




BMJ Open Community mental health funding, stakeholder engagement and outcomes: a realist synthesis

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ABSTRACT

Mental health services continues to be a high priority for healthcare and social service systems. Funding structures within community mental health settings have shown to impact service providers' behaviour and practices. Additionally, stakeholder engagement is suggested as an important mechanism to achieving the intended goals. However, the literature on community mental health funding reform and associated outcomes is inconsistent and there are no consistent best practices for stakeholder engagement in such efforts.

Objectives This study sought to understand how stakeholder engagement impacts outcomes when there is a change in public funding within community mental health settings.

Design A realist synthesis approach was used to address the research question to fully understand the role of stakeholder engagement as a mechanism in achieving outcomes (system and service user) in the context of community mental health service reform. An iterative process was used to identify programme theories and context–mechanism–outcome configurations within the literature.

Results Findings highlight that in the absence of stakeholder engagement, funding changes may lead to negative outcomes. When stakeholders were engaged in some form, funding changes were more often associated with positive outcomes. Stakeholder engagement is multifaceted and requires considerable time and investment to support achieving intended outcomes when funding changes are implemented.

Conclusions To support successful transformation of community mental health programmes, it is important that stakeholders are meaningfully engaged during funding allocation changes. Stakeholder engagement may entail connecting around a shared purpose, individual participation and meaningful interactions and dialogue.

INTRODUCTION

Addressing mental health needs remains a significant priority in today's health and social care systems. Over many decades, countries in the developed world have focused on transitioning mental healthcare to the community, in the hopes of both reducing expensive hospital based care and improving the quality of life for users of mental health services.^{1–3}

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This study used a highly iterative process, guided by literature review, author reflection and stakeholder consultation, to develop and test the theory that stakeholder engagement is an important mechanism that can positively influence outcomes within community mental health settings, when changes are made to funding.
- ⇒ An established conceptual stakeholder engagement framework, grounded in evidence, was used to draw out components of engagement from the literature.
- ⇒ These findings should be viewed with some level of caution as the engagement components presented in the literature may have been overstated or understated given the availability of evidence on this mechanism in published research, and authors of included articles may have had different interpretations of engagement.

Subsequently, there has been an increasing shift in funding of community mental health services.⁴ Existing literature on community mental health funding underscores a variety of funding approaches, including pay by results, activity-based funding, managed care, fee-for-service, carve out or capitated funding models, to name a few.⁵ The problem for researchers is that mental health funding has been inconsistently defined, operationalised and evaluated.⁶

In practice, funders of community mental health services are interested in creating efficient funding approaches.³ Within public funding formulas, and impacted by the presence of competing political agendas, it is not uncommon for funders to shift or make changes to funding approaches.⁷ Changes in the funding amount, reallocation from a different funding stream or changes to a funding model are common 'change in funding' approaches observed in practice. Little is understood about how these shifts impact service delivery, organisational structures and service outcomes.⁸ A better

understanding of how mental health funding changes impact desired outcomes can inform the planning and management of health services.^{8 9} In general, the link between funding approaches and outcomes has been poorly described in the literature.¹⁰ This is true of both service user outcomes as well as system-level outcomes.

The objective of this research was to explore the unique relationship between change in funding and outcomes within community mental health settings. Given the present state of the evidence, and variations in funding approaches and outcomes reporting, a meta-analysis approach was deemed unproductive. However, a realist synthesis was identified as an ideal method to explore the linkages between change in funding, influential mechanisms and outcomes within community mental health settings.

METHODS

A realist synthesis is used when a researcher seeks to understand ‘what works, how, in what circumstances and to what extent?’,¹¹ and is considered an ideal evaluation for community programmes that tend to have variable outcomes.¹² The process of completing a realist synthesis is about drawing out context–mechanisms–outcomes (CMO) relationships from existing literature and synthesising the results into CMO configurations that present causal relationships.¹³ The unique feature of a realist synthesis, compared with other knowledge syntheses, is the consideration of mechanisms. Mechanisms are often ‘hidden’ features¹³ but can produce outcomes when influenced by variations in context.¹⁴

A realist approach is grounded in realism and supports an approach to ‘untangling the complexity of real-life implementation’¹⁵ of programmes. The methodological guidelines for theory-driven realist synthesis studies, RAMESES protocol,¹⁶ and the Key Steps in Realist Review,¹¹ were used to guide the approach in this study. Specifically, these steps are: step 1—clarify the scope, step 2—search for evidence, step 3—appraise primary studies and extract data, step 4—synthesise evidence and draw conclusions and step—disseminate, implement and evaluate.¹¹

Step 1: clarify the scope

Through an initial search of key literature, an iterative process was used to clarify the research question, relevant constructs and theories to be tested. The context of interest was change in public funding within community mental health settings. Public funding models were chosen, as it is most relevant to community mental health settings and permitted a focused exploration.

A realist synthesis methodology was embraced due to the high variable and low consistency in how outcomes are measured and reported in practice and research.¹⁷ Such variation on measurement and reporting led to a wide view of outcomes, including system level, service delivery or service user health and well-being outcomes. Specifically, we approached this synthesis with the view that potential outcomes of interest could include service

access improvements, service delivery model enhancements, system cost efficiencies, health or well-being service user outcomes or service user satisfaction scores.

Mechanism: stakeholder engagement

The community mental health literature highlights that funding can influence community mental health service provider practices, and that this subsequently can influence outcomes.^{8 18} For example, researchers have reported that when new funding approaches support innovative service delivery models, service providers take steps to create ‘whatever it takes’ partnerships,¹⁹ ‘wrap around’ service planning²⁰ or cost-effective treatment approaches.²¹ Conversely, the literature suggests that changes in funding can have negative effects when stakeholders do not feel committed to the model proposed or engaged in the change process. For example, when organisations perceive that funding is insufficient for the needs of service users, this can create programme instability and limited collaboration with other service agencies²² or lead to hiring less qualified staff.²³ These findings led us to appreciate that stakeholder engagement may be a mechanism of interest. Specifically, understanding how changes in community mental health funding with and without stakeholder engagement can impact outcomes seemed a worthy line of inquiry. Other mechanisms that were considered included organisational training, culture and leadership, however, stakeholder engagement arose as the most promising mechanism for this realist review.

