Technical Brief Disposition of Comments Report

Research Review Title: Management Strategies To Reduce Psychiatric Readmissions

Draft review available for public comment from December 1, 2014 to December 29, 2014.

Research Review Citation: Gaynes BN, Brown C, Lux LJ, Ashok M, Coker-Schwimmer E, Hoffman V, Sheitman B, Viswanathan M. Management Strategies To Reduce Psychiatric Readmissions. Technical Brief No. 21. (Prepared by the RTI-UNC Evidence-based Practice Center under Contract No. 290-2012-00008-I.) AHRQ Publication No.15-EHC018-EF. Rockville, MD: Agency for Healthcare Research and Quality. May 2015. www.effectivehealthcare.ahrq.gov/reports/final.cfm.

Comments to Research Review

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The tables below include the responses by the authors of the review to each comment that was submitted for this draft review. The responses to comments in this disposition report are those of the authors, who are responsible for its contents, and do not necessarily represent the views of the Agency for Healthcare Research and Quality.

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Commentator & Affiliation	Section	Comment	Response
#1 Peer Reviewer	General	In my view the report could benefit from a simpler and clearer conceptual framework. Basically there are three different proposed approaches to reducing re-admissions. 1. Improve the nature of the hospital treatment, itself, so that it is more complete or definitive, and so the patient does not return. 2. Provide some support or linkage for the discharged patient during the transition from the hospital to follow up treatment. It is presumed that appropriate treatment in an outpatient setting following discharge will prevent re-hospitalization. This intervention is not a treatment but an intervention of linkage and support. 3. Provide appropriate outpatient treatment that includes crisis management otherwise reducing the need for hospital re-admission. This framework stands in contrast with the current one presented in a number of significant ways. 1. LOS is not an intervention. It is at best a shorthand for efforts to alter length of stay with the purpose of optimizing the hospital stay.. **[** 2. Transition support is not a treatment. It focuses entirely on linking the two settings of concern to us with respect to re-admission, that is, optimizing the inpatient stay in terms of clinical outcomes and connecting the patient to the next stage of treatment to complete the intervention in an outpatient setting. The importance is predicated on the continued treatment being essential to avoidance of re-hospitalization. While that is a reasonable model of action, in fact, many patients do not need ongoing treatment. Some of the best outcomes are for individuals whose problem or crisis resolves while in the hospital and they receive no treatment following discharge, and they never return to the hospital. They are not, however, the main focus of this intervention, because presumably, they are not even "at risk" of re-admission. The problem, of course, is being able to identify them. By focusing only on the linking phenomenon for approach #2, the review does not have to consider ACT within this intervention. Some individuals WILL be assigned to an ACT team at the time of discharge, and so that treatment intervention incorporates some of the linking functions identified in the model as approach #2 3. These are all treatment services in both frameworks, but separating out the linking function from the treatment function makes the analysis cleaner and clearer - at least in my view.	The framework suggested by the reviewer makes sense. However, given our discussions with our KIs, the topic nominator, and AHRQ, as well as suggestions by other reviewers, we will maintain the categories of LOS, transition support, and alternatives to psychiatric hospitalization. However, to make more clear the conceptual framework and avoid duplicative representation of ACT (per this reviewer's suggestions), we will split up alternatives to psychiatric hospitalization into two categories: ☐ Short-term alternatives to psychiatric rehospitalization (in individuals not at significant risk of harm to self/others) ☐ Long-term approaches for reducing re-admissions in high-risk individuals Hence, this produces 4 categories of strategies (rather than the initial 3).

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		Within this framework, some additional strategies might be applied at each of these approaches, including coercive measures, to implement some aspect of the treatment or intervention that is counter to the voluntary wishes of the patient. That is how I would address outpatient commitment and community treatment orders, but also inpatient commitment and other forms of legal action, persuasion or leverage, which can be applied at each of these three intervention points in an attempt to reduce the likelihood of a re-admission - or to prevent hospitalization. As noted, one of the merits of this framework is that it avoids the duplicative representation of ACT, which is an outpatient treatment approach (#3 in the scheme above) and is not a supportive or linkage approach (#2 in the above approach). ACT teams may be involved in transition linkage, but only for the narrow range of patients admitted to their services. Case management is often distinct from ACT in that it may be used only to link a patient to a service or to provide transition from one service (e.g. hospital) to another (e.g. outpatient). Using this approach allows the analysis to address ACT in only one approach, which I believe is a better way to handle it.	
#2 Peer Reviewer	General	The report focused on a narrow aspect of interventions to reduce readmissions and missing important interventions. It suffers from the lack of a coherent clinical framework, in particular, the idea that reducing readmissions should be achieved by improving clinical outcomes. The review misses important studies. The conclusions are not substantiated given the weaknesses in the report.	We appreciate the reviewer's perspective. The focus on reducing readmission rates and selecting studies specifically addressing psychiatric rehospitalization came from the topic nominator. Further, the scope of the Technical Brief—focusing on mapping the general universe of available evidence, rather than synthesizing all of the available evidence to come to a conclusion about effectiveness—provides conclusions only on what

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			kinds of studies are available (not what interventions work). Studies that may be important from an interventions perspective (e.g., is intensive case management effective in general) may not be eligible for this Technical Brief if the population targeted was not those at high risk of psychiatric readmission.
#2 Peer Reviewer	General	1. LOS for psychiatric hospitalizations: These questions seem to miss the point. Why does one need "clinically meaningful categorizations of LOS" and what does this even mean. The goal of acute hospitalization is to return the patient to a level of functioning and insight such that they can be safely discharged, typically through the use of medications but it may also involve other interventions such as ECT, therapy, and time.	A pressing issue from the nominator for this topic was whether different lengths of stay affected the risk of psychiatric readmission for those at high readmission risk, so we will keep this focus.
#1 Key Informant	General	This is an excellent paper on the complicated but very financially relevant questions on the quality of and outcomes for psychiatric hospitalization with a particular focus on length of stay and readmissions. It is clear from the paper that we are at a very rudimentary stage of exploring these issues in a meaningful way.	We thank the reviewer for the comment.
#2 Key Informant	General	In general, this paper covers a lot of ground, and does so with a sense of both objectivity and completeness. A variety of strategies got a fair review against the questions, and a careful reader will be rewarded with additional insight. This would be a valuable addition to the policy field, and I would even say that it tends more toward an implied synthesis of research findings - in a useful way - than the instructions for review would have led me to believe.	We thank the reviewer for the comment.
#3 Key Informant	General	This is a well-written report that summarizes the literature and key informant contributions on strategies to reduce psychiatric readmissions. It does a nice job of clearly organizing the available literature, providing an analysis of its findings and augmenting the review with relevant comments from informant interviews.	We appreciated the reviewer's comment. We have attempted to identify important research gaps and needs in our section

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		The overall sentiment seems to be that the evidence base is incomplete, and in parts inconclusive. This accurately reflects the state of the field. A small suggestion would be to more extensively identify research gaps for future study, but perhaps that is beyond the scope of the report.	"Gaps in Evidence Base and Future Areas of Research" and "Other Considerations for Future Research." Not having critically reviewed the evidence for interventions, we do not believe it appropriate to provide more specific suggestions than we have currently provided.
#4 Key Informant	General	Thank you for the opportunity to review the draft of "Management Strategies to Reduce Psychiatric Readmissions" for the AHRQ Evidence-based Practice Center Program. The topic of readmissions to psychiatric services is a most important one and we support the effort of AHRQ to explore this area. We also support the need for further research before this information is used for the development of public policy and reimbursement strategies.	We thank the reviewer for the comment.
#5 Key Informant	General	Overall, the group has done an impressive job on a very complex topic! My comments, which are attached, include some further details on a number of the topics. Where possible, I have tried to include references from the literature on serious and persistent mental illness, although not all of these relate specifically to individuals with repeated hospitalizations.	We thank the reviewer for the comment.
#6 Key Informant	General	Overall--well written. Covers the key components of our discussion as well as the current literature and experience of actual providers.	We thank the reviewer for the comment.
#1 Public Reviewer (Carrie Snider of Angels Confidential LLC)	General	Illinois is aware of their problem and is hindered in an ability to reflect change of necessity for what reason is unknown. Suspicious of self-interests to preserve or maintain a status quo. This is unfortunate of just yet one idiot's opinion.	We appreciate the reviewer's particular perspective.
#2 Public Reviewer (Alain Lesage MD, clinician at University of	General	The Brief considered 3 core components for management strategies to reduce readmissions : i) LOS; ii) transition support services; iii) alternatives to hospitalisation. The methods include a literature review and key informants' advice to map the field.	The purpose of our Technical Brief's systematic literature search is to identify and describe key management strategies

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Montreal Mental Health Institute)		It is surprising that higher-ranking synthesis of the literature, such as Health Technology Assessments, does not seem to have been searched. have not been searched. Very important literature is missing, such as: Thornicroft G, Tansella M. What are the arguments for community based mental health care? Copenhagen (DK): World Health Organization (European Region) Health Evidence Network. Available from: http://www.euro.who.int/ __data/assets/pdf_file/0019/74710/E82976.pdf. This high-level evidence synthesis would have provided the authors with a map of components of a balanced mental health care system. It would have helped them to at least name the components (like hospital; long term residential care; shared mental health care with primary care; community mental health care teams- CMHT), and to make a distinction between system interventions like ACT, Intensive Case Management, and individual interventions like Community Treatment Orders; psycho-education for patients or families. It would also have been useful in identifying readily evidence for CMHT that represent the fulcrum of "well-developed community mental health system " (Table 6) or to define what supportive mental health services are with regards to CTOs "treatment alone is not sufficient, given that the strategy is effective only if supporting mental health services are actually available in the community " (page 31). [**Continued on the next row**]	used to reduce psychiatric hospital readmission among adults with histories of or at risk for multiple psychiatric hospital admissions. It was not necessarily to capture all available literature about these management strategies. We agree that Thornicroft and Tansella (2003) address a critical topic in mental health care and provides a thoughtful, high level synthesis, but its scope is broader than ours (i.e., it does not focus on those with repeated psychiatric readmissions) and it did not meet our eligibility criteria outlined in the Methods section.
#2 Public Reviewer (Alain Lesage MD, clinician at University of Montreal Mental Health Institute)	General	[**Continued from previous row**] It would also have helped the authors to avoid missing completely the system intervention of Crisis Resolution Teams (CRT), which were highlighted in the recent IHE Consensus Development Conference on transitions to community. Among the key literature articles missed with regards to CRT are: Joy CB, Adams CE, Rice K: Crisis intervention for people with severe mental illnesses. Cochrane Database Syst Rev 2006, 3:CD001087, and Glover G, Arts G, Babu KS: Crisis resolution/home treatment teams and psychiatric admission rates in England. Br J Psychiatry 2006, 189:441-445. [**Continued on the next row**]	We agree that crisis interventions like CRT are an important component of a functioning mental health care system. However, we did not find any literature on CRT meeting our eligibility criteria (which required that the population sample have a history of repeated psychiatric hospitalization or was targeted because they were at high risk of

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			psychiatric readmission). Specifically, the review by Joy et al. (2006) and Glover et al (2006) did not meet this target population eligibility requirement.
#2 Public Reviewer (Alain Lesage MD, clinician at University of Montreal Mental Health Institute)	General	[**Continued from previous row**] This points to the other weakness in the methods; namely that the key informants should include people from other countries, when dealing with a national issue.[**Continued on the next row**]	We thank the reviewer for the observation. We did attempt to recruit a key informant from outside the US, but we were unsuccessful in our attempts.
#2 Public Reviewer (Alain Lesage MD, clinician at University of Montreal Mental Health Institute)	General	[**Continued from previous row**] Specific comments. -In discussing collaborative care with regards to one study showing the value of coordination at the patient level for bipolar disorders, the authors of the Brief should be aware that generally in the literature, shared mental health care and collaborative care, relate to a core component of the mental health system. In general, collaborative care or shared mental health care refers more to the links between specialist and primary care providers for common mental disorders (see Kates N, Craven M "Shared mental health care. Update from the Collaborative Working Group of the College of Family Physicians of Canada and the Canadian Psychiatric Association; Collaborative Working Group of the College of Family Physicians of Canada, Canadian Psychiatric Association.Can Fam Physician. 2002 May;48:936.) [**Continued on the next row**]	Kates and Craven (2002) also addresses an important topic. While it plays an important part in mental health care, within the specific scope of reducing readmissions (the focus of this brief), it conceptually fits into the framework as an “other approach.”

