Paying for the health workforce

Payment systems should be considered more often as a policy intervention to improve health system performance

Introduction.
Payment and funding are often regarded as administrative transfers. Yet funding is rarely provided without strings attached. Where funding and remuneration are made conditional on certain behaviours (eg working a set number of hours, seeing a certain number of patients, undertaking specific tasks or tasks of a certain standard, or a ‘doing a good job’) financial incentives are created. These can have material impacts on health professionals’ behaviour, access to health care, the performance of the health system, and population health. Changing the level and method by which health professionals are paid therefore has the potential to be used to address health workforce shortages, the mal-distribution of health professionals across specialties, sectors, and geographic areas, and improve the quality and costs of health care provided.

Many countries have experienced recent growth in pay for performance schemes and changes in the level and methods of remuneration of health professionals, with most focussing on doctors ¹, ². There is less attention in health policy as to how salaried employees (eg nurses) are paid, though the arguments about the importance and role of pay are equally important given the current growth in the number of practice nurses for example ³.

A key issue that often prevents research in this area, and therefore prevents an evidence-base from developing, is that changing the level and method of payment for health professionals is contentious. National data on earnings are difficult to come by, and it is viewed as risky by politicians given the often protracted and contentious industrial negotiations that may be required when health professionals view change as not only a potential threat to their earnings but also to their autonomy. The Australian report on re-aligning the relativities of rebates in the Medicare Benefits Schedule is one example where the results were not acted upon due to strong professional interests favouring the status quo ⁴. In practice, many changes to doctors’
remuneration in other countries have not resulted in a loss in earnings and indeed have often
delivered large gains in earnings, such as the Quality and Outcomes Framework for GPs in the
UK\(^1\) The issue for governments and employers is the extent to which the additional payments
result in improved performance or increased access to health care \(^5\).  

**What does the health workforce cost?**

There is no single source of information on the national cost of the health workforce in Australia. The variety of state, federal, and private employers, insurers and patients who provide funds make it difficult to separate out remuneration of the health workforce from other revenue (non-capital) expenditure. The opportunity costs of the health workforce should be a measure of the value of their time, usually their gross (before tax) personal earnings, and any on costs for employees (e.g., superannuation) incurred by employers. For self-employed health professionals this is difficult to estimate as they may also receive a share of profits from their business as personal income. The main source of data is the Australian Institute of Health and Welfare (AIHW) who split health expenditure up into a number of sources \(^6,7\). However, payments from Medicare and private health insurers are gross payments and will include an element of non-salary practice expenses and so may be overestimated. AIHW data are aggregated and do not provide detailed information on the source of its estimates. For example, it is not clear whether the AIHW data include the costs of salaried health professionals and admin staff in private sector organisations such as small businesses in general practice and allied health, though there are data from the Australian Taxation Office website on the salary bills for companies, partnerships, and trusts \(^8\). Though the census contains data on the earnings of a range of health professional groups, these data are top-coded at $100,000 and so do not provide good estimates for many groups such as medical practitioners, dentists, and senior managers. The most comprehensive national source of data on the income and earnings of health professionals will be the Australian Taxation Office, though apart from some summary data on their website these data are difficult to access \(^9\).

The opportunity cost of a new health professional does not just include their lifetime earnings, but also their training costs. However, there are no national data covering the spectrum of
training from undergraduate education, pre-vocational training, vocational training, and training and supervision of migrants. The lack of data is very surprising given that decisions are being made about training extra doctors and nurses without knowledge or evidence of the costs or the benefits in terms of improvements in population health. Training costs are borne by a mix of Federal and State governments, education institutions, and individuals paying for some or all of their own education expenses. These funders face different sets of incentives with little co-ordination between them. Post-graduate training, and its costs, are integrated into the delivery of public hospital services and so are difficult to separate out from the figures on the costs of public hospital staffing. Given the major growth in the number of medical students and other types of health professional, the costs of training are expected to grow substantially though by how much is uncertain.

**Do different levels of payment matter?**

Changes in the level of pay have been shown to influence hours worked for doctors and nurses, specialty choice of doctors, and recruitment and retention. The impact of higher hourly earnings is to increase hours worked and workforce participation, with this effect being relatively small, but usually statistically significant, in most labour supply models for both doctors and nurses. There is also the possibility, though little strong evidence, of ‘backward bending’ labour supply for doctors on relatively high incomes: where higher earnings cause a fall in hours worked as doctors prefer to spend their higher income on more leisure time. Weak evidence can be observed in aggregate data for Australian doctors where the average hours worked for doctors are falling whilst the costs of medical services are increasing, and fewer patients are being seen. The effect of relative earnings on specialty choice is particularly important for doctors choosing to work in primary care, where more doctors are needed because of the growing burden of chronic disease that should be treated outside of hospitals.

How levels of pay are set can also influence recruitment and retention and therefore access to health services. Pay that is set under bargaining agreements and so is relatively fixed across a large geographic area provides a stable income for employees, but employers are not able to alter pay in order to solve local recruitment and retention problems. Other occupations compete for the skills of nurses and other health professionals, and there is evidence that when these
competing occupations’ wage rates are high, public hospitals experience recruitment and retention problems and higher vacancy rates, and higher mortality rates and quality of care. A degree of pay flexibility could therefore ease recruitment and retention difficulties, potentially improve health status and quality of care, at the cost of potentially higher health expenditures and increased inequity of pay between staff with similar experience. There are also incentives for performance embedded in salary scales for employees, with gaps between each increment in the scale, and promotion opportunities, creating financial incentives for improved performance, and clearly defining career trajectories. For some health professionals, such as practice nurses, these career structures are not well developed. Unions prefer equity of pay through ‘short’ scales with small gaps between each increment, whilst employers prefer longer scales with larger gaps to encourage higher and increasing levels of performance. There is evidence on these issues in other industries, but little in health care. The important issue is that how salaries are set and the outcome of wage and or fee bargaining can have important effects on recruitment, retention, access to health care, costs, and population health that often go unrecognised.