The concept of stakeholder engagement has been of increasing interest among researchers, funders and policy makers, as successful system transformation and improved financial performance have been demonstrated when healthcare professionals are engaged.^{24 25} Despite the growing interest in and perceived importance of stakeholder engagement, there is currently no single widely accepted definition of engagement or agreed on engagement process.

Norris *et al* sought to conceptualise stakeholder engagement in the context of healthcare improvement initiatives. Specifically, the researchers interviewed a variety of stakeholders and arrived at a conceptual model of engagement highlighting three major components: individual participation, connecting around a purpose and meaningful interactions and dialogue.²⁴ Within each of these components, there are strategies that further inform and describe stakeholder engagement. Norris’ model presents an interesting foundation on which to examine how the mechanism of stakeholder engagement impacts outcomes during funding allocation changes in community mental health settings. This conceptual model formulated the theoretical backdrop for creation of research question and middle range theory, as well as the structure for data collection and analyses. Further details of how this model was applied can be found in results.

Research question

With context, mechanism and outcomes defined, and an associated guiding conceptual framework identified, clarity for the research question arose. Specifically, this

realist literature synthesis sought to address ‘How does stakeholder engagement impact outcomes when there is a change in public funding within community mental health settings?’

Middle-range theory

Jagosh *et al* defined the term middle-range theory as ‘an implicit or explicit explanatory theory that can be used to assess programmes or interventions’.²⁶ An iterative process was used to formulate the middle-range theory. Specifically, this involved preliminary review of the literature, reviewing the conceptual model of engagement, considering the definitions of the context, mechanisms and outcomes, dialogue with other researchers who specialise in realist synthesis reviews and consultation with community mental health agency leaders to determine the appropriateness of the topic and focus.

Through this exploration and clarification, the theory for validation in this study emerged as changes in funding can lead to successful outcomes when stakeholder engagement is present. Additionally, the reverse theory is that changes in funding without engagement are linked to less successful outcomes.

Step 2: search for evidence

The search strategy, search term development and searching activities were completed with support from a research librarian. Specifically, the initial search terms used a variety of economic and funding terms, mental health and mental illness terms, service provision terms and outcome terms (online supplemental appendix A). An initial list of search terms was created by analysing the MeSH headings that were applied to the literature when clarifying the scope. The PubMed identifier for each article was placed into the Yale MeSH Analyzer. This helped generate a working list of appropriate search terms, which were modified iteratively until it was found that the search terms were targeting the intended articles for consideration.

Patient and public involvement

Additionally, an external stakeholder, who is responsible for managing teams of community mental health service providers and understands the complex link between funding, service provider practices and outcomes was consulted. This individual reviewed the search terms and provided feedback to ensure search terms were inclusive of today’s common practices. No patients were involved in this study.

With the search terms identified, the following databases were searched: MEDLINE, CINAHL, EMBASE and Scopus. Handsearching also occurred if an article was identified within one of the selected articles that was thought to contribute to the CMO considerations.

Step 3: appraise primary studies and extract data

The compiled list of searched articles was downloaded into Covidence.²⁷ Following this, title and abstract screening and full-text screening were conducted by two reviewers to limit reviewer bias. Articles were included

if they focused on community mental health funding changes, were published after 1998 and if they addressed and informed the CMO configurations. Twenty years of publications were thought to support the formulation of a modern day finding. Articles were rejected if they were problem focused only, had insufficient stakeholder considerations (mechanism) or if there was insufficient data for the opinions generated. Discrepancies were discussed until agreement was achieved.

Pawson *et al* shared that the approach to appraising quality in a realist synthesis involves evaluating relevance and rigour. Although traditional evidence synthesis protocols may exclude articles that are deemed as weaker evidence or poorer study designs, a realist approach may include articles if they help inform the CMO configurations. For example, it is not uncommon to include editorials in a realist synthesis of the literature support the consideration of the mechanisms in this context. Specifically, the articles may be viewed as demonstrating a ‘thick’ relationship between the CMO,²⁸ even if the study design is viewed as lower in quality.²⁹ Thick concepts are understood to be characterised as ‘involving intentional and purposive detail which help us to understand those activities,’ while thin concepts are less evaluable and more loosely defined.³⁰ In the realm of realist syntheses, classifying literature as ‘thick’ is seen to include articles that ‘offer greater explanatory insights into the factors shaping implementation processes’ and identifying mechanism and contextual processes,³¹ where ‘thin’ literature is perceived as articles ‘where discerning a programme theory would be problematic’.²⁸

The chosen articles were numbered to create consistency within the data extraction tables. Data from each article were extracted related to the specific change in funding reported (context), the stakeholder engagement process (mechanism) and specific outcomes of the programme. Initial extraction tables captured all relevant data in regards to context, mechanism and outcomes.

Step 4: synthesise evidence and draw conclusions

Once all data were extracted, Pawson *et al*’s approach was used to guide the data synthesis process. Data tables were reviewed by the research team and the findings condensed into preliminary themes. The themes were discussed and analysed to identify chains of inference.¹⁵ The data were then synthesised to test and refine the middle range theory. The conceptual model of stakeholder engagement²⁴ provided the framework for this theory testing. Next, efforts were made to identify data that contradicted the middle range theories or evidence to generate new insights. Lastly, the research team discussed the findings to allow for a presentation of conclusions based on the context, mechanisms and outcome configurations.

Step 5: disseminate, implement and evaluate

The final step in a realist synthesis seeks to test out the conclusions and recommendations with key stakeholders as well as in practice. The same external stakeholder who

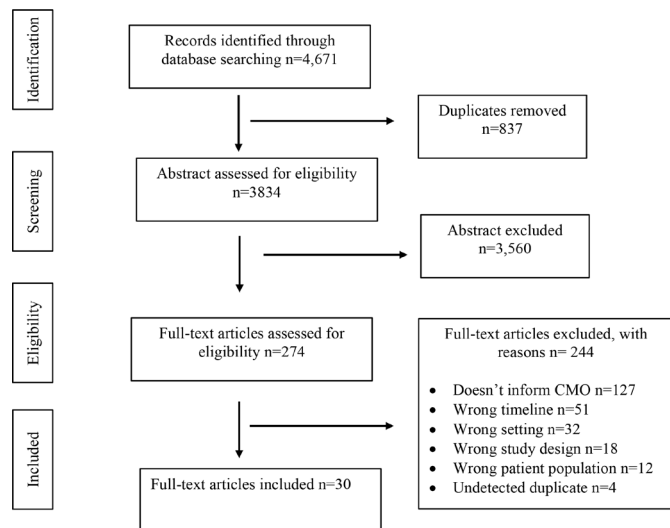


Figure 1 Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow chart. CMO, context-mechanism-outcome.

provided consultation on the search terms was engaged in this discussion.