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#2 Public Reviewer (Alain Lesage MD, clinician at University of Montreal Mental Health Institute)	General	[**Continued from previous row**] -On psycho-educational interventions, it seems that the following systematic review, by Cochrane Collaboration was not included: Xia J, Merinder LB, Belgamwar MR. Psychoeducation for schizophrenia. Cochrane Database Syst Rev. 2011 Jun 15;(6):CD002831. [**Continued on the next row**]	We appreciate the recommendation. We retrieved the Cochrane Review by Xia, Merinder, and Belgamwar (2011) with our original literature searches, but it did not focus on our target population. We manually searched its reference list and found only one eligible study that is already included in the Technical Brief.
#2 Public Reviewer (Alain Lesage MD, clinician at University of Montreal Mental Health Institute)	General	[**Continued from previous row**] -Among the other outcome measures than readmission, the authors indicate quality of life, symptoms reduction, employment and residential stability, but did not suggest mortality. Premature deaths due to cancer, cardiovascular diseases and suicide in particular are relevant since psychiatric patients may have a 10-15 years lower life expectancy, and this may be related, in part, to quality of care, including collaborative care with primary care. See Thornicroft G. A new mental health strategy for England. BMJ. 2011 Mar 3;342:d1346. [**Continued on the next row**]	We agree that premature mortality is a very relevant, important issue needing attention and intervention among people with psychiatric illness. However, Thornicroft (2011) itself addresses this issue as it pertains to the broader population of those with mental illness, rather than the target population of the Technical Brief. It therefore does not meet our report's eligibility criteria.
#2 Public Reviewer (Alain Lesage MD, clinician at University of Montreal Mental Health Institute)	General	[**Continued from previous row**] -In their recommendations, the authors should consider that in publicly managed system of care like in Canada and the UK, a population - based need is taken for services planning, See Lesage A. Regional tertiary psychiatric care and rehabilitation authorities for people with severe mental illness in Canada. Can J Psychiatry. 2014 Apr;59(4):175-7.	We appreciate the very thoughtful perspective about the importance of considering population-based needs when planning mental health care systems provided by this reference.

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			However, as an editorial, the article does not meet our eligibility criteria.
#5 Key Informant	Abstract	The abstract gives a clear overview of the intended purpose and the findings of this technical brief.	We thank the reviewer for the comment.
#1 Peer Reviewer	Background	The narrative uses the term "the seriously mentally ill" throughout. I think that it is common practice, now, to use "person first" language. I suggest "people with a diagnosis of a serious mental illness" or "individuals experiencing serious mental illness" or "users of services for treating a serious mental illness."	We appreciate the reviewer's comments. We agree, and we have made this change throughout the report.
#2 Peer Reviewer	Background	The Hines et al. stat brief is misquoted as indicated that "mental disorders" accounted for the second highest all-cause readmission diagnosis but it was "mood disorders." There is no evidence cited for the statement "readmission can lead providers and patient to feel demoralized or having a sense of failure." The fact that the background lists "key factors in decreasing psychiatric admissions" seems odd given that the whole point of the review is to determine what these factors are. The fact that the authors could not find an "overall theoretical model that identified key intervention components" suggests that they do not have an adequate clinical psychiatric background and understanding of the conditions under which individuals with mental health and substance abuse conditions are hospitalized. It is not clear who substance abuse disorders were included and if they were only included as a "comorbidity" how was it determined that they were "comorbid" to the readmission as opposed to "determinant".	The 11.5% listed for mental disorders (6.5% mood disorders + 5.3% schizophrenia and other psychotic disorders) is a summation of what is listed in Table 3 of the referenced source. Also, we have added a reference for "demoralization." The unavailability of a conceptual theoretical framework for the management strategies reflected what was (absent) in the available literature.
#1 Key Informant	Background	Well done and relevant to the technical brief that follows.	We thank the reviewer for the comment.
#2 Key Informant	Background	As presented, the scope of the background discussion is much smaller than the scope of the paper itself.	The scope of the background section identifies key factors to place the topic in proper context. We have added into the last paragraph of

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			the Background a clarification that the purpose of the brief is to map the available evidence.
#3 Key Informant	Background	The background is well written, and briefly describes the issue under review and the specific terms of the review request. No concerns here.	We thank the reviewer for the comment.
#4 Key Informant	Background	The April 2014 HCUP statistical brief analyzing 2011 data is an important data source for this analysis. The report appears to analyze Medicare data from admissions and readmissions from short term acute care hospitals paid through the Inpatient Prospective Payment System (IPPS) and specifically exclude "psychiatric hospitals" (p.8). Psychiatric hospitals and distinct part psychiatric units within general hospitals are paid through the Inpatient Psychiatric Facilities Prospective Payment System (IPF PPS) and data from these admissions and readmission are not included in the IPPS system. I think it is important to indicate which database is being analyzed since the great majority of psychiatric admissions and discharges are within the IPF prospective payment system. Aware that, to the best of our knowledge, no specific study of Medicare readmissions within the IPF PPS system had been conducted, NAPHS contracted with the Moran Company to do this analysis in 2013. The report is attached. It contains many observations and recommendations relevant to this population, including specific characteristics, readmission rates, and recommendations for discharge planning and care coordination. I would strongly recommend review of this document before finalizing the AHRQ report.	This point is important, and we have made this change. In the first paragraph of the Background section, we have now included the NAPHS study by Moran and clarified that it refers to psychiatric units specifically (both free standing and hospital-based psychiatric units), and we have clarified that the HCUP information refers to community beds (which involve both medical/surgical beds and psychiatric units housed within a general hospital).
#5 Key Informant	Background	Overall, the background section does a good job of describing the reasons to focus on reducing psychiatric readmissions and the current context of this technical brief.	We thank the reviewer for the comment.
#5 Key Informant	Background	Background p. 8, lines 8-13: "are a substantial problem. In 2011, mental disorders accounted for the greatest number of allcause, 30-day readmissions for Medicaid patients 18 to 64 years of age and constituted the greatest percentage of Medicaid readmission (11.5%; mood disorders made up 6.2% and psychotic disorders, 5.3%).[1] Among those with private insurance, mental disorders accounted for the second highest number of all-cause 30-day readmissions and the second-highest readmission rate for privately insured readmissions	We agree, and we have revised text to take out duplicative references to number and percentages.

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		(mood disorders, 3.2%).[1] This issue is especially pertinent…" In discussing the significance of readmissions due to mental disorders, the numerically highest cause of all-cause readmissions will necessarily be the cause with the highest percentage of readmissions. It may be clearer to note that "In 2011, mental disorders accounted for the greatest number of all-cause, 30-day readmissions for Medicaid patients 18 to 64 years of age and the second highest number of all-cause 30-day readmissions among those with private insurance. Of Medicaid readmissions, 11.5% had a mental disorder (6.2% had a mood disorder, 5.3% had a psychotic disorder) and of privately insured readmissions, 3.2% had a mood disorder."	
#5 Key Informant	Background	Background p. 8, lines 13-17: "rate for privately insured readmissions (mood disorders, 3.2%).[1] This issue is especially pertinent for those with chronic psychiatric illness who have experienced repeated admissions; indeed, between 40 percent and 50 percent of patients with a history of repeated psychiatric hospitalizations are readmitted within 12 months.[2-4]" The definition of "repeated admissions" that is used in this sentence is unclear. This makes it hard to understand the full implications of the observed percentages. The cited references that relate to this percentage are also non-specific and refer to relatively old data that may no longer be applicable due to changes in the mental health care delivery system. For example, a more recent study of individuals with schizophrenia in the Florida Medicaid system (Boaz TL, Becker MA, Andel R, Van Dorn RA, Choi J, Sikirica M. Risk factors for early readmission to acute care for persons with schizophrenia taking antipsychotic medications. Psychiatr Serv. 2013 Dec 1;64(12):1225-9. PubMed PMID: 23945797.) found that "84% of episodes (N=5,557) resulted in participants being readmitted to acute care during the study period; 23% (N=1,490 episodes) occurred within 30 days, and 72% (N=4,754) occurred within one year." Data from the AHRQ HCUP databases suggest that for individuals with schizophrenia and other psychoses the allcause 30 readmission rate (2012) is 22.4% whereas the corresponding rate for individuals with mood disorders is 15%.	We clarified our definition of psychiatric readmission as 2 or more prior psychiatric hospitalization in the first paragraph of the Background section. The citation by Boaz is important but it does not address those with 2 or more psychiatric admissions, so we will leave this reference out. We attempted to find more recent data on readmission rates for those with 2 or more psychiatric hospitalizations, but we could not find any. We have now clarified the time frame for this data in the text.

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#5 Key Informant	Background	Background p. 8, lines 23-25: "issues such as employment and residential status.6 A decrease in number of psychiatric admissions, typically measured over 30 days, 90 days, or 1 year, is an important measure of successful outpatient mental health treatment. With increasing pressure to decrease health care…" The statement that reduced psychiatric admissions are "an important measure of successful outpatient mental health treatment" is offered without supporting citations. In an ideal world, reduced readmissions should be a reflection of better linkage to followup at discharge, better quality outpatient care and enhanced wellbeing and functioning of patients (so that readmission is not needed). Unfortunately, with the increasing pressure to reduce costs (which is appropriately noted in the next sentence), decreases in the number of readmissions could just as easily be a reflection of reduced numbers of psychiatric beds (for acute and for chronic care), more stringent utilization review by payers, or readmission penalties that shift hospital and provider behavior away from readmission. It may be more accurate to note that a decrease in number of psychiatric readmissions is often used as a measure of successful discharge planning and outpatient mental health treatment, but that such measures can be confounded by factors such as psychiatric bed availability, readmission penalties and utilization review policies related to admissions.	We agree and have revised the text as suggested in the second paragraph of the Background section.
#6 Key Informant	Background	Accurate as written.	We thank the reviewer for the comment.
#1 Public Reviewer (Carrie Snider of Angels Confidential LLC)	Background	I am a person who has participated in counseling scince 1st grade of school as well as up until dropping out of highschool. School counselors assisted in admission into inpatient mental health hospitalization treatment in Jr. High. Way to familiar with available treatment options and limitations with regards to their effectivenss.	We thank the reviewer for the perspective.
#1 Peer Reviewer	Guiding Questions	The text should indicate that GQ stands for Guiding Questions.	We have clarified this point in the background, where a subheading now reads "Guiding Questions (GQs)."

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#1 Key Informant	Guiding Questions	The authors have succinctly stated the key questions that need review. The only other question I might have asked on #3 about effectiveness is whether there is any evidence that psychiatric hospitalization, length of stay, or readmission rates have an impact on the suicide rate.	This suggestion is a useful one, but that outcome was not one for which the topic nominator nor Key Informants expressed a clear interest, so that outcome is out of the scope of this review.
#2 Key Informant	Guiding Questions	(See next steps, too.) The questions were fine, but did the structuring of the discussion around those questions lead to more uncertainty than might be present in fact as to which strategies may work? At the end, it appears that ACT is the only strategy that should be considered, but I'm not sure if the authors intended that to be a reader's overall conclusion. Backing up, however, the questions were in themselves clear - as were the authors - in how they would frame and limit the analysis in the paper. They did make clear that the paper was not intended to cover everything about every management strategy, just to evaluate them against these questions.	The purpose of the Technical Brief is to map out the available evidence addressing the topic, not to provide a conclusion about effective treatment. We have added into the Background clarification that the purpose of the brief is to map the available evidence
#3 Key Informant	Guiding Questions	The guiding questions are appropriate to the review, specific enough to allow for conclusions (should the evidence base be sufficient) and of import to the likely audience.	We thank the reviewer for the comment.
#4 Key Informant	Guiding Questions	The guiding questions are well stated.	We thank the reviewer for the comment.
#4 Key Informant	Guiding Questions	The potential key factors for decreasing the likelihood of subsequent psychiatric admissions (sufficient inpatient care, adequate discharge plans, and continuing adequate outpatient care) are well-stated and served as a basis for exploration of the literature. However, it should be noted that limited information was subsequently found on all these factors.	The concluding information requested is provided in the Findings and Next Steps sections of the report
#5 Key Informant	Guiding Questions	Well done, overall. See attached for specific comments. The guiding questions are well written and do a good job of outlining the key considerations for this topic. The PICOTS framework is well delineated and the exclusion criteria seem appropriate. There were no notations about changes that were made.	We thank the reviewer for the comment.

