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Commissioned Research Report

Health Equity and Ontario's Health Based Allocation Model

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Introduction

The Ontario Ministry of Health and Long Term Care is developing the Health Based Allocation Model (HBAM) to fund the province's new Local Health Integration Networks (LHINs). HBAM may resolve some equity problems but it will create new ones as well. Health equity advocates should closely follow its further development and implementation to ensure its deficiencies are mitigated.

Background

Historically, Ontario provided pubic funding to different health care providers according to sector-specific rules, e.g. global budgets for hospitals, OHIP fee for service payments to doctors, per diem rates for long term care, etc. In the last two decades, some Canadian provinces and a number of other countries have developed regional models for health care governance and population-based formulae for funding them.

Alberta and British Columbia use population-based funding for their health regions adjusted for age and sex and socio-economic status. Quebec uses a "deprivation index" composed of 6 socio economic variables to adjust the population based funding for their regions. England uses socio economic indices to adjust its age/sex factored capitation payments to its Primary Care Trusts (PCTs). The NHS uses different health status and socio economic factors for calculating the different components (e.g. acute and maternity, mental health, etc.) of the PCT capitation formulae.

The Ontario Ministry of Health and Long Term Care has been developing the Health Based Allocation Model (HBAM) to fund the province's new Local Health Integration Networks (LHINs). The province aims to implement HBAM in a phased manner according to its different envelopes of spending, e.g. acute care, long term care, etc.

How HBAM Works

HBAM is applied to specific sectors, e.g. acute care, long term care to calculate sector specific funding allocations. These are then totalled for the LHIN allocation. Using the hospital sector as an example, the first step is to identify each LHIN resident and their hospital utilization data for the previous three years. If the person has been admitted to hospital at least once during that time, they are assigned to a clinical group on the basis of their highest severity of illness – RIW or Resource Intensity Weighting category. Then the RIW is adjusted for rurality of service

provider and the income quintile of the dissemination area[1]. Income quintile is the only socio economic status indicator used in the Ontario formula. If there is no hospital utilization by that individual during the previous three years, the person is assigned to another category to provide some recognition that services did need to be available to them even if they didn't use them. This process is repeated for every LHIN resident and then the figures are summed to create the Ministry allocation for a LHIN's acute care funding. Finally, the Ministry will sum the separate sectors' funding allocation to create the LHIN budget. The Ministry has so far developed the formulae for hospital and CCAC funding.

HBAM and equity

Funding systems can be roughly categorized into two types, utilization based and needs based. As their names imply, needs based models are based on some notion of need, generally some combination of population, health status, and socio economic factors. Utilization based funding is built upon historic use of services. HBAM is fundamentally a utilization based model because it is mainly constructed from the previous three years of utilization by individual LHIN residents summed over the LHIN. Unfortunately, utilization based formulae under compensate for unmet need. There are significant variations between different parts of Ontario for utilization of a variety of services, including angioplasty and radiation therapy. If HBAM funds mainly on the basis of current utilization it will not provide resources to deal with unmet needs.

Furthermore, linking funding with utilization risks perpetuating inappropriate utilization patterns. For example, there is great potential in Ontario to better manage diabetes in primary health care, reduce complications such as heart attack and kidney failure, and reduce acute care and long term care institutional costs. However, if a LHIN developed such programs, this might well reduce their overall HBAM allocation because of decreased utilization of hospitals and long term care facilities.

A recent University of Manitoba paper reviewing regional funding models concluded that the reliance on historical utilization data to calculate regional funding allocations, "…introduces a perverse incentive to maintain high levels of utilization, regardless of the need for services."

HBAM does not include other socio economic indicators besides income quintile of the resident's dissemination area. Other factors used in other jurisdictions include education,

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[1] According to Statistics Canada, "A dissemination area (DA) is a small, relatively stable geographic unit composed of one or more adjacent dissemination blocks. It is the smallest standard geographic area for which all census data are disseminated. DAs cover all the territory of Canada. Canada.http://www.statcan.ca/english/research/92F0138MIE/2007001/glossary.htm

There were 19,177 dissemination areas In Ontario in the 2006 census. http://geodepot.statcan.ca/Diss2006/Reference/Freepub/92-145-GIE2006001.pdf

income, proportion of the population living alone, social assistance rates, housing adequacy, proportion of adults who have not graduated from high school, unemployment rates, proportion of adults separated, widowed, or divorced, children under 5 years, retired persons living alone, recent immigrants, and the proportion of single parent families.

However, there is a strong correlation between different social determinants of health, e.g. income, housing, gender, race, time of residence in Canada, etc. By just using income quintile, the Ministry of Health and Long Term Care may have adjusted for a lot of these other determinants of health as well. A key factor in these models is the population of the community from which socio economic indicators are drawn. The smaller the community, the greater the homogeneity of the area, the higher correlations between socio economic disparities and health, and the more consistent funding over time. The average population of an Ontario dissemination area is 670 which might well be small enough to showcase local community inequality.

It is not immediately clear how well income quintile used in HBAM would correlate with recency of immigration, and non-English speaking which have important cost implications for the delivery of high quality health care services to these populations.

Other implications of HBAM

The province's HBAM does not yet have components for community health centre (CHC) funding. Funding for CHCs has to be approached with different methods because no LHINs have complete networks of CHCs and some have very few centres.

The HBAM model could theoretically lead to a destabilization of specialty services. If local communities attempted to repatriate patients receiving certain specialty services outside of the LHIN, e.g. general pediatric services, this could lead to destabilizing funding for centres for specialty services, e.g. children's hospitals.

Conclusion

The Ontario Ministry of Health and Long Term Care is developing the Health Based Allocation Model (HBAM) to fund the province's new Local Health Integration Networks (LHINs). HBAM relies upon historical service utilization to create the funding formula. This formula alone would provide inadequate resources to deal with unmet need. Furthermore, utilization based formulae provide perverse incentives for LHINs to maintain inappropriate institutional utilization.

HBAM includes only one socio economic indicator, income quintile of dissemination area of LHIN residents. This may not provide adequate adjustment for other key socio economic factors. In particular, it is unlikely to provide adequate adjustment for the extra costs associated with providing services to those from non-western cultures and who are do not speak English. .

HBAM's development likely has gone so far that it cannot be fundamentally changed. It seems very unlikely to get this government at this point to re-consider its utilization based approach. However, health equity advocates could work on ensuring some compensation for unmet needs and the extra costs of servicing diverse populations.

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