RESULTS

The search strategy identified an initial N=4671 articles for consideration. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA chart [figure 1](#)) identifies the number of articles that were searched and removed at each step of the search process. Once consensus was reached for article inclusion, N=30 articles remained for data extraction. The articles were from countries around the world: 60% were from the USA (N=18); 17% were from England or other European countries (N=5); 17% were from Canada (N=5); and 7% were from Australia (N=2). Included studies represent a breadth of qualitative and quantitative, editorial, randomised controlled trial (RCT) and case study designs.

With respect to outcomes, online supplemental table 1 provides the details about outcomes and outcome types represented in the articles. Access to care (34%) was the most referenced outcome, and service model development or enhancement (21%) was the second most discussed outcome. Others outcomes reported included quality of care (15%), staff workload (13%), service user outcomes (9%), cost-effectiveness (6%) and collaboration (3%). As some articles mentioned more than one outcome, there are more outcome types reported than articles cited.

Change in funding

All included studies highlighted some form of change in funding, such as an increase in funding, a decrease in funding, a reallocation of funding from one funding stream to another or a change in the funding model (online supplemental table 1). Some studies compared two different funding models when a new funding

amount, model or approach was trialled within the same system. Additionally, some changes occurred within the context of programmatic changes. Three of the articles reported on traditional RCT studies that compared two funding models to determine differences in outcomes. For example, Alterman *et al*³² compared two groups: one with fee for service funding against managed care and capitated funding models.

Stakeholder engagement

The main components within Norris *et al*'s stakeholder engagement conceptual model are individual participation, connecting around a purpose and meaningful Interactions and dialogue. These concepts provided the foundation for data extraction of stakeholder engagement mechanisms. Most included articles commented on some level of stakeholder engagement, however there were a few articles (N=4) describing that stakeholder engagement was lacking. As can be observed in online supplemental table 2, the authors commonly reflected on individual participation and connecting around a purpose and related subthemes, while meaningful interactions and dialogue was the least described mechanism in this literature.

Individual participation

The first broad theme in the concept of stakeholder engagement is individual participation; with subthemes of 'active', 'willing', 'committed' and 'varying levels'.¹⁸ As an illustrative example of individual participation, George *et al* discussed the implementation of Assertive Community Treatment programmes in Ontario, Canada over a 6-year period. While the authors discussed many aspects of engagement, one of the features that they highlighted as key to successful implementation was the establishment of a technical advisory panel that comprised 'team leaders, psychiatrists, peer support workers, family organisations, consumers, the Ontario Office of the Patient Advocate and senior ministry staff'.³³ The inclusion of perspectives from diverse stakeholders ensured engagement through individual participation from individuals at all levels of the system and all stakeholder groups.³³

Connecting around a purpose

The second broad theme in the concept of stakeholder engagement is Connecting Around A Purpose; with sub themes of 'voice at the table', 'interesting and relevant problem' and 'shared vision and decision making'.¹⁸ An example drawn from the literature of 'voice at the table' is when all stakeholders could participate in discussions about how the community mental health system is structured and funded. This construct was therefore viewed at a system wide, structural frame of reference. On the other hand, other elements within this broad theme, such as addressing an 'interesting and relevant problem' and 'shared vision and decision making'¹⁸ were interpreted as relevant to the consideration and development of care pathways and/or service delivery models.

An example of how connecting around an ‘interesting and relevant problem’ was represented within the articles is the implementation of a community of practice (CoP) of service provider stakeholders. One group of authors discussed how a CoP of service providers was formed during the At Home/Chez Soi Housing First research demonstration project in Canada.³⁴ One of the key items that the authors highlighted was that the CoP supported service provider engagement and helped inform front-line service delivery, including the consistent use of best practices within the programme.

Alternatively, another group of researchers discussed how the state of Oregon transitioned to a managed care model for Medicaid-funded substance use treatment.³⁵ The authors emphasised that improved access and quality of care and decreased costs were observed when treatment providers had a ‘voice at the table’ through hosting of ‘regional meetings of treatment providers across the state to provide information about the transition and to allow treatment providers to share their experiences, troubleshoot and share data’.³⁵

Meaningful interaction and dialogue

The third broad theme of Norris *et al*’s conceptual model of stakeholder engagement is Meaningful Interaction and Dialogue, which include the subthemes of ‘two-way contribution’, ‘communication’, ‘an invitation early in the process’, ‘listening and understanding’ and ‘respect and sincerity’.¹⁸ While it is not difficult to understand why these are essential components of successful engagement, this broader construct was less evident in the literature. Mechanisms can often be hidden in the literature,¹³ and meaningful interaction and dialogue was the most difficult to detect within the articles examined. While funders may allow for the creation of processes that ensure all stakeholders have an opportunity to engage in ‘two-way contribution’, it is not discussed or described at great length within the literature. It may be considered implicit, and therefore, authors may not find it necessary to mention or capture sentiments that participants ‘felt heard and considered’. That said, this does appear in the literature in some articles and sometimes quite directly.

For example, one study examined what happened to community mental health services when a federally funded initiative came to an end.³⁶ Specifically, in the USA, a federally funded project called Access to Community Care and Effective Services and Supports (ACCESS) intended to foster partnerships between service providers who supported populations experiencing homelessness, serious mental health and substance use conditions. This funding envelope was established for a period of 5 years and there was concern that these initiatives would discontinue when federal funding ended. However, the researchers found that during the 5-year funding period, significant stakeholder engagement led to collaborative identification of other funding opportunities to support sustainability. The authors discussed that right from the start of the 5-year demonstration project, ACCESS-funded sites were encouraged to ‘develop strategies

to continue ACCESS services with local and/or state monies’, which reflects an ‘invitation early in the process’. The authors discussed the presence of ‘two-way contribution’ and ‘communication’ at multiple points in the article and their findings highlighted that obtaining ‘local buy-in’ was a critical component to ensuring continuation of projects after the completion of federal funding.³⁶ While the authors did not say explicitly that participants felt that ‘sincere and genuine’ communication was occurring, they did discuss that policy makers ‘went to bat for continued funding’ and that programme managers were focused on sharing the successful results of the programme to potential new funders.³⁶

CMO synthesis and configuration

The data extracted were simplified by the stakeholder engagement constructs from the conceptual model to allow for CMO synthesis and configuration. As online supplemental table 2 reflects, and in line with the guiding middle range theory, it appears that when funding changes are made without stakeholder engagement, it can lead to undesirable or negative outcomes. This was represented in 13% (N=4) of the articles. Similarly, when stakeholder engagement of various types was present in the context of a funding change, this supported positive outcomes for 63% (N=19) or mixed outcomes for 23% (N=7) of the articles. What is also clear from this synthesis is that outcomes are rarely directly impacted by the type of funding change being implemented. Regardless of funding increase, decrease or reallocation, the funding change did not appear to be the driving factor impacting outcomes. On the other hand, the synthesis appeared to suggest that when stakeholder engagement was present during a funding change, it more likely supported a positive outcome. These findings endorse the proposed theory in regarding to funding changes, stakeholder engagement and outcomes.