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#6 Key Informant	Guiding Questions	As we discussed.	We thank the reviewer for the comment.
#1 Public Reviewer (Carrie Snider of Angels Confidential LLC)	Guiding Questions	What role legal injustice rendered in a persons life inexplicably has created a seemingly nervous break down or unhealthy mental status of eligibility for psychiatric services. What inability to pay for prescription medicine or denial of payment by medicaid or other insurures may have impacted a otherwise medicated recipient of services.	We thank the reviewer for the perspective.
#2 Peer Reviewer	Methods	Important articles and interventions are missing which raises questions about the methods.Examples include scheduling appointments before hospital discharge, minimizing the period of time between discharge and the first scheduled outpatient appointment, providing telephone reminders and transportation to outpatient appointments, referring patients back to the same clinician who treated them before the hospitalization, contact between inpatient and outpatient physicians, patient education, offering extended supplies of medication and postdischarge pharmacy planning, Below are some examples. There are other missing articles: 1. Patient communication with outpatient provider/scheduling an outpatient appt. prior to discharge. Olfson et al. Linking Inpatients with Schizophrenia to Outpatient Care, 1998 2. The "Transition Discharge Model": Reynolds W, Lauder W, Sharkey S, Maciver S, Veitch T, Cameron D. The effects of a transitional discharge model for psychiatric patients. J Psychiatr Ment Health Nurs 2004;11:82–88. 3. Length of stay studies are missing such as Figueroa R, Harman J, Engberg J. Use of claims data to examine the impact of length of inpatient psychiatric stay on readmission rate. Psychiatr Serv. 2004 May;55(5):560-5; Mark TL, Tomic KS, Kowlessar N, Chu BC, Vandivort-Warren R, Smith S. Erratum to: Hospital Readmission Among Medicaid Patients with an Index Hospitalization for Mental and/or Substance Use Disorder. J Behav Health Serv Res. 2013 Mar 23;Wickizer, T. and D. Lessler, Do treatment restrictions imposed by utilization management increase the likelihood of readmission for psychiatric patients? Medical Care, 1998. 36(6): p. 844-850. 4. Severity of illness upon discharge. Lyons, J., M. O'Mahoney, S. Miller, et al., Predicting readmission to the psychiatric hospital in a managed care environment: implications for quality indicators. American Journal of	These are important references, but they do not address the target population identified by our topic nominator (those with repeated psychiatric readmissions).

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		Psychiatry, 1997. 154(3): p. 337-340. 5. Stabilization strategies based on discharge planning and medication. Fontanella, C., K. Pottick, L. Warner, et al., Effects of Medication Management and Discharge Planning on Early Readmission of Psychiatrically Hospitalized Adolescents. Social Work in Mental Health, 2010. 8(2): p. 117-13	
#3 Peer Reviewer	Methods	The rigorousness of inclusion criteria are very laudable, potentially minimizing false positive results with respect to the population (such as it can be defined) focused upon. The risk of leaving out successful programs/strategies is a challenge.	We thank the reviewer for the comment.
#1 Key Informant	Methods	The targeted searches of the published literature and "gray" literature informed the findings and conclusions. I believe the authors have done an excellent job in their literature review.	We thank the reviewer for the comment.
#3 Key Informant	Methods	Methods are soundly described, with the search terms included in the appendix. Eligibility criteria was very helpful to include. Description of the KI discussions was brief, but okay, although there is a reference to Appendix B that may have been omitted in the copy I had. Appendix B listed search terms but I couldn't find the piece elaborating on the KI process.	We thank the reviewer for the comment; we have fixed the callout. Our KI Interview Methodology is described in Appendix A.
#4 Key Informant	Methods	The use of literature in combination with key informants appears to be an appropriate approach for the review of the phenomenon of psychiatric readmissions. The literature is obviously very limited, and many of the studies reported were from the 1990s. Psychiatric treatment has changed significantly in the last 15 years. The literature related to readmissions has not kept up with the changes.	This point is a good one. We note that many of the identified articles included in GQ 3 are from 2000 or later
#5 Key Informant	Methods	The methods section is clear and concise. The gray literature searches seem broadly based and the restriction of published literature searches to the past 25 years seems appropriate given the significant changes in the health care delivery system in recent decades. Using different eligibility for evidence review for GQ3 vs. GQ1, 2 and 4 also seems appropriate. The description of the key informant engagement and role is also clearly written.	We thank the reviewer for the comment.
#5 Key Informant	Methods	Methods p. 10, lines 32: “Our population of interest was adults (≥18 years of age) with repeated psychiatric hospital admissions or who were assessed as being at high risk of psychiatric readmission. This specification allows us to focus on those in the repeated risk group, and it excludes studies that may have relevant management strategies but	We considered a population at high risk of psychiatric readmission if the article specifically identified the population targeted as

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		do not target this population (e.g., excluded studies…" In defining the population of interest, it is not clear what criteria would make an individual "at high risk of psychiatric readmission" in the absence of a past history of repeated hospitalizations. Even if a precise definition was not used, it might be helpful to include examples of such at-risk groups.	being at high risk of psychiatric readmission. Our eligibility criteria read, "Our population of interest was adults (≥18 years of age) with repeated psychiatric hospital admissions or who were assessed as being at high risk of psychiatric readmission." We have now added "(i.e., selection criteria for a study indicated specifically targeting those who were at high risk of psychiatric readmission)."
#5 Key Informant	Methods	**[NOTE FROM EPC: See "Appendix A to Peer and Public Review Comments Disposition Table", Excerpt of Table 1. Eligibility criteria]** p. 12, line 44-48: The document does note that there is overlap between the transition support services and alternatives to psychiatric hospitalization but it may also be important to note that there are roles for assertive community treatment, intensive outpatient treatment, case management and outpatient commitment independent of those categories (e.g., for intensive ongoing treatment and for support and assistance to severely ill individuals who are well past discharge but not at immediate risk of hospitalization). With the exception of extended observation (i.e., in a hospital or emergency department), none of the other approaches would be appropriate for an individual at substantive risk of harm to self or others p. 12, line 44-48: However, outpatient commitment and assertive community treatment are not typically available within hours of the need for heightened care. Thus, if an individual is brought to the emergency department who is extremely psychotic but not taking medications or not going to appointments, he or she could not realistically be discharged with a plan to get an outpatient commitment order and have medications administered by an ACT team on a daily basis to assure adherence. I am concerned that including ACT, intensive outpatient treatment,	We agree with the reviewer's suggestion, and we have re-categorized the strategies into the four interventions described.

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		collaborative care and outpatient commitment as "alternatives" to psychiatric hospitalization may be misleading. Also, outpatient commitment is not generally subsumed under the broad category of intensive outpatient programs; I would suggest listing those separately. Although it would require some cutting/pasting of the document, it may be clearer and more accurate to have the interventions divided as: • Varying lengths of stay (with observation, including in emergency departments being the shortest version of this) • Transition support services after discharge o supervised discharge o transitional discharge services o needs-oriented discharge planning o short term case management o bridge visits o computerized decision-support tool for inpatient/outpatient service coordination • Alternatives to psychiatric hospitalization (in individuals not at significant risk of harm to self/others) o Partial hospitalization o Intensive outpatient programs o Crisis residential services o Respite care • Other approaches to reducing re-admissions in high-risk individuals o Assertive Community Treatment o Involuntary outpatient commitment o Case management (both intensive and nonintensive) o Psychoeducation o Various outpatient services, including detoxification o Collaborative care o Peer support The other distinction between these groups of interventions relates to the typical duration of the intervention. Transition support services and	

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		alternatives to hospitalization (e.g., partial hospitalization, respite care, observation, crisis residence, intensive outpatient treatment) are generally short-term (days to weeks) whereas the other approaches are typically months to years in duration.	
#1 Public Reviewer (Carrie Snider of Angels Confidential LLC)	Methods	Observation of functioning and or requests for services whether obtained or denied. Intimidation factors may be discoverable through general survey methods. Might proove useful to collect information from clients regarding what works.	We agree with the reviewer about the importance of patient-centered outcomes, and we have pointed these out in several places (e.g., in Findings, under the initial description of "Alternatives to Psychiatric Hospitalization", last paragraph).
#1 Peer Reviewer	Findings	The section on partial hospitalization inexplicably overlooks an entire literature and several review articles. For example, Marcela Horvitz-Lennon and her colleagues published a fine review in the Am J Psychiatry 2001 158(5):676-685. I believe there have also been reviews in the various Schizophrenia PORT projects. The results are more supportive of the most intensive approaches to partial hospitalization as a substitute for some hospital stays and certainly used in conjunction with a hospital stay to reduce the LOS. I believe that re-admissions were also shown to be reduced, but I may mis-remember the findings.	This is an important article about rehospitalization for the general population, but it does not fit our eligibility criteria, so we will not include it.
#1 Peer Reviewer	Findings	There are some continuing differences of opinion of how to interpret the findings about OPC and CTO. It seems odd, however, to use the British term, CTO, but not to review that literature. In general I agree with the conclusion that neither of the experiments found differences between OPC and the comparator, but a bit more elucidation would be a good idea if this is a significant part of the report. The Bellevue study was under-powered to find a difference, if one existed. As noted. the North Carolina study did not find a difference until they broke the experimental conditions. Follow up studies by this group with other populations and with a propensity-scoring match have found differences that some feel are worth a second look with respect to the effectiveness of OPC. I think the most important observation is that all of the studies were done in the context of intensive services, looking for the value-added if coercive measures. What is likely to make the difference are the intensive services with little benefit attributable to the coercion.	We appreciate the reviewer's insightful comment. The purpose of the Tech Brief is to map out the evidence addressing these issues, rather than conclude anything about effectiveness. However, the point about intensity is an important one, and we mention this point now in the key findings in GQ 3 for OPC/CTO strategies. Also regarding our literature

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			review: we considered all literature that addressed OPC and CTO strategies, and we assumed these strategies to be similar (just as antidepressant interventions are similar). We kept in the OPC/CTO distinctions to be transparent about U.S. vs. international experiences. I .
#2 Peer Reviewer	Findings	The length of stay findings are misleading given the fact that they are missing key studies and have a poor framework for understanding the reason why longer lengths of stay may reduce readmissions (e.g., longer length of stay may allow patients to adequately recover and to ensure an affective treatment approach thus preventing relapse); the transition support interventions completely leave out interventions that occur before the patient is discharged such as making appointments with outpatient providers and long acting medications' The findings that "no consensus existing regarding optimal approaches" seems beside the point. The question is whether each of these approaches individually can prevent readmissions. Some of the interventions, such as the "computerized decision support tool" are not clearly defined.	The eligibility criterion for study inclusion was that patients involved in studies had repeated psychiatric admissions or that the intervention targeted those identified as a high risk of psychiatric readmission. The requirement excluded some studies that involved relevant strategies but targeted the wrong population. We provide a definition of “computerized decision-support” in Table 2.
#3 Peer Reviewer	Findings	One kind of initiative, home-based service/stabilization, was excluded from the review. This reviewer recommends that home-based services be noted along with other "promising" interventions in a separate section that is identifies them as such in a way that is not obscure to the reader. Other examples are peer bridging/counseling services (with 1 RCT), Critical Time Intervention (mentioned in passing).	This service may be relevant for this population in general, but we identified no articles that addressed its use in our target population. We have added this point in GQ4 in the “Gaps in Evidence Base and Future Areas of Research” section as the

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			"Fifth" gap.
#1 Key Informant	Findings	Although initially discouraging, the findings of this paper point a direction for future research in coming up with better strategies around the broader questions of effective hospital stays and community outcomes. The complexity of the task is underscored because of the many variables that must be attended to and the lack of an overall theoretical model.	We thank the reviewer for the comment.
#2 Key Informant	Findings	Just a few clarifying questions... On p 20/21 of 103 (Author page 13-14, Table 4) are the disadvantages of alternatives to psych hospitalization listed in the wrong column? Should they be in column 3?	There were no disadvantages reported for the Alternatives to Psychiatric Hospitalization in Table 4.
#2 Key Informant	Findings	On p 22, (author page 15, l. 3-19), could the authors review that paragraph to see if there is a stretch in reasoning, i.e., if the benefits of OPC are tied to the use of injectables, wouldn't the injectables be the reason - and couldn't one draw the same conclusion about the use of injectables with other strategies? In that case, maybe it would be best to forego the injectable conversation, or take it to a brief side discussion about injectables possibly benefiting one or more management strategies, with a notation that an examination of their effectiveness was not part of the scope of this paper.	We agree with the reviewers comments, and we revised the text to clarify the sentences regarding injectable medication.
#2 Key Informant	Findings	I struggled a little to make sense of Table 5 (author p. 16). Maybe it's just me, but I think it's the structure of the table itself, and it's a little hard to see how all the conclusions fit there.	We appreciate the reviewer's comment. The purpose of the table was to describe what the available literature identified as variations in these strategies, rather than to support a conclusion (which is beyond the scope of a Technical Brief). Accordingly, we will keep as is.

