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Advancing recovery: implementing evidence-based treatment for substance use disorders at the systems level.

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Schmidt L.A., Rieckmann T., Abraham A. et al. Journal of Studies on Alcohol and Drugs: 2012, 73(3), p. 413– 422.

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In the US homeland of competition and private health care, it was cooperation and coordination which led to the introduction of new medications and innovations to promote continuing care – plus the exercise of regulatory and financial muscle and the salutary experience of senior staff who placed themselves in the patient's shoes.

Summary The study addressed what many believe is the key issue in advancing evidence-based practice – not establishing what those practices are, but how to get them implemented in the 'real world' by commissioners and services. It did so in what in US terms the researchers saw as a best-case scenario. The implication is that if implementation proved near impossible in these circumstances, it would be even more so without the support offered by the research project and in less promising jurisdictions.

The commissioners in this case and the main players were US single state agencies. These coordinate substance abuse services in states and territories, in particular for clients who cannot fund their own treatment. Most purchase services from communitybased systems of care and exercise added influence via licensing and credentialing regulations applied even to fee-charging private centres.

The project evaluated by the featured study started with an invitation to single state agencies to partner with local treatment centres to test one or two strategies for promoting adoption of science-based treatments selected from a national short list. A competitive application process resulted in 12 jurisdictions joining the project, each partnered by (generally) three or four treatment services, with the ultimate goal of system-wide adoption. All but one jurisdiction had little prior experience of implementing the targeted practices.

The practices they chose were acamprosate and naltrexone for alcohol problems and buprenorphine for opiate addiction, and psychosocial approaches to promoting continuing care or aftercare on an outpatient basis following more intensive, residential or specialist care.

To promote adoption of such practices the project identified five change 'levers':

1 Financing analysis reviewing budgets, costs, and reimbursement mechanisms at the systems level. Adopting new therapies entails costs for technology, training, supervision, and productivity losses during training. Understanding where these costs lie helps government officials advocate for funding and changes in payment arrangements that incentivize new treatment modalities.

2 Regulatory and policy analysis of regulations and accreditation rules which govern practitioner qualifications and the operation of treatment services.

3 Inter-organisational relationship analysis to assess roles and relationships among stakeholders, the system's structure, and how such relations can be changed or used to maximally support innovation.

4 Operations analysis to identify service delivery problems and makes changes to the clinical process.

5 Customer analysis drawing on patient experiences of the care process as a crucial tool for identifying ways to improve it.

The adoption process was aided by national learning sessions and expert coaching provided by the research project, offering participating sites opportunities for face-to-face collaboration and technical assistance. How far this worked was assessed mainly through data collected by participating sites on the total number of patients newly admitted to (or discharged from) treatment who were prescribed the targeted medications or received continuing care of the kind being promoted at that site. The adoption process – the working of these levers – was described by drawing on interviews and focus groups with staff six, 12, and 18 months after baseline, related documentation, and research field notes taken during project planning, coaching calls, and other events.

Main findings

Adoption rates

Most but not all sites reported some success as measured by the number of newly admitted or discharged patients treated with the targeted approaches.

Five states aimed to promote medication-assisted treatments for alcohol or opioid use disorders. Maine experienced rapid and sustained success in promoting buprenorphine for opioid dependence, numbers rising from 20 patients a quarter to over 80. In respect of the same treatment, in West Virginia numbers rose slowly from 57 to 76, while in Dallas physicians were reluctant to prescribe buprenorphine for under 30-year-olds and lack of public health insurance coverage inhibited implementation. Missouri promoted naltrexone and acamprosate for alcohol dependence – after a slow start, prescribed by the end of year one by all participating clinics. Donated extended-release naltrexone from the manufacturer stimulated its use for alcohol dependence in Colorado, but subsequent shortages led numbers to decline.

