McMaster University | HEALTH FORUM

Rapid Evidence Profile #51

Impacts of for-profit delivery of health programs, services and products on equity-centred quadruple-aims metrics

31 May 2023

Appendix 1: Methodological details

We use a standard protocol for preparing rapid evidence profiles (REP) to ensure that our approach to identifying research evidence is as systematic and transparent as possible in the time we were given to prepare the profile.

Identifying research evidence

For this REP, we searched Health Systems Evidence and PubMed for:
1) evidence syntheses
2) protocols for evidence syntheses that are underway.

We searched Health Systems Evidence using an open search for the term 'profit'. We also searched PubMed for (for-profit OR for profit) AND delivery AND health. We combined this search with a filter for the past 10 years. Links provide access to the full search strategy.

Each source for these documents is assigned to one team member who conducts hand searches (when a source contains a smaller number of documents) or keyword searches to identify potentially relevant documents. A final inclusion assessment is performed both by the person who did the initial screening and the lead author of the rapid evidence profile, with disagreements resolved by consensus or with the input of a third reviewer on the team. The team uses a dedicated virtual channel to discuss and iteratively refine inclusion/exclusion criteria throughout the process, which provides a running list of considerations that all members can consult during the first stages of assessment.

During this process we include published, pre-print and grey literature. We do not exclude documents based on the language of a document. However, we are not able to extract key findings from documents that are written in languages other than Chinese, English, French or Spanish. We provide any documents that do not have content available in these languages in an appendix containing documents excluded at the final stages of reviewing. We excluded documents that did not directly address the research questions and the relevant organizing framework.

Assessing relevance and quality of evidence

Two reviewers independently appraised the quality of the guidelines we identified as being highly relevant using AGREE II. We used three domains in the tool (stakeholder involvement, rigour of development and editorial independence) and classified guidelines as high quality if they were scored as 60% or higher across each of these domains.

Two reviewers independently appraise the methodological quality of evidence syntheses that are deemed to be highly relevant. Disagreements are resolved by consensus with a third reviewer if needed. AMSTAR rates overall methodological quality on a scale of 0 to 11, where 11/11 represents an evidence synthesis of the highest quality. High-quality evidence syntheses are those with scores of eight or higher out of a possible 11, medium-quality evidence syntheses are those with scores between four and seven, and low-quality evidence syntheses are those with scores less than four. It is important to note that the AMSTAR tool was developed to assess evidence syntheses focused on clinical interventions, so not all criteria apply to those pertaining to health-system arrangements or to

economic and social responses. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, an evidence synthesis that scores 8/8 is generally of comparable quality to another scoring 11/11; both ratings are considered 'high scores.' A high score signals that readers of the evidence synthesis can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the evidence synthesis should be discarded, merely that less confidence can be placed in its findings and that the evidence synthesis needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1):S8.

Preparing the profile

Each included document is hyperlinked to its original source to facilitate easy retrieval. For all included guidelines, systematic reviews, rapid reviews and single studies (when included), we prepare a small number of bullet points that provide a brief summary of the key findings, which are used to summarize key messages in the text. Protocols and titles/questions have their titles hyperlinked, given that findings are not yet available. For this profile, we only prepared bulleted summaries of key findings for documents deemed to be of high relevance. For those classified as medium or low relevance, we list the title with a link to the primary source for easy retrieval if needed. We then draft a brief summary that highlights the total number of different types of highly relevant documents identified (organized by document), as well as their key findings, date of last search (or date last updated or published), and methodological quality.