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#3 Key Informant	Findings	Findings were in keeping with the volume of literature that the search yielded. It is unfortunate that there aren't as many explicit studies of rehospitalization, but this could suggest important next steps for research.	We agree with the reviewer's comment, which is covered under "1." in Next Steps
#4 Key Informant	Findings	The research done to prepare this technical brief is a very important contribution to the study of psychiatric readmissions. However, I think it is very important to note that it is a beginning point and does not substantiate recommendations for any particular type of interventions.	We agree and clarified this point in the first paragraph of "Summary and Implications."
#5 Key Informant	Findings	pp. 15 ff: Overall, this section is well-written and gives a balanced description of the available data on interventions to reduce psychiatric hospital readmissions. The "evidence map" section provides a clear summary of studies and provides an overview of the areas in which more research is needed.	We thank the reviewer for the comment.
#5 Key Informant	Findings	p. 18, line 15 -18: "with large variations based on jurisdiction and specific state/country law. For example, outpatient commitment laws in the United States require a judge's order, supported by clinician input, and do not allow patients to be given medications forcibly. Community treatment orders can often be…" lines 32-34: "of insight as part of the disease process).[62,63] Specifics of the orders (e.g., whether medication can be given forcibly by intramuscular injection and what conditions need to be met to actually return a patient to an inpatient setting involuntarily) vary by specific state and country. However, …" The statement on lines 32-34 later on this page seems to contrast with that on lines 15-18 by implying that some states do permit forcible administration of medications as part of outpatient commitment.	We agree with the reviewers comments and revised the text to state: "For example, outpatient commitment laws in the United States require a judge's order, supported by clinician input, and **generally** do not allow patients to be given medications forcibly."
#5 Key Informant	Findings	p. 18, line 28-31: "for treatment and involves input from clinicians and the judicial system. The literature implies that involuntary/compulsory treatment is required to reduce hospitalizations for some individuals with severe and persistent mental illness because of the high prevalence of anosognosia (i.e., lack of insight as part of the disease process).[62,63] Specifics of the orders (e.g., whether medication…" I found this statement to be a bit confusing as written. It also seemed redundant to have the word "involuntary" as well as the word "compulsory" in the sentence. It may be clearer if written as follows:	We agree with the reviewers comments and substituted the suggested sentence: "The literature implies that some individuals may need involuntary treatment to prevent readmission because of the high prevalence of anosognosia

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		The literature implies that some individuals may need involuntary treatment to prevent readmission because of the high prevalence of anosognosia (i.e., lack of insight as part of the disease process) with severe and persistent mental illness. The Treatment Advocacy Center has a great deal of information on the anosognosia concept (http://www.treatmentadvocacycenter.org/problem/anosognosia) as well as other information on assisted outpatient treatment laws across the US (http://www.treatmentadvocacycenter.org/index.php).	(i.e., lack of insight as part of the disease process) with severe and persistent mental illness."
#5 Key Informant	Findings	p. 18, line 38: "Partial hospitalization or "respite care" is a broad term for treatment that is available outside an individual's home to provide acute care in the case of a psychiatric crisis or destabilization not requiring involuntary psychiatric commitment. It exists in many forms but is meant to be less…" (See also Table 4 on p. 20) • Partial hospitalization: fewer hospitalizations; less expensive than inpatient care; useful to treat individuals whose hospitalization driven primarily by housing issues I don't believe that "respite care" is typically viewed as synonymous with partial hospitalization. At least in my area of the country, partial hospitalization is a program where individuals attend treatment during the day but return home to their family at night. "Respite care" is less commonly available for those with mental illness, but in the context of individuals with developmental disability, it is a short term placement (including overnight stay) outside of the individual's usual home to allow usual caretakers (e.g., parents) to have a break away from caretaking responsibilities (e.g., vacation, family crisis, family illness).	We agree with the reviewer, and clarified that no relevant article on respite care was included. Accordingly, we have dropped the reference to respite care in the findings and only discuss Partial Hospitalization.
#5 Key Informant	Findings	p. 18, line 55-57: "…hospitalization. Data support this observation. Approximately 20 percent of jail inmates and 15 percent of state prisoners have a serious mental illness, a rate that is approximately 10 times that of individuals with serious mental illness remaining in state hospitals.[74]" A recent report on mentally ill individuals in NY jails/prisons may also be worth citing and may contain additional references	We appreciate the reviewer's suggestion. However, the population involved is outside of the Technical Brief scope.

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		(http://www.nytimes.com/interactive/2014/12/02/nyregion/mentalhealth-justice-report.html).	
#5 Key Informant	Findings	p. 19 lines 12-21: "**Length of stay for psychiatric hospitalizations.** Potential advantages of brief LOS include deinstitutionalization and freeing up of hospital beds to accommodate more patients who require inpatient treatment.[16,17] However, a potential disadvantage in brief LOS is the difficulty in clearly identifying patients who require longer care.[16] KIs pointed out that the primary advantages of longer stays are the additional monitoring that patients receive, and the opportunity to be stabilized via treatment. They noted that among the disadvantages of longer stays are unintended consequences of hospitalization (e.g., acquiring infections) and the lack of knowledge regarding the specific consequences of hospitalizations beyond 20 days." It may be better to frame "deinstitutionalization" as "maintaining individuals in a less restrictive setting of care." Other advantages of shorter lengths of stay include less financial cost for patients and families and less personal disruption (e.g., job, school). **[continued in next row]**	We appreciate the reviewer's observation. As brief LOS could refer to other situations (besides "maintaining individuals in a less restrictive setting of care"), we have not made any change to the text. For example, after brief LOS, a patient may be entirely discharged without any maintenance.
#5 Key Informant	Findings	p. 19 lines 12-21: Acquiring nosocomial infections would be uncommon as a consequence of a prolonged psychiatric admission although it is clearly an issue for individuals with significant physical illness who are hospitalized on medical/surgical services. Potential for exposure to influenza, TB, hepatitis, and other disorders and potential for colonization with MRSA or other resistant organisms also occurs in non-hospital communal settings and is not unique to long stay psychiatric hospitals. (Infection risk is also mentioned in Table 4, page 20). Other unintended consequences of hospitalization (e.g., housing loss, job loss, school disruption, financial costs leading to bankruptcy) are probably more frequent. **[continued in next row]**	We thank the reviewer for the comment, and we have now noted the unintended consequences in "Other Considerations for Future Research" in GQ 4

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#5 Key Informant	Findings	p. 19 lines 12-21: The lack of knowledge about consequences of lengthy stays (i.e., beyond 20 days) may be better framed as a separate sentence; it does not seem to be a specific disadvantage of longer stays. **[continued in next row]**	We appreciate the reviewer's comment. However, the lack of knowledge about potential consequences of longer stays is a disadvantage when a provider needs to make a decision on the LOS. We have clarified this point by making it a second sentence as suggested by the reviewer.
#5 Key Informant	Findings	p. 19 lines 12-21: Other advantages of longer stays (based on anecdotal observations over 25+ years of acute care psychiatric experience) include an increased ability to provide education regarding symptoms of illness and signs of recurrent episodes as well as education about medications and the need to adhere to treatment. Individuals are often more receptive to hearing this information when their acute symptoms have resolved but they still appreciate the serious impact of recurrent illness (e.g., in terms of readmission and personal/family distress). **[continued in next row]**	We appreciate the reviewer's comment. In this section, we report on what the literature and our KIs described as key issues. The points noted here are important but were not identified by our literature search or our KI interviews. However, we now mention these in our "Considerations for Future Research" section.
#5 Key Informant	Findings	p. 19 lines 12-21: There is also an increased ability to engage patients and their families in reviewing the precipitants for admission and how to keep these situations from occurring again if patients are able to stay until their symptoms are better controlled. Families are understandably concerned and are sometimes frightened when their loved ones have exhibited acute psychiatric symptoms. This is particularly true when behavior has been dangerous or threatening. Once symptoms have abated, if the patient and family have an opportunity to meet in a neutral and safe environment (guided and moderated by psychiatric staff), it can help to resolve fears, concerns and conflicts and allow the patient to return to live with family.	We appreciate the reviewer's comment. In this section, we report on what the literature and our KIs described as key issues. The points noted here are important but were not identified by our literature search or our KI interviews. However, we now mention these in our "Considerations for Future Research"

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		Otherwise, family members can feel unsafe and refuse to allow the patient return home, which promotes further family and housing disruption. In other circumstances (e.g., when there is a greater risk of relapse or threatening behavior if the patient were to return to their prior living arrangements), a longer length of stay can permit alternative housing such as a community residence placement to be arranged. **[continued in next row]**	section.
#5 Key Informant	Findings	p. 19 lines 12-21: In terms of disadvantages, some evidence suggests that shorter LOS may be associated with a higher readmission rate, at least in a subset of patients (Boaz TL, Becker MA, Andel R, Van Dorn RA, Choi J, Sikirica M. Risk factors for early readmission to acute care for persons with schizophrenia taking antipsychotic medications. Psychiatr Serv. 2013 Dec 1;64(12):1225-9. PubMed PMID: 23945797; Boden R, Brandt L, Kieler H, Andersen M, Reutfors J. Early nonadherence to medication and other risk factors for rehospitalization in schizophrenia and schizoaffective disorder. Schizophr Res. 2011 Dec;133(1-3):36-41. PubMed PMID: 21982098; Baron K, Hays JR. Characteristics of readmitted psychiatric inpatients. Psychol Rep. 2003 Aug;93(1):235-8. PubMed PMID: 14563056.)	We thank the reviewer for this comment. These papers have important points for the general psychiatric population, but these studies were not eligible for our review because the population was not eligible (Boaz) or there was no comparison group involved (Boden; Baron).
#5 Key Informant	Findings	p. 19 lines 32-41: "Potential advantages of ICM include its role in reducing costs associated with hospital readmissions and its ability to be easily adapted to various contexts.[18,27] Disadvantages may include additional new costs being incurred for the mental health systems to run ICM; we found conflicting information on whether this disadvantage may be minimized by significant reductions in inpatient costs, although the findings lean toward ICM being cost effective.[27,31-33] Professional staff may initially resist the use of community-living aides as part of ICM.[27] However, in one instance, these concerns were alleviated by competent community-living aides who were able to demonstrate their value to professional staff.[27] We found very limited…" The information on cost benefits and disadvantages for ICM would presumably hold true for any intervention aimed at reducing readmissions – the intervention itself costs something but cost savings would result from fewer admissions. For any of these interventions, including ICM, cost savings could also result if any readmissions continued to occur but were shorter in length.	We appreciate the reviewer's comment. We have now included this information in our consideration of potential advantages/disadvantages of ICM.