Though varied, the six continuing care initiatives all addressed transitions in care

facilitated by face-to-face or telephone counselling. In Alabama, from 30% of adolescents entering outpatient care following a stay at two residential treatment centres, the proportion rose to 65% in the sixth quarter. Baltimore aimed to transfer stabilised buprenorphine patients from drug treatment centres to health centres; during the first year the proportion doubled, freeing more slots for buprenorphine patients, as evidenced by numbers rising from 315 during the fourth quarter to 451 by the sixth. Steady progress in Colorado on continuity between detoxification and outpatient care was facilitated by financial incentives for the receiving programmes. Kentucky successfully addressed the same issue but in a rural community and via patient video presentations, 'navigators', and case managers. Because of its large rural areas, Arkansas implemented telephone-based continuing care for adults discharged from residential care. The number of patients served nearly doubled over the first year but then declined due to staff turnover. Rhode Island also struggled to implement telephone-based continuing care for adults were reluctant to comply and counsellors sceptical of the value of a telephone intervention.

The change process

To **finance** the innovations sites generally sought new money. but this was forthcoming only in Maine and Baltimore. Maine's legislature allocated \$500,000 to purchase medications and its public health insurance office added buprenorphine to its pharmaceutical formulary, successes which seemed attributable to close relationships and trust between the single state agency and other decision-makers in the small state bureaucracy.

When such efforts failed, most partnerships defaulted to reallocating existing funds and/ or to increasing flexibility in contractual arrangements for paying treatment services. Rhode Island converted some of its outpatient slots into slots for continuing care management, amended provider contracts to permit these new expenditures, and approved a new billing code. Missouri also restructured existing contracts and allowed treatment centres to purchase physician time and medications. Notably, this step took on its own momentum; after it was shown that alcohol medications reduced treatment readmissions and improved outcomes, Missouri's Department of Corrections allocated \$500,000 for medications for offenders on probation and parole.

Regulatory and policy changes were among the most common and successful levers, often in tandem with financing changes. Missouri and Maine changed certification standards to require centres to have staff physicians, meaning they now had access to a prescriber, a requirement later embedded in contracts. Several single state agencies arrived at complementary licensing and contract changes after alternatives had failed. Maine, for example, initially encountered opposition to medications from some 12-step-oriented counsellors. Education and feedback sessions to negotiate a compromise failed, so government officials turned to licensing and contract requirements, effectively to force change on services which wished to stay in business.

Advancing Recovery partnerships actively brokered **inter-organisational** relationships with other state agencies and supported quality improvement collaborations that brought stakeholder groups together to support clinical innovation. A general theme was the importance of the single state agency's place in the state bureaucracy. Small governments seemed to facilitate autonomy and trust, while complications arose in more

complex bureaucracies where authority was fragmented across multiple, loosely coupled divisions. West Virginia illustrated the challenges when its licensing authority ordered the closure of an "unlicensed" buprenorphine programme at the largest treatment centre. The single state agency intervened and eventually convinced officials that the programme was legal and the matter was resolved, but only after uncertainty and turmoil.

Understanding the inter-organisational layout had benefits for building stronger coalitions and regional provider networks which, among other things, could offer periodic training and technical assistance on evidence-based practices. For example, the Texas single state agency supported training on motivational interviewing so Dallas providers could encourage opioid-dependent patients to use buprenorphine, stronger ties among Alabama treatment services facilitated transfer of adolescents from residential to outpatient services, and Baltimore transferred buprenorphine patients to federally qualified health centres, increasing capacity for treating opioid dependence and facilitating integration with primary care.

In **operations analyses** a key tactic was the 'walkthrough'. Senior staff pretended to be patients and experienced the process of being admitted and treated from the patient's point of view, helping identify and address inefficiencies related to patient flow and administrative procedures such as scheduling, billing, charting, and patient follow-up. Flow charts mapping the process of implementing medication-assisted treatment enabled the Missouri partnership to identify ways to increase the use of medications, including a more private and confidential setting for intakes, a new billing code, and training staff on the use of medications. Missouri's single state agency then developed policies to support the suggested changes, adding billing codes, issuing treatment guidelines, changing contracts to permit purchase of medications, and setting up a central medication purchasing capacity, all of which required buy-in from state officials at higher levels of government.

Sites also embraced the concept of piloting changes in care, for example, fine-tuning new procedures with one counsellor who then becomes an advocate for the rolling this out to their colleagues, rather than immediate across-the-board implementation.