One aspect of this is that different levels of payments across geographic areas can be used to improve recruitment and retention into underserved areas. In Australia this is a significant issue, yet the evidence for the effectiveness of the use of financial incentives in recruitment and retention in underserved areas is very weak and plagued by poor study designs, such that little is known about the effectiveness of such incentives. Careful evaluation of Australian schemes has not been conducted, resulting in a large gap in the evidence in this important policy area.

**Do different methods of paying health professionals matter?**

There is also a large literature examining changes in the method by which health professionals, largely doctors, are paid. Cochrane reviews have all found that different methods of payment (eg. fee-for-service, capitation, salary, and pay for performance/bonuses) all influence clinical behaviour and the quality of health care provided, though the evidence is mixed and of variable quality. There is an emerging consensus that fee-for-service payment does not encourage optimal care for patients with chronic disease, and there are emerging models in Australia (the Co-ordinated Care Diabetes Pilot) and experience in the US with the patient centred medical
home, also known as Accountable Care Organisations, that are introducing blended payments that include a capitation payment and an element of pay for performance. These have existed for some time in the UK for general practitioners who now receive 25% of their earnings through the Quality and Outcomes Framework (QOF) pay for performance scheme.

The reported doubts about the effectiveness of schemes such as pay for performance are concerned with not only the poor methodological design of the studies themselves, but also with the poor design of the payment schemes. Avoiding unintended and undesirable consequences (there may also be some unintended but desirable consequences) can be partly solved through careful design and implementation. For example, payments should be risk-adjusted to avoid the selection of healthy patients to properly compensate providers for high cost patients. Exception reporting, where providers can exclude patients from the denominator of payment calculations, can be avoided by paying only for the numerator, ie a payment per patient hitting a target, rather than for the proportion of patients hitting a target. Schemes should also reward for measured improvements in quality between two time periods, rather than for the achievement of a given level of quality.

**Current challenges in paying health professionals**

The first long-term challenge is to re-orient remuneration schemes to reward for improving the health status of patients and improving access to health care, and to recognise, especially in primary care, the need to appropriately manage the growing burden of chronic disease. Moving away from reliance on fee-for-service with more care needing to be provided outside of hospitals is the biggest political challenge, and the only way this has historically occurred in other countries is to ensure that doctors’ incomes do not fall, and more often than not rise substantially. The challenge for governments is to ensure that such inevitable increases in expenditure are matched by increases in population health and better access to health care. This depends on first producing better measures of organisational and system performance and also deciding on which treatment interventions and behaviours should be incentivised. Current health reform initiatives seeking to produce data on health services performance are step in the right direction.
A second challenge is to evaluate carefully any changes to remuneration levels or different types of remuneration. Opportunities for randomised trials are rare, but they are possible. In the absence of randomisation, it then becomes important to use the vast amounts of administrative data that exist. For example, it would make sense to link hospitals’ personnel records with data on a range of risk-adjusted performance measures (eg mortality rates, adverse events, quality of life). The linkage of data on inputs (and their costs) to outputs and outcomes is fundamental in improving efficiency, health outcomes and access to care. However, data linkage of the characteristics of the health workforce (hours worked, qualifications, experience, pay) to quality of care and costs is still a distant dream in Australia but has been possible in other countries.

A third challenge relates to legal and industrial issues that determine workforce (in)flexibility. Flexibility refers to the ability to quickly changes roles, scopes of practice, training paradigms, pay and conditions, to respond to changes and shifts in demand, such as the growing burden of chronic disease and new technologies. This is fundamental in the private sector, and there are undoubtedly good reasons why the health sector is much less flexible, but these reasons should be revisited and challenged. For example, with the introduction of Local Hospital Networks, it is unclear exactly how autonomous they will be. The inflexibility of pay setting arrangements is one reason that may prevent them from responding to the incentives within Activity-Based Funding. A further example is the many workforce innovation pilots being funded by Health Workforce Australia and State governments. These are dealing with new and expanded roles of staff and new types of staff. The sustainability and roll out of successful pilots depends heavily on there being a supportive and flexible industrial and legal framework in place that should be being re-designed at a national rather than individual pilot level. Patient safety is a key issue in the development of new roles, but one also needs to consider the potential loss of life and high costs caused by inflexibilities in workforce roles and payment systems. Trade-offs exist but are seldom examined.

The establishment of Health Workforce Australia in 2010 gives a more clear policy focus to health workforce issues. Though HWA are partly responsible for paying for some undergraduate clinical training, other issues about pay and remuneration are not currently within their remit but
cut across a number of other State and Federal government departments and a range of other organisations who are responsible for determining the amount and method of health professional remuneration (e.g. the private and not-for-profit sector). The final and most significant challenge is therefore to provide national leadership on reforming the institutional structures that influence the payment and remuneration of health professionals to achieve better health outcomes for the population at lower cost.
References


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