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		In fact, programs such as ICM could produce overall cost savings by getting people care earlier in a severe episode. This could cause a paradoxical increase in readmissions, but allowing symptoms to be controlled more rapidly could lead to shorter stays and fewer total hospital days. **[continued in next row]**	
#5 Key Informant	Findings	p. 19 lines 32-41: Based on the text as written, it would not be clear to me what a "community living aide" does. If this is the same as a peer support specialist, that language may be more informative and less confusing to readers. Many ICM programs do incorporate peer support, which can be quite positive. Anecdotally, when issues arise it tends to be when peers are used as a substitute for professionally trained case managers (typically to save money) rather than as an augmentation of professionally trained case managers and/or when peer support specialists do not receive sufficient support/supervision in their case management roles. Sledge et al. (WH, Lawless M, Sells D, et al. Effectiveness of peer support in reducing readmissions of persons with multiple psychiatric hospitalizations. Psychiatr Serv. 2011 May;62(5):541-4. PMID: 21532082) provide a specific description of the supervision arrangements for peer support specialists in their trial but not all community based programs have formal supervision in place. **[continued in next row]**	We have clarified in the text that a community living aide serves as a peer support specialist.
#5 Key Informant	Findings	p. 19 lines 32-41: Another paper (Rivera JJ, Sullivan AM, Valenti SS. Adding consumer-providers to intensive case management: does it improve outcome? Psychiatr Serv. 2007 Jun;58(6):802-9. PubMed PMID: 17535940) may be relevant to mention here. Although the issue of hospitalizations was not mentioned in the abstract, the patients were randomly assigned to the intervention groups (ICM, ICM+peer support, conventional care) and the full text of the article notes that "Across the sample of 203 clients, there were 4,261 hospitalization days in the six-month interval before treatment, corresponding to a monthly average of 3.50 per client. After treatment started, this average dropped to 2.24 from baseline to six months (2,725 hospitalization days) and to 1.89 from seven to 12 months (2,304 hospitalization days). These data represent a 46% decrease in hospitalizations across 18 months. A treatment condition (three groups) × time (baseline, six months, and 12 months) repeated-measures ANOVA showed only a main effect of time	We appreciate the reviewer's suggestion, but the population involved in these studies was not our target population.

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		(F=12.92, df=2 and 400, p<.01, η^2 =.06)." A similar, smaller randomized study (O'Donnell M, Parker G, Proberts M, Matthews R, Fisher D, Johnson B, Hadzi-Pavlovic D. A study of client-focused case management and consumer advocacy: the Community and Consumer Service Project. Aust N Z J Psychiatry. 1999 Oct;33(5):684-93. PubMed PMID: 10544992.) also found no difference in numbers of hospital days or numbers of readmissions noting that "The mean number of hospital admissions since illness onset [mean duration of illness 117 months] was six (SD = 6.4, range = 1–30), with a median number of four admissions. The mean and median number of admissions in the year prior to entry into the study was one (SD = 0.93, range = 0–6). …. There was no significant difference between groups in the number of days spent in hospital (F2,76 = 1.23, p = 0.30) or whether they were readmitted (F2,76 = 1.26, p = 0.29) during their involvement in the Project. Although there was a trend towards a greater number of client contacts with crisis services for the control group compared with the experimental groups, the difference between groups was not significant."	
#5 Key Informant	Findings	p. 19 lines 32-41: "information in the literature on the advantages of nonintensive case management programs. One of the major disadvantages of case management is that these interventions rely heavily on the case managers and their workloads, and heavy workloads may contribute to disappointing results.[19] Additionally, case management is more expensive than providing usual care.[35]" It's not clear whether the statement about caseloads is intended to refer only to non-intensive case management or whether it refers to ICM as well. With both types of case management, the relative effectiveness of a case manager can be influenced by the number of individuals served (i.e., caseload) but also by the severity of illness and unmet needs of the individuals served. The geographic clustering of the individuals who are served will influence the amount of time that has to be devoted for case managers to travel from client to client. Also, the extent to which health care services and mental health services are fragmented or in short supply and the level of administrative bureaucracy to access services will have sizeable impacts on case managers' efficiency and effectiveness.	The statement refers specifically to "nonintensive case management." We have clarified this point by italicizing the word.

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#5 Key Informant	Findings	p. 21 Table 4: **[NOTE FROM EPC: see "Appendix A to Peer and Public Review Comments Disposition Table", Excerpt of Table 4. Advantages and disadvantages of management strategies]** There seems to be a formatting issue with items such as ACT, OPC/CTO and partial hospitalization placed under transition support services.	We thank the reviewer for bringing this formatting error to our attention. We have moved the points describing ACT and OPC/CTO to the new "Other approaches" column, and we moved partial hospitalization into the "Alternatives to psychiatric hospitalization" column.
#5 Key Informant	Findings	p. 21 lines 48-54: "**Alternatives to psychiatric hospitalization.** The literature did not mention any specific advantages of ACT in comparison with other alternatives to psychiatric hospitalization, nor did the KIs delineate any. However, the primary advantages of ACT as a treatment modality include its consistent ability to decrease hospital admissions or bed days,[45,55,56] even in modified forms;[47] its ability to sustain contact with difficult-to-engage patients;[49,54] and its ability to affect other outcomes such as increased social functioning and consumer satisfaction.[45,56] A major…" The document notes that ACT is advantageous in sustaining contact with difficult-to-engage patients, but a related feature is the fact that the ACT team goes to the patient rather than on relying upon the patient to go to the treatment provider. Intensive Case Management also does this to some extent, but ACT is unique in incorporating medication management into the homebased services. This is particularly important for individuals who lack insight due to severe mental illness and would otherwise drop out of treatment rapidly. Other individuals have difficulty traveling to appointments either due to physical illness, psychological factors (e.g., agoraphobia, persecutory ideas), or transportation constraints. By working with the patient in his or her natural setting, there are additional advantages such as gaining an understanding of the patient's living environment. Often there are more opportunities for contact with and engagement of others in the household as compared to more typical outpatient followup.	We revised the text in the following manner: "However, the primary advantages of ACT as a treatment modality include its consistent ability to decrease hospital admissions or bed days,[45,55,56] even in modified forms;[47] its ability to sustain contact with difficult-to-engage patients (such as clients requiring home-based services due to lack of insight or other psychological factors);[49,54] and its ability to affect other outcomes such as increased social functioning and consumer satisfaction.[45,56]„

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#5 Key Informant	Findings	p. 22 lines 13-18: “potential disadvantage of OPC/CTO implied by the literature is that the optimum length of commitment to ensure desired outcomes remains unclear given that studies were inconsistent on whether extended periods of commitment were necessary to demonstrate a reduction in hospital utilization (whether by readmission or LOS)[58-60,63] and whether treatment maintenance continued after the court order expired.[61,66]„ In terms of advantages to outpatient commitment, a major plus is that patients are maintained in ongoing treatment and monitoring. (Swartz MS, Wilder CM, Swanson JW, Van Dorn RA, Robbins PC, Steadman HJ, Moser LL, Gilbert AR, Monahan J. Assessing outcomes for consumers in New York's assisted outpatient treatment program. Psychiatr Serv. 2010 Oct;61(10):976-81. doi: 10.1176/appi.ps.61.10.976. PubMed PMID: 20889634.) In addition, some evidence suggests lower risks of suicide, perpetration of violence and incarceration (Phelan JC, Sinkewicz M, Castille DM, Huz S, Muenzenmaier K, Link BG. Effectiveness and outcomes of assisted outpatient treatment in New York State. Psychiatr Serv. 2010 Feb;61(2):137-43. doi: 10.1176/appi.ps.61.2.137; Link BG, Epperson MW, Perron BE, Castille DM, Yang LH. Arrest outcomes associated with outpatient commitment in New York State. Psychiatr Serv. 2011 May;62(5):504-8; Gilbert AR, Moser LL, Van Dorn RA, Swanson JW, Wilder CM, Robbins PC, Keator KJ, Steadman HJ, Swartz MS. Reductions in arrest under assisted outpatient treatment in New York. Psychiatr Serv. 2010 Oct;61(10):996-9. doi: 10.1176/appi.ps.61.10.996. PubMed PMID: 20889637.) This is particularly important since individuals who are enrolled in outpatient commitment programs are at particularly high risk for such outcomes due to a history of severe illness, often accompanied by limited insight, past histories of poor adherence and prior risk to self or others. **[continued in next row]**	We re-worded the sentence as follows: “although not strictly a disadvantage, a limitation of OPC/CTO implied by the literature is that the optimum length….” We appreciate the additional citations and agree that they represent important research in the area of OPC. However, these specific studies were not cited, as they did not meet the eligibility criteria for this Technical Brief.

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#5 Key Informant	Findings	p. 22 lines 13-18: In terms of the optimal length of outpatient commitment, it may be more accurate to frame this as a gap in knowledge rather than as a disadvantage of the intervention per se. The fact that the benefits of outpatient commitment may not persist after the intervention is stopped could be viewed as a disadvantage but this same fact would hold true for many interventions (e.g., medication treatments for psychiatric and medical conditions). However, some evidence suggests that longer periods of outpatient commitment are associated with greater medication adherence after outpatient commitment is discontinued (Van Dorn RA, Swanson JW, Swartz MS, Wilder CM, Moser LL, Gilbert AR, Cislo AM, Robbins PC. Continuing medication and hospitalization outcomes after assisted outpatient treatment in New York. Psychiatr Serv. 2010 Oct;61(10):982-7. doi: 10.1176/appi.ps.61.10.982. PubMed PMID: 20889635.)	We appreciate the additional citations and agree that they represent important research in the area of OPC. However, these specific studies were not cited, as they did not meet the eligibility criteria for this Technical Brief.
#5 Key Informant	Findings	Depending upon local resources, increased deployment of resource-intensive ACT teams and OPC programs may lead to reduced service availability for those seeking voluntary treatment or those will less severe mental illness (Swanson JW, Van Dorn RA, Swartz MS, Cislo AM, Wilder CM, Moser LL, Gilbert AR, McGuire TG. Robbing Peter to pay Paul: did New York State's outpatient commitment program crowd out voluntary service recipients? Psychiatr Serv. 2010 Oct;61(10):988-95. doi: 10.1176/appi.ps.61.10.988. PubMed PMID: 20889636.)	We appreciate the additional citations and agree that they represent important research in the area of OPC. However, these specific studies were not cited, as they did not meet the eligibility criteria for this Technical Brief.
#5 Key Informant	Findings	Another disadvantage of outpatient commitment is the view of the patient about the coercive nature of the treatment (Munetz MR, Ritter C, Teller JL, Bonfine N. Mental health court and assisted outpatient treatment: perceived coercion, procedural justice, and program impact. Psychiatr Serv. 2014 Mar 1;65(3):352-8. doi: 10.1176/appi.ps.002642012. PubMed PMID: 24036617.) In some individuals, this can create more animosity towards receiving care or towards those they view as forcing treatment. It can also lead some individuals to leave the jurisdiction to avoid the constraints of outpatient commitment.	We appreciate the additional citations and agree that they represent important research in the area of OPC. However, these specific studies were not cited, as they did not meet the eligibility criteria for this Technical Brief.