With the middle-range theory supported through this synthesis process, efforts were made to understand if further connections could be drawn that link specific components of engagement to funding changes and outcomes. Specifically, articles with thick relationships between the context, mechanism and outcomes were further considered. Thick concepts are understood to be characterised as ‘involving intentional and purposive detail which help us to understand those activities,’ while thin concepts are less evaluable and more loosely defined.³⁰ Essentially, we understood the thick articles as more strongly addressing our line of inquiry.

As can be seen in online supplemental table 2, while all N=30 articles contributed to the CMO configuration, there are N=14 articles that included thick description of relationships. It was found that N=10 articles had positive and mixed outcomes, and these articles reported high levels of stakeholder engagement with all three components of the conceptual model of engagement present. In the N=4 articles that highlighted lack of stakeholder engagement, authors reported negative outcomes. Based on the synthesis of studies with the thickest description of

CMO relationships, it appears that all the components of engagement need to be present for successful outcomes to be observed. For example, individual participation alone does not reflect sufficient stakeholder engagement, nor is just the presence of meaningful communication.

Further to these findings, the articles with thick CMO relationships highlighted many consistent practical considerations. Training and technical support of service providers was often reported as an essential stakeholder engagement activity.^{33 34 37} When described as a successful engagement strategy, it was rarely spoken of as a single directional engagement between providers and funders, but instead as a mutual approach to building competency, shared vision and supportive communities of practice. In addition a clear understanding of expectations and outcomes by all stakeholders, with flexibility to accommodate individual client needs, was an important component of successful system transformation.^{35 36 38} Furthermore, political support and championing was frequently mentioned as a practical and necessary approach to ensuring continued funding allocation.^{34 36 39}

There are a few other noteworthy themes that arose from the articles, whether categorised as thick or thin in the CMO configurations. The first theme that arose was that change takes a substantial investment. Many authors noted that with changes in funding, meaningful engagement and realising positive outcomes take significant time.^{20 33–35 39–42} This presents a new contextual factor that was not initially theorised, that implementing a change in funding takes significant time, resources and commitment. It was recommended that health and social systems have sound change principles in place to support positive outcomes when changes to funding are implemented.³⁴

Further to this, some authors emphasised that there needs to be varying levels of individual participation. It was noted that engagement cannot be an only top down or bottom up process^{36 43 44} and that stakeholders at all levels are required to see optimal engagement.^{19 41} Two authors commented that engagement needs to extend to service users, highlighting that currently service users are not engaged enough in policy development⁴⁵ and that to truly understand service users' needs and preferences, they need to be involved in discussions about funding and service delivery.⁴⁶

Finally, many authors noted that engagement cannot be siloed among stakeholders from one system alone. When changes to funding and services are made to one system, it can create a 'bottleneck' in other parts of the system, thus decreasing efficiencies and leading to negative results for service users and that system.^{40 42 47} It was further reinforced that bringing together stakeholders from multiple levels and systems takes significant effort, work and time, which further highlights that stakeholder engagement is complex and takes extensive planning and resources to lead to positive system level and service user health and wellness outcomes.

The results of the CMO configurations were shared with the same external stakeholder who provided consultation on the search strategy. This individual stated that while it is recognised that stakeholder engagement is

important, and that many service agencies work closely with the funders when changes are made, in practice there is rarely extra time and resources in the system to support proper stakeholder engagement from front-line service delivery providers and service users.

DISCUSSION

This realist synthesis contributed to the theory that when funding changes are made within community mental health service settings, stakeholder engagement is an important mechanism that may positively influence outcomes. The concept of stakeholder engagement is not new, attracting increasing attention from funders, policy makers, health professionals and researchers in recent years. Although there is no widely agreed on definition or method of stakeholder engagement,²⁴ a growing body of knowledge highlights that stakeholder engagement can influence-system improvement, adoption of evidence-based practices and improved quality of care for service users.⁴⁸ This realist synthesis has highlighted that within community mental health settings, stakeholder engagement is an influential construct, similar to other other healthcare or social services arenas. Funding decision-makers may not automatically or routinely engage stakeholders from the mental health service sector and adjoining systems; however, these findings suggest that implementation of intentional and thoughtful stakeholder engagement may support positive outcomes when a change in funding level or model occurs. Furthermore, stakeholder engagement needs to be multifaceted and include components of individual participation, connecting around a purpose and meaningful interactions and dialogue of multiple stakeholder groups. This emphasises the importance of dedicated funding and resources for training, ensuring clarity of expectations for all stakeholder groups and creating space for all stakeholders to participate in planning as essential activities for ensuring positive outcomes when funding changes occur.

Although this realist synthesis commenced with an initial view that stakeholder groups include service users, the literature on change in funding for community mental health services has been largely silent on evaluations, processes or best practices for including the voice of service users in the planning process for funding changes or funding allocations. Engagement of service user groups and their families are considered constructive collective governance strategies,⁴⁹ however, future research is required as to how to do this in a meaningful way.

While the results of this study show that funding can be decreased and positive outcomes can still be actualised, this theory can only hold to a point. Specifically, negative system level and service user outcomes can result if the funding is decreased so drastically that service providers can no longer provide adequate care²² and already underserved service users go without care.⁵⁰ That is, sufficient funding will always be required to provide care to vulnerable service users of community mental health services.

