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SCHWERPUNKT

Revolution then evolution: The advance of health economic evaluation in Australia

Nach Revolution Evolution: Die Entwicklung der gesundheitsökonomischen Evaluation in Australien

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Summary All governments face immense challenges in providing affordable healthcare for their citizens, and the diffusion of novel health technologies is a key driver of growth in expenditure for many. Although important methodological and process variations exist around the world, health economic evaluation is increasingly seen as an important tool to support decision-making around the introduction of new health technologies, interventions and programmes in countries of varying stages of economic development. In Australia, the assessment of the comparative cost-effectiveness of new medicines proposed for subsidy under the country's national drug subsidy programme, the Pharmaceutical Benefits Scheme, was introduced in the late 1980s and became mandatory in 1993, making Australia the first country to introduce such a requirement nationally. Since then the use of health economic evaluation has expanded and been applied to support decision-making across a broader range of health technologies, as well as to programmes in public health.

Zusammenfassung Weltweit sehen sich Regierungen damit konfrontiert, ihren Bürgern eine bezahlbare Gesundheitsversorgung sichern zu müssen. Einen Schlüsselfaktor für die Ausgabensteigerung stellen insbesondere neuartige Therapien dar. Auch wenn es zwischen den Ländern Unterschiede in den Methoden und Prozessen gibt, wie man zu Erstattungsentscheidungen kommt, so wird doch die Kosten-Nutzen-Bewertung mehr und mehr als wichtiges Instrument bei der Entscheidungsfindung um neue Therapieformen angesehen. Als Kriterium, ob ein neues Arzneimittel in das *Pharmaceutical Benefits Scheme*, die Liste der zu erstattenden Arzneimittel,

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aufgenommen werden soll, wurde die Kosten-Nutzen-Bewertung gegen Ende der 1980er-Jahre in Australien eingeführt. 1993 wurde sie verpflichtend. Damit ist Australien das erste Land, das eine solche Anforderung auf nationaler Ebene eingeführt hat. Seitdem wurde die Nutzung von Kosten-Nutzen-Bewertungen auch auf Entscheidungen zu nichtmedikamentösen Gesundheitstechnologien und auch auf Public-Health-Interventionen ausgeweitet.

Introduction

All governments face immense challenges in providing affordable healthcare for their citizens, and the diffusion of novel health technologies is a key driver of expenditure growth for many. While perspectives on the definition of innovation vary, most would accept the premise that an innovative health care technology should (aim to) improve survival and health related quality of life, or improve efficiency in the provision of health services. However, irrespective of the extent of innovation offered by a novel technology, its diffusion and uptake will be heavily dependent on funding and delivery arrangements. To be adopted in practice a technology will typically need to be subsidized (or reimbursed) by a third party payer. Third party payer acceptance increasingly requires demonstration that a technology is comparatively safe, effective, and in most industrialized countries, cost-effective - although other factors may ultimately drive uptake. Many jurisdictions now incorporate formal health economic evaluation processes into their decision-making.

Australia has had a long history of collective funding of health care, with the establishment of the Pharmaceutical Benefits Scheme as part of reforms to health insurance post World War II [1]. While other aspects of universal coverage were not introduced until much later, public subsidy for prescription medicines has been part of the Australian health care landscape since 1948, and as such, has had considerable time to develop a framework for evaluating applications for reimbursement [1]. Since 1993 this has incorporated a formal legislated requirement for consideration of comparative cost-effectiveness, making Australia the first country internationally to introduce a formal process of health economic evaluation as a prerequisite for public subsidy of medicines [2].

Health economic evaluation in Australia - background and context

To understand the role and extent of the application of heath economic evaluation in Australia it is useful to first describe the context in which it has evolved. Australia, a federation of six states and two territories, with a population of 23 million, has a notional single payer system (i.e. a single payer system in its operation and ethos, but in reality a single insurer with multiple payers) with a public, income tax-funded program called Medicare at its heart [1].

Medicare provides universal access to subsidized medical and pharmaceutical services through the federal Medicare Benefits Scheme (MBS) and Pharmaceutical Benefits Scheme (PBS), and free treatment in public hospitals, which are operated by state and territory governments, albeit with substantial funding contributed by the Commonwealth (federal) government. Medicare is complemented by optional private health insurance that provides a 'wraparound', covering, for example, treatment as a private patient in a public or private hospital, as well as services not currently covered by Medicare such as dental, optical and allied health. [3]

Like most OECD countries, health spending in Australia has increased over the past decade at a faster rate than spending on all goods and services [4], but at 9.4% of GDP in 2009-10 expenditure is just under the OECD average, and compares favourably with the United States. Of a total expenditure of $121.4 billion (AUD 5,479 per person) in 2009-10, the federal Government contributed 44%; state, territory and local governments 26%; and individuals' out-of-pocket payments made up the remaining 30%. [3]

Health economics as a discipline has a surprisingly long history in Australia, with analyses of health financing data by Deeble (1967) and Scotton (1967) being highly influential in shaping the architecture of Medicare. [5,6] Health economic evaluation (HEE) to inform resource allocation came somewhat later, but the foundations were laid during the 1980s with detailed studies commissioned by government of a range of technologies and programs including breast and cervical cancer screening.[7] Its systematic use in Australia emerged in the late 1980s with the introduction of pharmacoeconomic methods for the evaluation of medicines for listing on the PBS. Since then the application of HEE has expanded to encompass a range of processes and mechanisms that use scientific evidence to assess the cost-effectiveness of health services and technologies. It is applied to medicines and vaccines, diagnostic tests, medical devices, surgically implanted prostheses, medical procedures and public health interventions. The use of HEE in Australia is critical to decision-making intended to ensure that Australians have timely, equitable and affordable access to cost-effective health technologies, and to maximize beneficial health outcomes for the Australian population within the overall funds available.

Unlike the UK which has a dedicated agency in the National Institute for Health and Care Excellence (NICE), the Australian Government currently has three expert advisory committees providing advice on whether various health technologies should receive government subsidies: the Pharmaceutical Benefits Advisory Committee (PBAC) for medicine and vaccines to be funded under the Pharmaceutical Benefits Scheme (PBS) and National Immunisation Program (NIP) respectively; the Medical Services Advisory Committee (MSAC) for medical services involving new procedures or health technologies to be funded under the Medicare Benefits Schedule (MBS); and the Prostheses List Advisory Committee (PLAC) for prostheses and implantable