Commentator & Affiliation	Section	Comment	Response
#5 Key Informant	Findings	p. 22 lines 26-27: "cost by using a residential crisis program rather than a general hospital to treat an acute episode.[68] One KI noted that partial hospitalization is less expensive than inpatient care and can be used to treat individuals whose hospitalization is driven primarily by housing issues." The statement that partial hospitalization is less expensive than inpatient care is true but the assertion that it can be used for individuals with housing related issues is untrue. In fact, individuals need to have stable housing to return to at night in order to be appropriate for a partial hospital program. (See Medicare definition of partial hospital at: http://www.medicare.gov/coverage/partial-hospitalization-mental-health-care.html). Crisis residence beds or respite beds are used for individuals with mental illness who are experiencing an acute housing related crisis.	We agree and removed the following sentence: "One KI noted that partial hospitalization is less expensive than inpatient care and can be used to treat individuals whose hospitalization is driven primarily by housing issues."
#5 Key Informant	Findings	p. 22 line 39 ff: To augment the anecdotal observations of the KIs, a recent article (Lee S, Rothbard AB, Noll EL. Length of inpatient stay of persons with serious mental illness: effects of hospital and regional characteristics. Psychiatr Serv. 2012 Sep 1;63(9):889-95.) used hierarchical linear modeling on a 2006 sample 45,497 adults with serious mental illness from106 hospitals and found that "Stays were longer at psychiatric hospitals than at general acute care facilities and at hospitals with a greater percentage of Medicare patients and patients with serious mental illness and a higher rate of readmission. In terms of regional characteristics, stays were also longer at hospitals in counties where the county mental health program received a larger percentage of the state's mental health budget and a smaller share of the budget was used for residential care." Masters et al. (Masters GA, Baldessarini RJ, Ongur D, Centorrino F. Factors associated with length of psychiatric hospitalization. Compr Psychiatry. 2014 Apr;55(3):681-7. PubMed PMID: 24387922.) examined records of 589 patients with major psychiatric disorders hospitalized in a university-affiliated, not-for-profit psychiatric hospital, using standard bivariate and multivariate analytical methods and found that longer hospitalization was associated with "more highly supervised aftercare, diagnosis of schizophrenia or schizoaffective>affective disorders, longer illnesses, higher antipsychotic doses and more complex drug-treatments at discharge, lower GAF functional status, unemployment, being unmarried, as well as public vs. private insurance."**[cont in next row]**	We appreciate the suggestion of the reviewer, but these two articles do not meet our eligibility criteria.

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#5 Key Informant	Findings	p. 22 line 39 ff: The longer length of stay for first-episode patients noted by the KIs is consistent with the findings of Valevski et al. (Valevski A, Olfson M, Weizman A, Shiloh R. Risk of readmission in compulsorily and voluntarily admitted patients. Soc Psychiatry Psychiatr Epidemiol. 2007 Nov;42(11):916-22. PubMed PMID: 17712501.), particularly in the subgroup of patients admitted on an involuntary basis. **[continued in next row]**	We appreciate the suggestion of the reviewer, but this article does not meet our eligibility criteria
#5 Key Informant	Findings	It may also be worth looking at the data from the AHRQ Healthcare Cost and Utilization Project (http://hcupnet.ahrq.gov). On a visual inspection of the data (see attached Excel spreadsheet summaries based on publicly available reports downloaded from the website): • LOS for psychiatric diagnoses o seems to be relatively stable over the years from 2007 through 2012 o shows considerable variability across geographic regions o has median LOS that is consistently less than mean LOS suggesting that distributions of the LOS are skewed and that some individuals have a disproportionately long LOS o is longer for individuals with psychotic disorders than for other diagnoses ▪ is longer for those with Medicare and/or Medicaid ▪ is longer for those in metropolitan areas, those admitted to governmental hospitals and those admitted to teaching hospitals • readmission rates for individuals with psychiatric diagnoses o show similar patterns whether looking at rates of readmission for the same diagnosis or for all cause readmissions o are greatest in individuals who ▪ have a diagnosis of a psychotic disorder ▪ are male ▪ live in a metropolitan area ▪ live in lowest income quartile zip code (as	This information is useful, but it does not meet our selection criteria and would, hence, not be included in our Findings literature. We will leave the text as is.

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		compared to a highest income quartile zip code) ▪ have Medicaid and/or Medicare (as compared to private insurance) p. 22 line 39 ff: Since the AHRQ HCUP dataset is available (for a fee), this information could be analyzed in more detail fairly easily to confirm the above conclusions and examine the comparisons statistically.	
#5 Key Informant	Findings	p. 22 line 48-50: "With respect to diagnoses, KIs noted that patients with first episodes of schizophrenia have longer LOS, as do patients admitted with the ICD-9 code corresponding to "other psychosis diagnosis." The latter category often corresponds to patients for whom treatment is complex and challenging, therefore leading to longer LOS. KIs indicated that LOS can vary substantially…" The ICD-9-CM Diagnosis Code 298.9 refers to unspecified psychosis.	We thank the reviewer for this comment and have made this correction.
#5 Key Informant	Findings	p. 23 lines 51-53: "conditions is limited. In the context of transition support services, one KI pointed out that Medicare spending on males in psychiatric hospitals is significantly higher than spending on female patients; how this trend relates to specific transition support services is unclear." Since the meaning of this observation and its connection to transition support services is unclear and since it was only noted by a single KI, this may not be essential to include. (Given the apparent findings of the HCUP data, it may simply be an artifact of longer LOS in men as compared to women).	We have removed this statement from the report and thank the reviewer for this comment.
#5 Key Informant	Findings	p. 24 lines 27-28: "The included literature did not comment on variation in use of partial hospitalization/respite care by patient demographics, diagnosis, and coexisting conditions.[67-69] Because only one…" Again, this sentence seems to confound partial hospitalization and respite care data.	We reviewed the literature and did not find any relevant information on respite care, so we have dropped the reference to respite care.

Commentator & Affiliation	Section	Comment	Response
#5 Key Informant	Findings	p. 24 line 35 ff: As noted in the document, the distinctions between disadvantages and harms is likely to be one of degree. Particularly since there is no good data on harms, per se, it may be clearer to readers to integrate the harm section with the disadvantages (p. 19 line 1 ff), perhaps even titling the section "Advantages and Disadvantages/Harms". At the very least, it would help if the Harms section were moved up in the document so that it came right after the Advantages/Disadvantages section.	We appreciate the reviewer's comment, but we are unable to make changes based on the required structure of a Technical Brief.
#5 Key Informant	Findings	p. 24 lines 43-49: "infections, of longer LOS. KIs noted that in many cases, patients are discharged from psychiatric hospitals as soon as the safety issue prompting admission is stabilized, without providing sufficient longer-term treatment. KIs also pointed out that the implications of different LOS depend on available community resources. For instance, a shorter LOS can be very effective within a well-developed community mental health system but disastrous if used within a poorly developed one." The most significant harm of an overly short LOS is having individuals return to community settings before the safety issue(s) prompting admission are actually stabilized. With the increasing pressure by insurers to reduce LOS and the increasing pressure on hospitals (and thus clinicians) to reduce LOS for financial reasons, individuals are often discharged as soon as they say they are no longer suicidal or no longer experiencing aggressive ideas. Most individuals know "what to say" to be released and simply stating that they are no longer suicidal or homicidal does not mean that these ideas or their risk to self/others has abated.	We agree with the reviewer and thank the reviewer for the comment. We now reference this point in "Other Considerations for Future Research."
#5 Key Informant	Findings	p. 25 Table 6: As noted above, it may be clearer to combine harms with disadvantages and this would hold for the table as well as the text. If the table is included in a distinct harms section, I would suggest revising the listing of the harms. As currently worded, these mix harms with process. For example, the actual harms are ongoing symptoms and functional impairment as well as potential safety risks (to self/others). The underlying rationale is that shorter LOS may not allow sufficient resolution of safety concerns or provide sufficient longer term treatment, particularly when community resources are not well-developed. The harm of forced treatment is mistrust of mental health professionals and reduced willingness to seek help.	The reviewer makes a thoughtful point, but we think the table and text clearly lay out the issues and allow the reader to decide how to interpret the findings. Hence, we will leave both as they are.

Commentator & Affiliation	Section	Comment	Response
#5 Key Informant	Findings	p. 25 lines 28-30: “related to each of the identified alternatives to hospitalization. The OPC/CTO literature included some discussion of the potential ethical concerns of forcing treatment, which could be considered a potential patient harm, if the ends are not thought to justify the means.[61,63] In addition, one…” The statement about potential ethical concerns is not well delineated and the actual harm being produced is unclear. The referenced citations do not seem to shed light on this. Reference 61 (Nakhost et al., 2012) uses the word "ethical" in one place in the paper: "Finally, we did not study ethical concerns of forcing treatment, a worthwhile topic in and of itself." Reference 63 (Swartz et al., 1999) does not use the word "ethical" at all. Another article by the same researchers (Swartz et al., 1997; ref 90), does discuss ethical issues but focuses on the ethical aspects of designing a randomized trial that is assessing involuntary treatment. Only the subsequently cited article by Burns et al. (2013; ref 57) raises the concept of the ethics of restricting liberties "unless accompanied by a rigorous assessment of their potential costs and benefits." Consequently, since the terms "ethical" (or "unethical") can provoke strong feelings (with potential for misinterpretation), it may be preferable to spell out the actual issues in more detail rather than using the phrase "potential ethical concerns" at all. For example, it may be clearer to discuss the challenges and dilemmas of balancing restrictions on individual liberty and providing a less restrictive environment with the potential benefits of longer treatment or assurance that treatment is being received.In any case, this discussion may fit better under advantages/disadvantages than harms, given that a specific harm is difficult to identify.	We agree and reworded the sentence as follows: “The OPC/CTO literature alluded to the challenge of balancing restrictions on individual liberty with the potential benefits of longer treatment (61,63). In this regard, if this equipoise is not achieved one could theoretically, albeit unintentionally, do harm.”
#5 Key Informant	Findings	p. 25 line 56: Many individuals prefer using the term "adherence" rather than "compliance". You may want to consider changing this terminology throughout the document.	We thank the reviewer for the comment. We have modified accordingly.
#5 Key Informant	Findings	p. 27 line 14 (and elsewhere): Most publications, including those specific to emergency medicine, now use the term "emergency department (ED)" rather than "emergency room (ER)".	We thank the reviewer for the comment. We have made this change.

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#5 Key Informant	Findings	p. 27 line 13-17: "Finally, KIs acknowledged that unintentional alternatives to hospitalization such as extended emergency room (ER) stays might be used when psychiatric beds are not available. After a patient has spent several days in the ER, a physician might deem the patient ready for discharge, even when the patient is likely to still be experiencing extended distress. These situations have received national attention and sparked political debate, particularly when the discharged patient commits a highly violent act." The emergency medicine literature provides support for the idea that ED length of stay for psychiatric patients is prolonged due to lack of available psychiatric beds as well as payment related factors (Ding R, McCarthy ML, Desmond JS, Lee JS, Aronsky D, Zeger SL. Characterizing waiting room time, treatment time, and boarding time in the emergency department using quantile regression. Acad Emerg Med. 2010 Aug;17(8):813-23. PubMed PMID: 20670318; Chang G, Weiss A, Kosowsky JM, Orav EJ, Smallwood JA, Rauch SL. Characteristics of adult psychiatric patients with stays of 24 hours or more in the emergency department. Psychiatr Serv. 2012 Mar;63(3):283-6. PubMed PMID: 22267250; Fee C, Burstin H, Maselli JH, Hsia RY. Association of emergency department length of stay with safety-net status. JAMA. 2012 Feb 1;307(5):476-82. PubMed PMID: 22298679; Weiss AP, Chang G, Rauch SL, Smallwood JA, Schechter M, Kosowsky J, Hazen E, Haimovici F, Gitlin DF, Finn CT, Orav EJ. Patient- and practice-related determinants of emergency department length of stay for patients with psychiatric illness. Ann Emerg Med. 2012 Aug;60(2):162-71. PubMed PMID: 22555337; Stephens RJ, White SE, Cudnik M, Patterson ES. Factors associated with longer length of stay for mental health emergency department patients. J Emerg Med. 2014 Oct;47(4):412-9. PubMed PMID: 25074781).	We thank the reviewer for the comment. We have added a statement after the first cited sentence about the increased length of stay for psychiatric patients.
#5 Key Informant	Findings	p. 27 line 37 ff: When examining measures such as readmissions and emergency visits, it is important to track and compare data using both medians and means (at the very least). Using 10 and 90 percentile thresholds may also be useful. In other assessments of health care utilization, it is clear that a small proportion of the population uses a disproportionate amount of the resources. Interventions could lead to a statistically and clinically significant improvement for large numbers of individuals without affecting the small group of highest service utilizers. On the other hand, an intervention could have a sizeable impact for the	We thank the reviewer for these excellent considerations. We have included a summary of these points as a final paragraph of the section "Reliability and Validity of Psychiatric Readmissions Data."