Appendix 2: Key findings from evidence documents, organized by document type, and sorted by relevance to the question of scale-up and spread of health-system innovations

Citation	Hyperlinked declarative title	Focus (from Table 1, column 1)	Metrics (from Table 1, col 2-5)	Equity examined (PROGRESS Plus)	Quality (AMSTAR score)	Recency (date of search)	Countries where included studies were conducted

(1)	Hemodialysis in private for-profit centres is associated with a higher risk of mortality than care in private not-for-profit centres	• Sectors
		  ○ Specialty care
		• Treatments
		  ○ Other treatments
		• Quadruple-aim outcomes
		  ○ Health outcomes
			• Health outcomes
			  ○ Mortality
				None	9/10	2002	U.S. (7)

(2)	Not-for-profit long-term-care homes were found to provide better quality of care across a number of measures, including staffing ratios, prevalence of pressure ulcers, and use of physical restraints	• Sectors
		  ○ Long-term care
		• Quadruple-aim outcomes
		  ○ Health outcomes
		  ○ Care experience
			• Health outcomes
			  ○ Mortality
			• Care experiences
			  ○ Pressure ulcer prevalence
			  ○ Urethral catheterization prevalence
			  ○ Use of psychoactive drugs
			  ○ Physical restraint –
			  ○ Staffing ratios
				None	10/11	2006	Australia (1)
							Canada (5)
							Taiwan (1)
							U.S. (75)

(3)	Private for-profit hospitals were associated with higher payments for care and higher risk-adjusted mortality compared to private not-for-profit hospitals	• Sector
		  ○ Specialty care
		• Quadruple-aim outcomes
		  ○ Per-capita costs
			• Per-capita costs
			  ○ Health-system costs
				None	8/11	2022	U.S. (13)

(4)	Private for-profit hospitals compared to private not-for-profit hospitals resulted in a higher risk of death for patients	• Sector
		  ○ Specialty care
		• Quadruple-aim outcomes
		  ○ Health outcomes
			• Health outcomes
			  ○ Mortality
				None	8/11	2022	U.S. (13)

(5)	There is limited, outdated research on the performance differences between for-profit and non-profit home healthcare providers, including health outcomes, charity care provision, and cost-efficiency, which fails to provide clear conclusions	• Sectors
		  ○ Home and community care
		• Quadruple-aim outcomes
		  ○ Care experiences
			• Health outcomes
			  ○ Morbidity
			• Care Experiences
			  ○ Cost of care
				None	1/9	Published in 2001	Not reported

(6)	American non-profit hospitals consistently outperform for-profit hospitals in terms of care quality and charity-care provision	• Sectors
		  ○ Specialty care
		• Quadruple-aim outcomes
		  ○ Care experiences
		  ○ Per-capita costs
			• Care experiences
			  ○ Quality of care
			  ○ Adverse events
			• Per-capita costs
			  ○ Costs spent on direct patient care
				None	2/9	Published in 2003	Not reported

(7)	For-profit nursing homes show lower care quality, worse employee and client well-being, and potential cost implications compared to non-profit nursing homes, requiring further investigation and caution in generalizing findings	• Sectors
		  ○ Long-term care
		• Quadruple-aim outcomes
		  ○ Care experience
		  ○ Provider experience
			• Care experience
			  ○ Quality of care
			  ○ Patient satisfaction
			• Provider experience
			  ○ Provider well-being
				None	6/9	Last searched in 2015	U.S.

(8)	For-profit nursing homes in North America provide lower quality of care, including problems like improper restraints, higher infection risk, and more pressure ulcers, compared to non-profit nursing homes	• Sectors
		  ○ Long-term care
		• Quadruple-aim outcomes
			Health Outcomes:
			• Care experience
			  ○ Quality of care
			  ○ Staff-skill mix
			• Provider experience
			  ○ Staff turnover
				None	3/10	Last searched in 2002	Not reported

(9)	For-profit psychiatric providers have equal or inferior performance than non-profit providers in terms of access, quality, cost-efficiency, and amount of charity care	• Sectors
		  ○ Specialty care
		• Conditions
		  ○ Mental health and addictions
		• Quadruple-aim metrics examined
		  ○ Care experiences
		  ○ Provider experiences
			• Care experiences
			  ○ Access to care
			  ○ Quality of care
			• Per-capita costs
			  ○ Cost-efficiency
				None	1/9	Published 2003	U.S. (17)