The conclusions reached from this realist synthesis were formulated from a wide and diverse group of articles. While the chains of inference were detected, caution should be applied when comparing editorials and case studies with RCTs. The final cautious reflection from this realist synthesis is that when we study change in funding within a controlled research study, a heightened level of engagement may naturally occur. This is a necessary step to ensuring rigour within study methods. Four of the articles in this realist synthesis discussed substantial stakeholder engagement to ensure service providers were knowledgeable and trained to provide the interventions in question.^{36 50–52} The present review did not follow programmes from initiation through spread and scale and cannot confirm findings are representative of larger populations or geographies than those included in the original studies.

Mental health reform remains a high priority public health policy issue,³ with many stakeholders advocating for changes to mental health funding models and allocations. The evidence continues to highlight that funding models influence service provider practices, and that stakeholder engagement can influence outcomes when change in funding occurs. While stakeholder engagement is a valuable activity, in practice funding and time to allow for meaningful engagement at all levels can be limited. An important reflection for service planners and funders is to consider adequate funding for stakeholder engagement activities when funding changes are made. Building in processes to allow for stakeholders at all levels to have a ‘voice at the table’, engage in ‘meaningful interactions’ and assist in ‘solving a common problem’ are important tasks to support more successful individual, programme and system-level outcomes.

Strengths and limitations of this study

This realist synthesis embraced a highly iterative process, guided by literature review, author reflection and stakeholder consultation, which is thought to have strengthened the theory development and CMO considerations presented in this paper.

As with all evidence synthesis approaches, slightly different search terms may have identified different articles, which may have changed the final conclusions. While this realist synthesis suggested some important CMO synergies, the findings are completely predicated on pulling data from articles written by authors who have their own biases and may or may not have discussed all stakeholder engagement or other mechanistic components. Furthermore, some stakeholder engagement components may have been over or understated, and the analysis was limited to what information on mechanisms was available within the articles. Additionally, inclusion bias may have favoured articles where funders deemed stakeholder engagement as a higher priority, thus inflating the conclusions.

Lastly, we sought the guidance of a community mental health stakeholder, who could have influenced the search and conclusion. A larger consultation could have

supported different conclusions. Every effort was made to use an iterative and conscientious approach; however, researcher biases about search term creation, article inclusion and exclusion, data extraction and data analysis may have influenced each step of the process.

CONCLUSIONS

This realist synthesis took an international and macro level view of what happens when there is a change to public funding allocation models in community mental health. This study highlights that the mechanism of stakeholder engagement is powerful, and not to be overlooked in the context of funding changes. In the presence of high-quality stakeholder engagement, positive system and service user outcomes can be more likely when funding changes occur.

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Supplementary Table 1 - Included Articles – Authors, Journal, Design, Context, Outcome & Outcome Type

#	Title	Author (s)	Journal	Design	Context	Stakeholders	Outcome	Outcome Type
1	Systems change in the context of an initiative to scale up Housing First in Canada	(Nelson et al., 2019)(1)	Journal of Community Psychology	Qualitative Focus Groups	Increase in funding following the At Home / Chez Soi Research Study. New settings were created, rent subsidies increased and capacity enhanced.	Stakeholders included researchers, service providers and community members.	Increased collaboration and coordination and increase community capacity in the form of inter-sectorial multiagency partnerships. This all led to increased system capacity	collaboration and access
2	Recent changes in medicaid policy and their possible effects on mental health services	(Buck, 2009)(2)	Psychiatric Services	Editorial	Rise in funding from Medicaid, increase in funding restrictions and flexibility controls. Money follows the person demonstrations.	Stakeholder engagement focused on service providers.	Increase in consumer driven care and deinstitutionalization care. Increased consumer employment	quality of care and patient outcomes
3	The role of national policies and mental health care systems in the development of community care and community support: An international analysis	(Van Hoof et al., 2015)(3)	Journal of Mental Health	Qualitative stakeholder interviews	Emergence of new policies for deinstitutionalization and the reallocation of funding to the community. Analyzed three different countries.	Stakeholder engagement with funders, program managers, service providers and service users.	Improvement in recovery focused service delivery. However, no structure for how care should be provided.	service model
4	Funding growth and	(Stuart et al.,	Canadian Journal of Community	Quantitative retrospective	Increased funding of \$19M for	Stakeholders, especially service	No improvements	access

#	Title	Author (s)	Journal	Design	Context	Stakeholders	Outcome	Outcome Type
	service match: Doing more of the same, or doing things better?	2010)(4)	y Mental Health		community mental health services in Southeastern Ontario.	providers, were not well engaged.	to underserved areas	
5	Cost and Outcome of Behavioural Activation (COBRA): a randomised controlled trial of behavioural activation versus cognitive-behavioural therapy for depression.	(Richards et al., 2017)(5)	Health technology assessment	Randomized control design	Decreased funding for cognitive behavioural activation therapies. Funding was reallocated to less expensive behavioural activation services that were offered by more junior staff and over less time.	Stakeholders engaged were front line service providers.	No difference in client outcomes between more expensive CBT and less expensive BA. Less therapy offered by junior staff achieved the same results.	patient outcomes and cost effectiveness
6	Performance-based funding of supported employment for persons with severe mental illness: Vocational rehabilitation and employment staff perspectives	(McGrew et al., 2007)(6)	Journal of Behavioral Health Services and Research	Randomized control trial	A comparison of results-based funding to traditional fee for service funding. Although a comparison, the intervention is of most interest.	The staff from the Supported Employment (SE) were all placed into the study, however the staff from Vocational Rehabilitation (VR) were chosen for evaluation.	The programs with results based funding and vocational rehabilitation had increased time with clients and were able to get them into other services faster.	service model and access

#	Title	Author (s)	Journal	Design	Context	Stakeholders	Outcome	Outcome Type
7	Working overtime in community mental health: Associations with clinician burnout and perceived quality of care	(Luther et al., 2017)(7)	Psychiatric Rehabilitation Journal	Survey with service providers. Parent study was an RCT.	Reduction in funding from US states; coupled with increasing demands	Stakeholders engaged were front line service providers.	Increased levels of staff burnout, however there is not an increase in staff turnover. Staff are reporting that these changes lead to lowered quality of care.	staff workload and quality of care
8	Mental health community-based funding: Ohio's experience in revising its funding allocation methodology	(Seiber et al., 2012)(8)	Community Mental Health Journal	Editorial	Slow change in funding formula that was based on various evidence-based considerations	Author reflected that local boards and community groups were engaged.	Improved access of care for clients. An increased percentage of marginalized and hard to service clients received care	access
9	System-wide implementation of ACT in Ontario: An ongoing improvement effort	(George et al., 2009)(9)	Journal of Behavioral Health Services and Research	Editorial	Increase in funding. Initially only half of the need was funding, but then over time, the funding continued to increase	Stakeholders were engaged through a technical advisory panel, which was made up of team leads, psychiatrists and peer support workers. Program administrators also engaged.	Initially increase in funding did not lead to full caseloads for service providers and team diversity. Corrective action was reported; however, outcomes not reported.	staff workload