Customer analysis encouraged treatment services to understand the experience of their patients as 'customers'. Walkthroughs again were important. Such analyses in West Virginia revealed that buprenorphine patients were not welcomed at 12-step meetings, so the partnership developed alternative support groups. The concept spread state-wide and the groups built a more active consumer constituency. During the legal crisis that threatened closure of buprenorphine services, this proved instrumental in preserving services.

The authors' conclusions

The study showed that partnerships in diverse treatment systems could achieve meaningful gains in the adoption of medications and continuing care, although the number of new patients served by some sites remained small. Though some changes were imposed 'from above' by policymakers, and others started 'from below' with providers piloting new approaches, the greatest successes emerged largely due to coordination of efforts between policymakers and providers.

The process of implementing change could be characterised as trial-and-error adaptation

and incremental learning as sites attempted to overcome barriers. No partnership achieved success through a single formula or discrete policy change; no single tool worked equally well everywhere and for each innovation. It might be assumed that reforms in health care systems unfold in discrete stages: policy development, government debate, a new law, and ultimately implementation. These observations suggest this process is far less tidy and linear. For example, when new funding could not be generated, some partnerships found there were still ways to pull financing levers by reallocation and/or payment incentives, bolstered by regulatory changes. The implication is that implementing new treatments requires a flexible menu of tools that can accommodate the specific treatment modalities and the contours of the existing treatment system.

Barriers to clinical innovation were substantial across all levels of treatment systems, including lack of special funding, no insurance coverage, limited single state agency regulatory powers, complexity and fragmentation within state bureaucracies, provider resistance, staff turnover and lack of training, limited treatment slots, weak data systems for tracking change, communication problems, and coordinating change in large states and dispersed rural areas.

The nature of the new treatments also determined which implementation strategies were needed and most useful. Medication-assisted therapies were most readily adopted, mainly through regulatory, financing and contracting tools, which overcame philosophical resistance among some staff by requiring patient access to medications. In contrast, implementing continuing care was more complex and involved coordinating fragmented systems through inter-organisational and operational analyses that forged stronger provider networks and identified gaps in the continuum of care. Limited availability of treatment slots could obstruct these efforts, as did staff turnover requiring retraining. In Rhode Island, for example, counsellors and patients often saw outpatient discharge as the end of care and were reluctant to make telephone calls and participate in continuing care. These struggles illustrate the need for building consensus in which both practitioners and patients embraced the value of the service.

Successful systems change arose from a cooperative division of labour between policymakers and treatment services. Single state agency officials were usually best placed to undertake financial, regulatory and inter-organisational analyses, while services could exploit operations and customer impact analyses. The most successful partnerships involved coordinated and complementary changes across multiple levels of the system all at once, nowhere better illustrated than in Missouri.

It should be remembered, however, that the partnerships in this study were selected through competitive applications and provided with added funding and technical assistance to support their change efforts – a best-case scenario of what can be achieved. Although meaningful change can be achieved without these supports, it is likely to be slower and even more incremental.

FINDINGS These best-case scenario attempts resulted in major advances but also slow progress, reversals and resistance. In the end, the exercise of power in the form of regulation, policy change, and financial incentives/threats were often needed.

The featured study was included in a review by US authors of ways to improve performance of substance use disorder treatment systems. Along with its predecessor,

the Advancing Recovery project was the main example of attempts to foster better treatment by improving managerial capacity and business practices. The review acknowledged the gains made in the treatment process but cautioned that these processes had yet to be shown to improve long-term patient outcomes. As the evidence stood, the reviewers favoured schemes based on the patients' actual substance use (or other direct measures of progress) assessed during treatment using objective techniques such as urine tests, and processed in such a way that the results have consequences for the treatment provider. However, such schemes must themselves be implemented using levers such as those tested in the featured study.

British practitioners and managers seeking to improve their practice have available to them the web site of the Substance Misuse Skills Consortium, an independent initiative led by treatment providers to harness the ideas, energy and talent within the substance misuse treatment field, to maximise the ability of the workforce, and to help more drug and alcohol misusers recover. Commissioners of services have been offered guidance from the National Treatment Agency for Substance Misuse, England's special health authority tasked to improve the availability, capacity and effectiveness of drug misuse treatment.

Thanks for their comments on this entry in draft to Laura Schmidt of the University of California at San Francisco in the USA and John Witton of the National Addiction Centre in London, England. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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