(10)	For-profit providers have been catching up to non-profit providers in terms of access, but continue to demonstrate equal or less quality, cost-efficiency, and amount of charity care	• Sectors
		  ○ Home and community care
		  ○ Specialty care
		  ○ Long-term care
		• Quadruple-aim metrics examined
		  ○ Care experiences
		  ○ Per-capita costs
			• Care experiences
			  ○ Quality of care
			  ○ Access to care
			• Per-capita costs
			  ○ Efficiency
				None	2/9	Published 2003	U.S. (149)

(11)	Private for-profit providers are inferior to private non-profit providers, but only on specific	• Sectors
		  ○ Speciality care
			• Health outcomes
			  ○ Mortality
				None	Not applicable	2013	Not reported

	metrics, with most findings being inconclusive	• Treatments
		  ○ Prescription drugs
		• Quadruple-aim outcomes
		  ○ Health outcomes
		  ○ Per capita costs
			• Per capita costs
			  ○ Payments for care				

(12)	U.S. for-profit, not-for-profit, and government-owned general acute hospitals are all associated with similar costs, but for-profit hospitals generate moderately more revenue and profits than not-for-profit	• Sectors
		  ○ Specialty care
		• Quadruple-aim outcomes
		  ○ Per-capita costs
			• Per-capita costs
			  ○ Hospital costs
			  ○ Revenue
				None	7/11	2005	United States (47)

(13)	For-profit healthcare facilities and those with poorer staff-to-patient ratios have higher rates of patient transfers to hospitals compared to not-for-profit organizations and those with better staffing, highlighting the importance of considering ownership-type and staffing levels when formulating healthcare policies	• Sectors
		  ○ Long-term care
		• Quadruple-aim outcomes
		  ○ Health outcomes
			• Health outcomes
			  ○ Hospitalization
				None	7/10	2014	Australia (9)
							Canada (8)
							France (1)
							Hong Kong(3)
							Ireland (1)
							Netherlands (1)
							Norway (3)
							Singapore (1)
							Sweden (1)
							Taiwan (4) U.K. (2)
							U.S. (42)
							Vietnam (2)

(14)	There is a higher likelihood of cesarean sections being performed by for-profit hospitals compared to non-profit hospitals, regardless of women's risk and contextual factors, highlighting the need to examine the incentive structures of for-profit hospitals in order to develop strategies that promote appropriate provision of cesarean sections	• Sectors
		  ○ Long-term care
		• Quadruple-aim outcomes
		  ○ Health outcomes
			• Health outcomes
			  ○ Caesarean sections
				None	6/11	2016	Australia (1)
							Brazil (4)
							France (4)
							Greece (1)
							Mexico (1)
							Taiwan (1)
							U.S. (5)

(15)	Further robust research is required to determine the effects of home ownership (for-profit versus not-for-profit) on fluid	• Sectors
		  ○ Long term care
		• Quadruple aim
		  ○ Health outcomes
			• Health outcomes
			  ○ Hospital admissions
				None	7/10	2013	Canada
							Germany
							Japan
							U.K.
							U.S.

	intake and hydration status among older-care home residents						Taiwan

(16)	Although limited data is available in terms of health outcomes, experiences, and costs, the review suggests a more efficient allocation of services, alongside the possibility of worse health outcomes among the chronically ill, enrolee satisfaction limited to financial aspects, and access problems to specialist care with the introduction of managed care organizations in the private sector	• Sectors
		  ○ Primary care
		• Conditions
		  ○ Other conditions
		• Quadruple aim
		  ○ Health outcomes
		  ○ Care experiences
		  ○ Provider experiences
		  ○ Per-capita costs
			• Health outcomes
			  ○ Morbidity
			• Care experiences:
			  ○ Staffing ratios
				None	Not applicable	1995	Not reported

Appendix 3: Documents excluded at the final stages of reviewing

Document type	Hyperlinked title
Evidence syntheses	Can working with the private for-profit sector improve utilization of quality health services by the poor? A systematic review of the literature

Waddell K, Wilson MG, Ali A, Demaio P, Soueidan S, Lavis JN. Rapid evidence profile #51: Impacts of for-profit delivery of health programs, services and on equity-centred quadruple aim metrics, 31 May 2023.

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