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		highest utilizers but less of an affect for those with moderate to small amounts of service use. Both outcomes could be important ones to identify and could ultimately help in targeting interventions to those who are most likely to benefit from them.	
#5 Key Informant	Findings	p. 28 lines 36-39: "Greater efficiencies in outpatient care and community services may place less strain on the mental health care system and ultimately optimize inpatient care. No identified studies directly tested the effect of training, certification, staffing, and resources to improve on management strategies used to prevent psychiatric readmission. Studies suggest that inadequate training may…" The connection between outpatient/community service efficiencies and optimization of inpatient care is not clear from the sentence as worded. Increasing the efficiency of the system also seems distinct from issues of training/certification, treatment fidelity, staffing type, staffing ratios, and availability of other resources specific to the intervention or specific to patient needs (e.g., housing, insurance, transportation). Enhancing efficiencies of outpatient and community services is also crucial and may warrant additional emphasis. For example, case managers cannot coordinate care easily if there are substantial administrative burdens to applying for Medicaid or supported housing or if outpatient followup providers are able to require lengthy review of referrals and then reject the most complex and seriously ill individuals. Gaps may occur in treatment or medication adherence if insurers require substantial hurdles for pre-authorization or if their lists of participating providers are inaccurate, with few providers who are accepting new patients.	We thank the reviewer for the comment. These are excellent points. We have reorganized this section with the issues highlighted and summarized in the text.
#5 Key Informant	Findings	p. 28 lines 36-39: "Evidence Map: Current Evidence about the Effectiveness of These Management Strategies (GQ 3)" The organization of this section seems different from the organization of the preceding sections that describe GQ1 and GQ2. Whereas the other sections have a Discussion of the intervention that begins with a (labelled) summary of Key Findings, this section focusses immediately on the Evidence Map. This may be appropriate given the different methodologies used in these sections.	These are thoughtful suggestions. However, the primary purpose of a Technical Brief is to provide this Evidence Map, and the organization followed (whereby we summarize within strategies rather than across them) follows the Technical Brief format, so

Commentator & Affiliation	Section	Comment	Response
		Also, the organization of the report (by guiding question and then management strategies within each guiding question) makes it harder for the reader to synthesize the key information about each management strategy. Although it would mean a lot of cutting and pasting, it would likely be easier for readers to follow if organized by management strategy and then by guiding question under each strategy. Alternatively, each management strategy section could have a brief overview, then description of the available evidence and evidence map, then discussion of context and variations in management strategy use, then advantages and disadvantages/harms for each strategy. (Information on difficulties in interpreting readmission data is overarching and would probably need its own section towards the beginning of the document.) The summary/implications/gaps/next steps already synthesize and integrate the findings across management strategies.	we will keep the section as is.
#5 Key Informant	Findings	p. 28 lines 36-39: "The evidence map in Table 7 graphically represents the universe of available studies that address the three primary readmission outcomes in GQ 3. The evidence base includes RCTs,…" Table 7 provides a good overview of the evidence but from a conceptual standpoint, it seems to be neither a map nor a graphical representation. I would have assumed that a "map" of the evidence would be in a tree/node format rather than a table format. The table does an excellent job of showing the types of evidence available on each topic, but calling it a "map" and a "graphical representation" seems confusing.	We have provided this evidence map per AHRQ instructions (which indicate that an evidence map shows the type of evidence available), so we will leave as is.
#5 Key Informant	Findings	p. 33 line 38 ff: In discussing the detailed evidence, some studies are described as using LOS as an outcome measure. It would be important (if possible) to distinguish between studies that looked at LOS per hospitalization and total number of hospital days (across all hospital admissions during the study period). The latter metric is typically used in studies of interventions with patients who have serious mental illness and is conceptually a bit different than when LOS is used to describe the duration of a single hospitalization.	This point is a good one, but it is not possible to confirm this point with the available evidence.
#5 Key Informant	Findings	p. 35 lines 54-55: "One RCT[43] compared peer-mentor support plus usual care from those who were themselves in recovery from a mental illness versus usual care (Table E-4). Outcomes included numbers of readmissions and LOS. Secondary outcomes included measures of clinical engagement. Those…"	We agree and modified the text as suggested.

Commentator & Affiliation	Section	Comment	Response
		The current text is somewhat confusing as written. The RCT compared usual care to usual care plus support from a peer-mentor who was in recovery from a mental illness. As written, the text may imply that the usual care was also delivered by someone in recovery from a mental illness.	
#5 Key Informant	Findings	p. 37 lines 9-15: "Involuntary outpatient commitment (OPC), as it is known in the United States, and CTO, as it is known in the United Kingdom, Canada, New Zealand, and Australia, are based on the principle that people with severe mental disorders who are at risk of becoming dangerous or gravely disabled without treatment and reluctant or unable to follow through with community-based treatment, can be required to engage in outpatient treatment as the less restrictive alternative to inpatient hospitalization." This sentence is a bit confusing to read as written. A possible modification is as follows: Involuntary outpatient commitment (OPC), as it is known in the United States, and CTO, as it is known in the United Kingdom, Canada, New Zealand, and Australia, are based on the principle that people with severe mental disorders can be required to engage in outpatient treatment if they are at risk of becoming dangerous or gravely disabled without treatment and they are reluctant or unable to follow through with community-based treatment on their own. Under such circumstances, OPC/CTO is viewed as a less restrictive alternative to inpatient hospitalization.	We agree and have changed the text as suggested.
#1 Public Reviewer (Carrie Snider of Angels Confidential LLC)	Findings	Finding many barriers along the way. Discrimination a common occurence. Local governments seemingly control an interplay where they see fit. Suggestion of mandatory reporting simplifying complaint processes and multiple follow up care to ensure patient well-being.	We appreciate the reviewer's observations on this point.
#1 Peer Reviewer	Summary and Implications	I think that until the framework is cleaned up and simplified the analysis will continue to be blurry. I would not follow all of the GQs as the organizing framework, as it makes the report un-necessarily repetitive (just like my review) because there are too many categories in which it becomes necessary to repeat. Overall I do not really find fault with most of the analysis and summary, although they DO tend to focus only on ACT. My read of the report suggests that other strategies hold some promise, but have not been studied sufficiently.	We appreciate the reviewer's comments, but given the structure and scope of a Technical Brief, we will keep as is.

Commentator & Affiliation	Section	Comment	Response
#2 Peer Reviewer	Summary and Implications	The implications of a lack of evidence is not credible given the missing studies, missing interventions, and poor clinical framework.	We acknowledge the opinions of the reviewer. However, the involved studies were those that met our eligibility criteria, and the structure and scope for this report follow the organization for a Technical Brief, so we will keep as is.
#1 Key Informant	Summary and Implications	The only intervention that is somewhat adequately studied is a assertive community treatment (ACT) as an alternative to hospitalization and as a key ingredient for the prevention of rehospitalization. The other strategies require better definition and consistent implementation.	We agree, and we believe the summary makes this point sufficiently.
#2 Key Informant	Summary and Implications	I thought these sections were fair and complete, well-done and helpful. It was important that the authors reminded the reader upfront about the limitations of the review; perhaps that should be in bold.	We agree, and we have italicized that point in the second sentence of "Summary and Implications."
#3 Key Informant	Summary and Implications	The summary and implications sections were well written, though a bit scant for the many implications for research, practice and policy. Might be good to describe implications for different audiences.	We thank the reviewer for the comment. We have added text to the section on "Other Considerations for Future Research," which addresses this point.
#4 Key Informant	Summary and Implications	The summary and implications section of the Brief is very strong and provides a blueprint for further study. The statement in the Summary and Implications section that says "…despite substantial effort to research this area, important gaps in the evidence base remain" is extremely significant. The report identified clear and significant gaps in evidence and the need for further research. It demonstrates that the evidence does not currently exist on which to build public policy or reimbursement models. Other significant factors include the interventions that are within the control of the hospital during the index admission. While it is very important for the hospital to develop a discharge plan with the patient, the resources available within the community and the patient's financial ability and motivation to access the services are not generally within the control of the hospital.	We thank the reviewer for the comment. We have added the point about psychiatric admission sometimes being the correct outcomes in our second Next Step.

Commentator & Affiliation	Section	Comment	Response
		Unlike certain medical/surgical conditions that stem from hospitalization (e.g., surgical infections) and may require readmission, psychiatric readmissions cannot so clearly be traced to factors within the hospitalization. In addition, as noted by some of the key informants, readmission to a psychiatric hospital may not necessarily be something to be avoided and may be justified because of the severity of a patient's chronic and recurrent illnesses.	
#5 Key Informant	Summary and Implications	p. 38 lines 32-36: "At the same time, the amount of relevant literature identified by this focused search—46 studies reported in 54 studies for GQ 3 alone, with the most data for ACT, CTO/OPC, and ICM—was surprisingly large, suggesting that despite a substantial effort to research this area, important gaps in the evidence base remain." This sentence seems to mix several concepts, which makes it confusing to read. The key point seems to be that the relevant literature was surprising large, but the concept that important gaps in the evidence base remain does not seem to flow directly from the amount of available literature. Since the gaps in the evidence are described in more detail elsewhere, it may be better to delete this portion of the sentence here. (e.g., "At the same time, there has been a substantial effort to research this area as the amount of relevant literature identified by this focused search was surprisingly large — 46 studies reported in 54 studies for GQ 3 alone, with the most data for ACT, CTO/OPC, and ICM.")	We agree with the reviewer and have reworded as suggested: "At the same time, there has been a substantial effort to research this area as the amount of relevant literature identified by this focused search was surprisingly large — 46 studies reported in 54 studies for GQ 3 alone, with the most data for ACT, CTO/OPC, and ICM."

Commentator & Affiliation	Section	Comment	Response
#5 Key Informant	Summary and Implications	p. 38 lines 41-48: "Ethical concerns can serve as a barrier to successful use. Several CTO studies raised concerns about the varying beliefs, both among providers and mental health consumers, as to when and if an infringement of civil rights is justified[57,61,63,90] and whether the benefit (in terms of number of decreased hospital LOS) is substantial enough to restrict someone's civil rights for an extended period in the community.[60] Of note, we found no articles directly addressing privacy issues, and KIs did not stress this as a theme." See comments in reference to p. 25 lines 28-30 on the topic of ethical issues. The wording of this particular paragraph may benefit from modifications to make the text more neutral. Since the overarching theme is diffusion of strategies, the initial sentence may be better framed as "Ethical considerations may influence the frequency of use of CTO/OPC." In the cited references, several did not raise specific concerns about CTO/OPC per se (vs. studies of CTO/OPC). The paper that did express concerns included this in the discussion. Thus, it may not be accurate to say that the studies themselves raised concerns. Although this technical brief focused on the impact of CTO/OPC on rates of readmission and numbers of hospital days, there have been other benefits of CTO/OPC noted in the literature (including, but not limited to, significantly lower overall mortality rates; Kisely S, Preston N, Xiao J, Lawrence D, Louise S, Crowe E. Reducing all-cause mortality among patients with psychiatric disorders: a populationbased study. CMAJ. 2013 Jan 8;185(1):E50-6. PubMed PMID: 23148054). For the purposes of this paragraph, it may be sufficient to note that "There are varying beliefs, both among providers and mental health consumers, as to when and if the benefits of CTO/OPC are substantial enough to restrict an individual's civil liberties by compelling treatment, perhaps for extended periods in the community."	We agree with the reviewer's comments and have changed the sentence as suggested to: "Ethical considerations may influence the frequency of use of CTO/OPC. Mental health consumers and providers of services hold varying beliefs as to when and if the benefits of CTO/OPC are substantial enough to restrict an individual's civil liberties by compelling treatment, perhaps for extended periods in the community.(references cited) Of note, we found no articles directly addressing privacy issues, and KIs did not stress this as a theme."
#5 Key Informant	Summary and Implications	p. 38 lines 54-55: "available across the United States or internationally. In the United States, only one insurer, Medicaid,[91] typically pays for the intervention. Further, varying laws can limit how certain…" In terms of the statement that only one insurer (Medicaid) in the US pays for ACT, it is not clear what the impact will be from the increasing shift from conventional Medicaid plans to managed Medicaid programs, typically administered by the same insurers who currently do not cover ACT for privately insured individuals.	We agree with the reviewer's comments and have added to the existing sentence as follows: "In the United States, only one insurer, Medicaid,[91] typically pays for the intervention and the