#	Title	Author (s)	Journal	Design	Context	Stakeholders	Outcome	Outcome Type
10	What does it take? California county funding requests for recovery-oriented full-service partnerships under the mental health services act	(Felton et al., 2010)(10)	Community Mental Health Journal	Quantitative retrospective	Increase in funding. Funding was doubled over two years. There was also funding reallocation from other systems.	Stakeholder were engaged through full-service partnerships community-based treatment providers from multiple agencies. Also engaged family and consumers in guideline planning. Other partnerships included law enforcement, education, housing and employment agencies.	Improved continuation of care, targeted servicing of underserved populations. These did not lead to an increase in cost of care per client.	service model
11	Does Introducing Public Funding for Allied Health Psychotherapy Lead to Reductions in Private Insurance Claims? Lessons for Canada from the Australian Experience	(Diminic & Bartram, 2019)(11)	Canadian Journal of Psychiatry	Quantitative retrospective	Increase in public funding of psychotherapy services. Study wanted to track if this led to a decrease in private psychotherapy claims.	Stakeholder engagement focused on GPs.	Improved access to care for clients	access

#	Title	Author (s)	Journal	Design	Context	Stakeholders	Outcome	Outcome Type
12	Examining the effects of enhanced funding for specialized community mental health programs on continuity of care	(Dewan et al., 2010)(12)	Canadian Journal of Community Mental Health	Mixed method case study	Increase in funding of approximately \$100 million over two years through a variety of initiatives	Engaged service providers and administrators from court support programs and early intervention programs for psychosis.	Increase in number of clients served. Continuity of care was seen only in the programs that received funding	service model and access
13	Emerging Roles for Peer Providers in Mental Health and Substance Use Disorders	(Chapman et al., 2018)(13)	American Journal of Preventive Medicine	Comparative case study design	Increase in funding to include peer support providers in funding formula. Adapted to a variety of settings. Started as a grant and evolved to Medicaid.	Stakeholders considered were peer support providers.	Increase in number of service providers available to provide care. Increase in recovery-based approach to care.	access and service model
14	Working Well - The Texas Demonstration to Maintain Independence and Employment: 18-month outcomes	(Bohman et al., 2011)(14)	Journal of Vocational Rehabilitation	Randomized control trial	Increased funding for an intervention for working individuals. Intervention group experienced the change in funding model.	Case managers were engaged through extra training and support.	Authors shared mixed results as there was an increase in access to care, however staff were still working long hours.	access and staff workload
15	How would case managers' practice change in a consumer-directed care environment	(You et al., 2017)(15)	Health & social care in the community	Questionnaire Surveys and semi-structured interviews	Sought case managers' opinions of a change to a consumer directed care. No change was occurring but was anticipated. Considered a	An example of poor engagement with service users and service providers.	Service providers not committed to the newly proposed funding model and how it would impact the service delivery model of care	service model

#	Title	Author (s)	Journal	Design	Context	Stakeholders	Outcome	Outcome Type
	ent in Australia ?				funding reallocation.			
16	Evaluating care pathways for community psychiatry in England: a qualitative study.	(Khandaker et al., 2013)(16)	Journal of evaluation in clinical practice	Qualitative stakeholder interviews	Implementation of a care pathway in preparation for a pay by results model of funding.	Stakeholders engaged were senior clinicians and managers.	Increase in workload and increase in multi-assessment. The authors however report that the overall approach is working and having a positive impact on service.	service model and staff workload
17	Lessons from an evaluation of major change in adult mental health services: effects on quality.	(Rathod et al., 2014)(17)	Journal of Mental Health	descriptive evaluation with mixed methods	Funding reallocation of funds from inpatient hospital care to community-based programs	Stakeholders engaged were service providers from Access and Assessment Teams and Community Treatment Teams	Positive outcomes were described as decrease in inpatient length of stay, increase in system and funding efficiency and no change in perceived quality of care. Negative outcomes were described as no change in number of reassessments, increase in staff sick days and increase confusion of roles.	patient outcomes, quality of care, cost effectiveness and staff workload
18	Outcome-based funding for vocational services and employment of people with mental health	(Gates et al., 2005)(18)	Psychiatr Serv	experimental post-test only design	Increase in funding for a new program that had a multi-step intervention with pay for performance compensation linked to each step.	Stakeholders engaged were service providers.	Vocational rehabilitation increased attention on clients who were at risk. Placement appropriateness and retention were reported as positive outcomes.	access and patient outcomes

#	Title	Author (s)	Journal	Design	Context	Stakeholders	Outcome	Outcome Type
	conditions							
19	Successful program maintenance when federal demonstration dollars stop: the ACCESS program for homeless mentally ill persons	(Steadman et al., 2002)(19)	Adm Policy Ment Health	multiple case study design	Federal funding was provided for five years before it was discontinued. Early focus on encouraging the agencies to find new sources of state level funding before the five years was complete.	Stakeholders engaged were policy makers and partnerships between federal, state, local and private service providers.	Seventeen of the eighteen sites were still providing the ACCESS program after the discontinuation of the federal funding. Authors reported staff reduction, higher staff to client ratios, fewer clients served and the eligibility changed.	access, staff workload and service model
20	Directed funding to address under-provision of treatment for substance use disorders: a quantitative study.	(Frakt et al., 2013)(20)	Implementation science	retrospective quantitative	Increase in funding over an eight-year period by \$152M. Monies were targeted to increase substance use staff.	Stakeholders engaged were local service providers.	Targeted use of funding as intended took many years, but the intended outcomes were observed.	service model and access

