Table 1: Programme theories underlying how PROMs data feedback will lead to improvements in patient care

Programme theory	Intended mechanisms & outcomes	Unintended mechanisms & outcomes	Contextual factors
Supporting patient choice: PROMs and performance data can be used to support patient choice of providers[1-5]	Patients will use PROMs data to choose higher performing providers and avoid poorer performing providers [3]. Poorer providers will either exit the market or feel threatened by the potential loss of market share and so take steps to improve patient care[6]	Providers will refuse to treat sicker patients in order to avoid worse outcomes [7-9] Poorer performing providers exiting the market will reduce local provision and high performing hospitals may in turn be unable to manage demand for their services. [10] Patients will not be aware of or able to access or understand the data, will not trust these data and so will not use these data to inform decisions [5, 11, 12] Media coverage may mis-represent or obfuscate provider performance [13, 14]	Complexity of data [13] How data are presented [5, 15] Number of providers within the local health economy [16, 17] Patient characteristics [10] Local demand for services [16]
Accountability: PROMs data will enable stakeholders to hold providers to account for the quality of care provided [1, 2, 18, 19]	Regulators/commissioners impose sanctions on poor performing providers (e.g. shifting contracts, public labelling as a poor performer or increased surveillance and reporting). Providers will feel threatened by the potential or actual sanctions and take steps to improve patient care [13, 14, 17, 20].	'Tunnel vision' or 'effort substitution' where providers focus on improving what is measured to the exclusion of other important areas of care [3, 21, 22] Gaming to give the appearance of improved performance but without any real change in the underlying performance[21, 23] Providers may be misclassified as a poor performer[13]	Organisational vs individual level data [14] Level of support for indicators and fit with organisational goals [17] Power relationships/degree of dependency between providers and commissioners/regulators [13, 14, 17] Use of financial incentives and sanctions [13]
Provider benchmarking: PROMs data will enable providers to compare their own performance with those of peers[1, 2]	Providers' professional ethos mean they are intrinsically motivated to maintain good patient care and will take steps to improve if feedback highlights a gap between their performance and expected standards[3, 6, 24-26] Providers wish to protect their professional or institutional reputation which may have been damaged by being labelled a poor performer and so they take steps to improve care[6, 13] Providers are competitive and take steps to improve patient care because they wish to be as good as or better than their peers[27, 28] Providers identify high performing peers and seek to learn from their practices in order to improve care[28-31]	Providers don't understand data [32] Providers distrust, dismiss and ignore data [13, 14, 33]	Private vs public feedback of data [7] Adequacy of case-mix adjustment [32, 34] Degree of clinician involvement in development of measurement and feedback system [5, 7, 35] Timeliness of data [33, 36] How data are presented [7, 37, 38] Skills/resources for data analysis [36] Process vs outcome data [39, 40] Level of aggregation [41]

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