pathways.
- **Medium and high self-sufficiency scenario.** This scenario presents the results of moving towards a medium and high level of self-sufficiency, a 50 per cent and a 95 per cent reduction in net overseas migration by 2025. This is particularly pertinent to the medical workforce which is currently highly reliant on international medical graduates.
- **High demand scenario.** This scenario models the impact of an increase in demand for the health workforce that may stem from changed community expectations; increases in per capita health service utilisation above rates predictable by known effects such as the ageing of the population and burden of disease; or through changed work practices. A notional value of increasing demand by two percentage points was selected for modelling.
- **Undersupply – existing workforce imbalance.** For the purposes of modelling, it was assumed that demand in the initial year of the projections equates to supply. However the consensus among most stakeholder groups and available evidence is that the existing system is in undersupply. As no consistent method of identifying a pre-existing shortage could be determined, this scenario was developed to demonstrate the impact on the workforce where a five per cent undersupply is assumed from the initial year of modelling.
- **Capped working hours –** This scenario demonstrates the effect of a reduction of working hours for all doctors. The effect was assessed by capping the total number of hours worked by the total medical workforce at a notional value of 50 hours per week. This was then converted to a head count equivalent to show the reduction in medical workforce supply implied by this change.

Scenario	2016 (Headcount)			2025 (Headcount)		
	Supply	Demand	Gap	Supply	Demand	Gap
<b>Doctors</b>						
Comparison	93,687	89,903	3,784	109,225	111,926	-2,701
Productivity gain	93,687	87,966	5,720	109,225	106,413	<b>2,811</b>
Low demand	93,687	80,655	13,032	109,225	90,536	<b>18,690</b>
Medium self-sufficiency	91,956	89,903	2,053	102,626	111,926	<b>-9,300</b>
High self-sufficiency	90,398	89,903	495	96,686	111,926	<b>-15,240</b>
High demand	93,687	100,019	-6,333	109,225	135,349	<b>-26,124</b>
Undersupply of 5%	93,687	94,430	-744	109,225	117,615	<b>-8,389</b>
Capped working hours	91,687	89,863	1,824	106,781	111,960	<b>-5,178</b>

For nurses the projections indicate that demand will out-strip supply during the entire projection period under the comparison scenario.

### Nurses

	2012	2017	2022	2025
Supply	283,062	294,375	284,161	280,442
Demand	283,181	325,018	358,141	389,932
<b>Shortfall</b>	<b>-119</b>	<b>-30,643</b>	<b>-72,104</b>	<b>-109,490</b>

The table below provides the results of the projections based on a series of different scenarios. The projections are subject to data updates and policy decisions by governments, education, training and other key stakeholders.

Scenario	2016 (Headcount)			2025 (Headcount)		
	Supply	Demand	Gap	Supply	Demand	Gap
<b>Nurses</b>						
Comparison	296,552	316,632	-20,079	280,442	389,932	-109,490
Productivity gain	296,552	309,705	-13,153	280,442	370,435	<b>-89,993</b>
Low demand	296,552	282,551	14,002	280,442	311,797	<b>-31,355</b>
Workforce retention	318,578	316,715	1,863	367,240	392,086	<b>-24,846</b>
Medium self-sufficiency	292,370	316,632	-24,261	260,114	389,932	<b>-129,818</b>
High self-sufficiency	288,606	316,632	-28,025	241,819	389,932	<b>-148,113</b>
High demand	296,552	353,109	-56,557	280,442	473,565	<b>-193,122</b>
Undersupply of 5%	296,552	329,657	-33,105	280,442	402,997	<b>-122,555</b>

The information provided above is available publicly on the HWA website - <http://www.hwa.gov.au/health-workforce-2025> Refer to Volume 1 of the Health Workforce 2025 – Doctors, Nurses and Midwives report (pages 7-19).