#	Title	Author (s)	Journal	Design	Context	Stakeholders	Outcome	Outcome Type
21	Oregon's transition to a managed care model for Medicaid-funded substance abuse treatment : steamrolling the glass menagerie.	(D'Am brosio et al., 2003)(21)	Health & Social Work	Qualitative stakeholder interviews	Change in funding model from fee-for-service to managed care.	Stakeholders were service providers from the Office of Alcohol and Drug Abuse Programs and managed care organizations.	Authors shared that the change in funding model "resulted in higher treatment access rates, shorter waiting lists, increased professionalism in the treatment provider community, reductions in costs and a lack of commitment to serving rural areas."	access, quality of care and cost effectiveness
22	Transformation of the California mental health system: stakeholder-driven planning as a transformational activity	(Cashin et al., 2008)(22)	Psychiatr Serv	retrospective qualitative content analysis of CSS plans	Increase in funding overall by ten percent.	Significant stakeholder engagement including funders, policy makers, service providers, law enforcement, education, social services, families and service users.	The planned services were mostly implemented, and the recovery service model was embraced by all stakeholders.	service model
23	Tennessee's failed managed care program for mental health and substance abuse services	(Chang et al., 1998)(23)	JAMA	Qualitative Single Case Study design	Decrease in funding and change in funding model. Amount was decreased to approximately \$10 per service user per month.	Stakeholders engaged were managers and case managers from behavioural health organizations.	Many service agencies went bankrupt, and clients stopped receiving care.	access

#	Title	Author (s)	Journal	Design	Context	Stakeholders	Outcome	Outcome Type
24	Public sector managed care: a comparative evaluation of substance abuse treatment in three counties	(Beattie et al., 2006)(24)	Addiction	Natural experiment comparing one county "experiment" to two others "control"	Change in funding model. Moved to managed care, which was the intervention group. The control groups were two other counties.	Stakeholders engaged were service providers and their managers.	There was no difference in quality of care between control and intervention groups.	quality of care
25	Access to substance abuse treatment services under the Oregon Health Plan	(Deck et al., 2000)(25)	Jama	Analysis of statewide treatment and Medicaid eligibility data using a naturalistic approach	Change in funding model. Implementation of capitated funding for a patient population who is chemically dependent.	The close physical proximity of treatment services to social services programs in rural areas key engagement factor.	Increased access to care.	access
26	Managed care and service capacity development in a public mental health system	(Cohen & Bloom, 2000)(26)	Adm Policy Ment Health	Descriptive and Case Study design. Multiple time points utilized	Change in funding model. Shift from fee-for-service to managed care. Capitated funding and carve out models were both explored.	Stakeholders engaged were service providers.	Increase in service offerings	access
27	What Happens After the Demonstration Phase? The Sustainability of Canada's At Home/chez Soi Housing First Programs for Homeless Persons with	(Nelson et al., 2017)(27)	Am J Community Psychol	Multiple case study qualitative interviews	Decrease in funding for Housing First program. This study followed up with the sites after the end of the study to identify factors contributing to sustainability.	Engagement of organizational service providers and leadership.	Nine of the twelve housing first programs continued after federal funding ended.	Access and service delivery

#	Title	Author (s)	Journal	Design	Context	Stakeholders	Outcome	Outcome Type
	Mental Illness							
28	Capitated assertive community treatment program savings: system implications.	(Chandler & Spicer, 2002)(28)	Administration and policy in mental health	RCT	Change in funding model. Specifically moved to capitated funding model in an effort to reduce costs.	Engagement between funder and the service provider agencies. Not strong engagement.	Substantial cost savings were actualized as was improved quality of care.	cost effectiveness and quality of care
29	Comparison of outcomes by gender and for fee-for-service versus managed care: a study of nine community programs	(Alterman et al., 2000)(29)	J Subst Abuse Treat	Pre-test post-test correlational design.	Change in funding model from fee-for-service to managed care and capitated funding.	Same engagement of service providers in both groups.	No difference in outcomes between the two funding models that had similar engagement. Specifically, no difference between the two groups in terms of services that were delivered or various patient outcomes.	access and patient outcomes
30	Freedom of choice or cost efficiency? The implementation of a free-choice market system in community mental health services in Sweden	(Andersson et al., 2016)(30)	Scandinavian Journal of Disability Research	case study design	Change in funding model with the implementation of free choice market model for clients.	Stakeholders engaged were politicians, service agencies management and staff and service providers.	The hypothesis was that the new funding model would lead to increased competition, and this would lead to increased quality of care. However, the results were that few new players entered the system.	quality of care

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Supplementary Table 2 – Mechanisms and CMO Synthesis

#	Study	Context	Mechanism	Outcome	Strength of CMO
1	Nelson 2019	Funding Increase	Individual Participation (Active, Willing, Various Levels and Committed); Connecting Around a Purpose (A Voice at the table, interesting and relevant problem and Shared vision and decision making); Meaningful Interactions & Dialogue (early in the process, respectful, listens and understands, sincere and genuine, feels heard and considered, 2-way communication)	Positive	Thick
2	Buck 2009	Funding increase	Connecting Around a Purpose (shared decision making for clients). The mechanisms were top-down only and was focus on the "problem." Minimal engagement.	Positive	Thin
3	VanHoof 2015	Funding reallocation	Individual Participation (various levels, active, willing, committed), Connecting Around a Purpose (interesting and relevant problem, shared vision and decision making, a voice at the table). All engagement was bottom-up. Decisions were made at community level.	Mixed	Thin
4	Stuart 2010	Funding Increase	No engagement occurred	Negative	Thick
5	Richards 2017	Funding decrease and reallocation	Individual Participation (Active and Committed); Connecting Around a Purpose (interesting and relevant problem and Shared vision and decision making); Meaningful Interactions & Dialogue (early in the process and 2-way communication). Extensive training provided to the new junior staff.	Positive	Thick
6	McGrew 2007	Funding reallocation	The staff from the Supported Employment (SE) were all placed into the study, however the staff from Vocational Rehabilitation (VR) were chosen for the study. This demonstrates a varying level of Individual Participation (active, committed and willing).	Positive	Thin
7	Luther 2017	Funding decrease	Individual Participation (committed)	Mixed	Thin
8	Seiber 2012	Funding reallocation	Connecting Around a Purpose (interesting and relevant problem and shared vision and decision making); Meaningful Interactions & Dialogue (sincere and genuine, early in the process, listen and understands, 2-way communication, respectful)	Positive	Thin
9	George 2009	Funding Increase	Individual Participation (Active, Willing, Various Levels and Committed); Connecting Around a Purpose (shared vision and decision making); Meaningful Interactions & Dialogue (two-way communication).	Mixed	Thick
10	Felton 2010	Funding increase and reallocation	Individual Participation (active and various levels); Connecting Around a Purpose (interesting and relevant problem and shared vision and decision making); Meaningful Interactions & Dialogue (2-way communication). The funding supported full-service partnerships. Other aspects of engagement may have been present, however not reported.	Positive	Thick
11	Diminic 2019	Funding Increase	Individual Participation (active, willing and committed, various levels); Connecting Around a Purpose (interesting and relevant problem)	Positive	Thin