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			potential impact of the increasing shift from conventional Medicaid plans to managed Medicaid programs is unknown."
#5 Key Informant	Summary and Implications	p. 39 line 16 ff: In discussing costs, a related but separate issue is the willingness (or lack thereof) for insurers and other payers (e.g., public psychiatry programs) to fund the types of interventions that are described in this technical brief. (Refusing to pay for any services will always be cheaper than paying for some services.) As with many interventions aimed at affecting the overall costs of health care delivery, the payer for services does not always reap the short or long-term cost savings of the intervention and may actually have to bear greater costs. If inpatient coverage is "carved out" separately from outpatient coverage or if psychiatric coverage is "carved out" of medical/surgical coverage, cost savings on inpatient care or physical health benefits may not offset the costs to those delivering the intervention (e.g., ACT, ICM) on an outpatient basis.	This is a thoughtful point by the reviewer, but it was not identified by literature search or KI input, so we will not include.
#5 Key Informant	Summary and Implications	p. 39 lines 21-23: "risk limiting proper psychiatric admissions. The literature[30,60] and KIs suggested that financial incentives are more likely to compete with ethical concerns when prospective payment systems are in place. Each noted that, from a clinical perspective, readmission is not necessarily…" It may be appropriate to move this comment on ethical considerations to the section on the prior page. Although the concepts of ethics and cost-containment certainly overlap, it is a significant enough problem that it may deserve mention in both sections. In this particular context, the providers in a prospective payment model, the ethical principles in question are beneficence and non- maleficence – making clinical decisions that will provide one's patients with benefit and not with harm. Admission can be harmful rather than beneficial, particularly if not indicated, but discharge can similarly be harmful rather than beneficial, particularly if appropriate outpatient treatment is unavailable and the patient or others are placed at risk. The challenge is that there is no gold standard that can be applied to determine when a decision was actually correct, particularly since bad outcome can occur even with otherwise correct decisions.	We appreciate the reviewer's suggestions. The ethics issue had been identified as a potential issue in diffusion by the literature, so we will keep in the current section. The ethics/legality concern is currently mentioned in the "Costs" section.

Commentator & Affiliation	Section	Comment	Response
		Financial considerations can also create ethical concerns in other payment models. As physicians are increasingly hospital employees (with salaries +/- incentive plans for RVU and LOS metrics and with fairly short term contracts), pressures on hospitals to reduce LOS are passed on to clinicians through hospital administrators, with personal financial and job security considerations, even in public- and academic-centers.	
#5 Key Informant	Summary and Implications	p. 39 lines 44-48: "insurance systems rather than on the patient's readiness for discharge. In other words, as soon as a psychiatrically hospitalized person is no longer considered an imminent risk to self or others, he or she is discharged, whether or not there is evidence that the individual can live successfully in the community. One KI suggested that a historical analysis of how postdischarge suicide rates…" See comments relating to p. 24 line 43-49: The most significant harm of an overly short LOS is having individuals return to community settings before the safety issue(s) prompting admission are actually stabilized. With the increasing pressure by insurers to reduce LOS and the increasing pressure on hospitals (and thus clinicians) to reduce LOS for financial reasons, individuals are often discharged as soon as they say they are no longer suicidal or no longer experiencing aggressive ideas. Most individuals know "what to say" to be released and simply stating that they are no longer suicidal or homicidal does not mean that these ideas or their risk to self/others has abated.	This is a thoughtful point by the reviewer, but it was not identified by literature search or KI input, so we will keep the text as is.
#5 Key Informant	Summary and Implications	p. 40 ff: In terms of gaps in the evidence base, one gap is in determining which individuals actually are at highest risk of readmission so that interventions can be targeted to these patients appropriately. While multiple prior admissions is one risk factor, the other risk factors are unclear and inconsistent in the literature. Another consideration for future research relates to other interventions that were not reviewed in this technical brief but could be studied further. For example, interventions to promote adherence with medications or outpatient treatment are worth studying in terms of their effect on hospital readmissions, particularly given the emphasis on reducing readmissions in CMS payment policies and in state-based Delivery System Reform Incentive Payment (DSRIP) Programs.	This is a thoughtful point by the reviewer, but it was not identified by literature search or KI input, so we will keep the text as is.

Commentator & Affiliation	Section	Comment	Response
		The increasing use of technological advances (discussed on p. 27 line 21 ff) is another area that should be mentioned in terms of further research on readmission reduction. Research is crucial to examine the effectiveness of telepsychiatry, self-monitoring, and other forms of electronic data collection to guide effective treatment. As with most of the interventions discussed in this report, payment models for telepsychiatry and electronic monitoring also need investigation as payment is a current impediment to broader use of these techniques.	
#5 Key Informant	Summary and Implications	p. 41 lines 11-16: "Selecting a meaningful and accurate outcome is critical. Of the primary outcomes we considered for this brief, LOS in a hospital appears to more consistently identify an effective management strategy compared with standard care. Furthermore, LOS appears more meaningful than the number of readmissions or readmission rate, because for seriously mentally ill patients with a persistent and recurrent illness, in some cases hospitalization is a good outcome. As with…" LOS or number of total days hospitalized has many weaknesses as an outcome measure as well. The national data on variations in LOS (from the AHRQ HCUP data) suggests that there are a sizeable number of variables that influence LOS apart from the effects of any intervention. These would, at the very least, be confounding factors and would requires sufficiently large samples in any study in order to control for these confounds. As noted above, LOS can also be influenced by pressures on clinicians (e.g., by insurers, hospital administrators) and by national trends (in psychiatry and in medical/surgical services) to discharge patients "quicker and sicker". LOS and readmissions are readily available from administrative databases, however, and this makes them easier to track than patient-specific metrics such as symptom improvement, functional status, and perceived quality of life. For severely ill populations, such as those that are the focus of this review, consideration of physical health comorbidity and mortality (all cause and suicide specific) are important metrics given the high risk for suicide and the shortened lifespan of individuals with serious mental illness due to physical comorbidities. Such measures are also of great importance to individuals as compared to LOS and readmissions, which do have an impact on individuals but which are primary concerns for insurers and health policy planners.	This is a thoughtful point by the reviewer, but it was not identified by literature search or KI input, so we will keep the text as is.

Commentator & Affiliation	Section	Comment	Response
#6 Key Informant	Summary and Implications	See below. [This will be a very difficult and complex issue to manage but this is a very informative document with clear next steps. Implications in the provider field will be difficult to determine and hard to quantify given the variability of available services around the country.]	We thank the reviewer for the comment.
#2 Peer Reviewer	Next Steps	The review should be done including additional interventions, using more robust literature searching technique, and with a more appropriate clinical framework.	We acknowledge the reviewer's observations, but this report follows the proper methods and scope for a Technical Brief, so we will keep as is.
#1 Key Informant	Next Steps	I agree very much that an important next step should include a conference including patients, families, clinicians, researchers, and payers to determine what would be the most meaningful outcomes to study and how that would fit within a theoretical model of how interventions to prevent hospitalization lower lengths of stay and reduce readmissions might take place.	We thank the reviewer for the comment.
#2 Key Informant	Next Steps	Is this section complete enough? The authors led me to imagine that a next step might be to analyze some of the management strategies more systematically to see whether they are structurally effective. They note that only ACT has attempted to describe the components of an effective intervention, but it is a little unclear as to whether the authors conclude that the components, if implemented with fidelity, appear to be successful in responding to the questions. Would they have any suggestions as to which components of other interventions (or which by themselves) appear to show promise?	We appreciate the reviewer's perspective. The purpose of the Technical Brief is to map the available evidence, and the report does so, so we will keep as is.
#3 Key Informant	Next Steps	Implications section is well-written, if a bit brief. I wonder if it might be helpful to expand upon the first item, as it could reflect the need for new approaches to rehospitalization, as well as greater understanding of the existing ones. It might also be useful to distinguish between development and testing of components and their implication in a range of settings, although this is briefly hinted at in point 3. Might be good to expand a bit more to offer examples of D&I strategies that could be tested to exemplify what the authors mean by that third step.	We appreciate the suggestions. The Implications section provides suggestions consistent with the scope of a Technical Brief.

Commentator & Affiliation	Section	Comment	Response
#4 Key Informant	Next Steps	I think it is important to include interventions the hospital can do to influence readmissions. While very strong, the recommendations for next steps involve study of the post-discharge period. It is hospitals that will be benchmarked and financially disadvantaged based on readmission rates. The variables need to be within their control. Length of stay is a prime factor for further study. Many factors within the marketplace have made LOS ever-shorter with very little study of its effect on community tenure.	These are useful suggestions. However, the purpose of a Technical Brief is not to provide guidance for intervention but rather to identify key next questions to answer. The current report does that, so we will keep as is.
#6 Key Informant	Next Steps	No additional comments. This will be a very difficult and complex issue to manage but this is a very informative document with clear next steps. Implications in the provider field will be difficult to determine and hard to quantify given the variability of available services around the country.	We thank the reviewer for the comment.
#1 Public Reviewer (Carrie Snider of Angels Confidential LLC)	Next Steps	Hold professionals accountable to HIPPA. Train all employees within local affiliated government agencies of their policies and prescribe a diligent conservative approach upon documentation. Make known a sense of personal liability or job jeopardy if they are unable to adhere to such principles set forth in already existing codes. Resolutions should be available when information presented to courts is slanderous or not in good faith. Interim assistance should effectively correct a potential financial need when eligible persons are destitute without it . What more with Ways and Means Committee can we bring to begin to understand. Let there be a means to an end.	We appreciate the reviewer's perspective.
#1 Peer Reviewer	Clarity and Usability	The document is organized by the Guiding Questions and I found that a poor way to organize the report. It produces much too much repetition. The whole report could be much more direct and much simpler. As noted, above, I think that there is a simpler and clearer conceptual framework for the project, which, if followed, would simplify the report presentation.	This point is useful, but the organization of the report has been made in consultation with AHRQ.
#2 Peer Reviewer	Clarity and Usability	No. I do not think the report presents points clearly or that it is useful in future research.	We appreciate the reviewer's opinion.
#3 Peer Reviewer	Clarity and Usability	well organized main points clearly presented conclusions will help research of a broad and difficult topic.	We thank the reviewer for the comment.

Commentator & Affiliation	Section	Comment	Response
#1 Key Informant	Clarity and Usability	This is clearly written and organized, and I believe the conclusions will be quite helpful in the design of future research.	We thank the reviewer for the comment.
#2 Key Informant	Clarity and Usability	The report is a little difficult to follow sometimes. The challenge is that there is so little definitive literature that fits easily into the question areas that were identified, so the discussion sometimes seems forced. And the structure of the discussion from the start (even with the KI groups) wasn't terribly easy to bring out all the key points (though I don't know of one that would have been better - there's just a lot to cover here, and yet in a somewhat tightly bound way. But (except for the few questions I raised) the main points are presented clearly, and I do believe that the conclusions will inform future research.	We thank the reviewer for the comment.
#3 Key Informant	Clarity and Usability	The report is well structured and organized, with key points laid out in an accessible manner.	We thank the reviewer for the comment.
#4 Key Informant	Clarity and Usability	The report if well structured and organized. It is an important contribution to the field. It makes it clear that current research does not support a direction for establishment of guidelines to reduce psychiatric readmissions. Conclusions can be used for much needed further research. Again, I would recommend that conclusions include factors within the control of the hospital.	Thank you for the thoughtful suggestion. We have added a sentence in #3 in "Next Steps" to indicate that "Key considerations for this research include what factors are under the control of the specific setting, e.g., a hospital."
#6 Key Informant	Clarity and Usability	I believe the document is well organized and focused on the key issues.	We thank the reviewer for the comment.
#1 Public Reviewer (Carrie Snider of Angels Confidential LLC)	References	Personal stories of many who share common struggles. Homeless people are likely among the majority.	We thank the reviewer for the comment.
#1 Public Reviewer (Carrie Snider of Angels Confidential LLC)	Tables	Not available through me but have seen many and it's a crying shame homeless statistics alone.	We appreciate the reviewer's perspective