#	Study	Context	Mechanism	Outcome	Strength of CMO
12	Dewa 2010	Funding increase	Individual Participation (willing, committed and varying levels) and Connecting around a purpose (interesting and relevant problem, shared vision and decision making). Partners were not invited early into the process (voice at the table). Reported an absence of meaningful interactions and dialogue.	Mixed	Thin
13	Chapman 2018	Funding Increase	Individual Participation (active and committed) and Connecting around a purpose (interesting and relevant problem and a voice at the table)	Positive	Thin
14	Bohman 2011	Funding Increase	Individual Participation (active, varying levels and willing) and Connecting Around a Purpose (interesting and relevant problem)	Mixed	Thin
15	You 2017	Funding reallocation	No engagement. Case managers reflected that they do not feel engaged in the proposed funding model and their quotes reflect low levels of engagement	Negative	Thick
16	Khandaker 2013	Funding reallocation	Individual Participation (Active, committed, willing and varying levels); Connecting Around a Purpose (interesting and relevant problem, shared vision and decision making and a voice at the table); Meaningful Interactions & Dialogue (2-way communication).	Mixed	Thin
17	Rathod 2014	Funding reallocation	Individual Participation (varying levels, active, willing and committed) and Connecting Around a Purpose (Shared vision and decision making and interesting and relevant problem)	Mixed	Thin
18	Gates 2005	Funding increase and reallocation	Individual Participation (active, committed and willing) and Connecting Around a Purpose (shared vision and decision making)	Positive	Thin
19	Steadman 2002	Funding decrease	Significant engagement represented. Individual Participation (Active, Willing, Various Levels and Committed); Connecting Around a Purpose (A Voice at the table, interesting and relevant problem and Shared vision and decision making); Meaningful Interactions & Dialogue (early in the process, respectful, listens and understands and 2-way communication)	Positive	Thick
20	Frakt 2013	Funding Increase	Individual Participation (active, committed and varying levels) and Connecting Around a Purpose (A voice at the table)	Positive	Thin
21	D'Ambrosio 2003	Funding reallocation	Initially there was no engagement across the system. Key stakeholders ensured engagement was present. Individual Participation (varying levels, active, committed and willing), Connecting Around a Purpose (interesting and relevant problem, a voice at the table) and Meaningful Interactions and Dialogue (an invitation early in the process, respectful, two-way communication and listens and understands).	Positive	Thick
22	Cashin 2008	Funding Increase	Individual Participation (Active, Willing, Various Levels and Committed); Connecting Around a Purpose (A Voice at the table, interesting and relevant problem and Shared vision and decision making); Meaningful Interactions & Dialogue (early in the process)	Positive	Thick

#	Study	Context	Mechanism	Outcome	Strength of CMO
23	Chang 1998	Funding decrease and reallocation	Very poor engagement. Some examples of early attempts to engage stakeholders, however this was not sustained.	Negative	Thick
24	Beattie 2006	Funding reallocation	Same level of engagement was present for both the control groups and the intervention groups. Individual participation, connecting around a purpose and meaningful interactions and dialogue was apparent for both groups.	Positive	Thick
25	Deck 2000	Funding reallocation	The authors talked loosely about engagement, but not specifically enough to be able to identify the mechanism. However, they discussed that geography of service agency played a role in the outcomes, and therefore we cautiously identify this as "connecting around a purpose."	Positive	Thin
26	Cohen 2000	Funding reallocation	Individual Participation (varying levels, active, willing and committed), Connecting Around a Purpose (Shared vision and decision making, interesting and relevant problem and a voice at the table) and Meaningful Interactions and Dialogue (two-way communication and an invitation early in the process)	Positive	Thick
27	Nelson 2017	Funding decrease	Individual Participation (active, committed, willing and varying levels), Connecting Around a Purpose (a voice at the table, interesting and relevant problem and shared vision and decision making), Meaningful Interactions and Dialogue (two-way contribution and communication)	Positive	Thick
28	Chandler 2002	Funding decrease and reallocation	Mechanisms of engagement were necessary as this was a controlled study, and therefore engagement was present by design. The authors named it minimally, however in the conclusions the authors discussed strategic planning and therefore this is cautiously tagged as Connecting Around a Purpose.	Positive	Thin
29	Alterman 2000	Funding reallocation	With the pre and post-test design, the authors compared similar systems that had similar levels of engagement with both funding models. Although the authors did not detail the engagement in great detail, we cautiously noted Connecting Around a Purpose in both funding models.	Positive	Thin
30	Andersson 2016	Funding reallocation	Very poor engagement noted. Top-down driven with some early attempts to engage service providers described. No individual participation nor meaningful interactions were present as noted by the authors.	Negative	Thick

Appendix – Search Terms

1. alcohol-related disorders/
2. exp Homeless persons/
3. exp Mental Health/
4. (psychiatry or psychology).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
5. exp Mentally disabled persons/
6. exp Substance-Related Disorders/
7. exp *Mental Disorders/
8. exp *Mentally Ill Persons/
9. or/1-8
10. economics, Medical/
11. exp "Costs and Cost Analysis"/
12. exp "Fees and Charges"/
13. exp Budgets/
14. budget*.ti,ab,kf.
15. (economic* or cost or costs or costly or costing or expenditure or expenditures or expense or expenses).ti,kf.
16. (economic* or cost or costs or costly or costing or expenditure or expenditures or expense or expenses).ab. /freq=2
17. (cost* adj2 (effective* or utilit* or benefit* or minimi* or analy* or outcome or outcomes)).ab,kf.
18. (value adj2 (money or monetary)).ti,ab,kf.
19. exp managed care programs/
20. or/10-19
21. (community adj3 services).ti,ab,kf.\
22. case management*.ti,ab,kf.
23. assertive community treatment*.ti,ab,kf.
24. (patient adj2 management*).ti,ab,kf.
25. (health adj2 administration*).ti,ab,kf.
26. or/21-25
27. 9 and 20 and 26