The Bridge, Volume 2, Issue 2 Introduction

Paul Roman, University of Georgia, and Editor, The Bridge

Welcome to the mid-2012 edition of **The Bridge**. In a way, this issue celebrates the recent Supreme Court decision that will allow the Affordable Care Act to move forward. As all of our readers know, this opens the door to several major changes, in particular the expansion of the availability of treatment through both broader coverage and by improved organizational structures for the delivery of treatment for substance use disorders (SUDs). The legislation also provides a platform within which to meld the expanded opportunities for quality treatment that should occur with the provisions of the parity legislation, the Wellstone Domenici Act.

It is very timely to consider the results of new work at the University of Wisconsin which offers us a set of eleven "ingredients" for what could be the "successful redesign" of SUD treatment. The issue begins with that presentation, authored by Professor David Gustafson, and is followed by critical responses from the members of the Editorial Board of **The Bridge.**

As always we encourage and welcome commentary on what is presented here for future issues of **The Bridge.** Please direct such comments to Paul Roman at the University of Georgia (proman@uga.edu)

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Essential Ingredients for Successful Redesign of Addiction Treatment

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Summary: Since the passage of healthcare reform, there have been many discussions about how the mental health and substance use disorder (MH/SUD) system will need to change. Of the many components involved in a system redesign, the identification of essential ingredients is crucial to its success. In an effort to determine what essential ingredients the new MH/SUD system requires to optimally meet the needs of its customers, we convened a group of 16 multi-industrial experts who analyzed data collected from a string of 7 focus groups and 15 interviews with people dealing with or working in the SUD field. This paper summarizes the 11 essential ingredients our group identified.

Introduction: System redesign has been the subject of decades of extensive research (Delbecq, 2010; Delbecq, 1975; Van de Ven, 1999; Van de Ven et al. I and II, 1980). Many characterize the processes of redesign as aim creation, problem and asset exploration, solution development, solution testing and adaptation, and implementation. One key process (often interspersed between problem exploration and solution development) is the identification of essential ingredients: Regardless of what solution is developed, it will need to contain certain ingredients to be successful. Many systems design theorists suggest that a key to identifying essential ingredients is to reach outside the boundaries of the field to identify how the best systems in other fields accomplish basically the same thing, and identify what they do that distinguishes them from others in that field. For instance, suppose an organization wanted to improve an internal communications system. One might ask what other field specializes in communications, and what organization stands out in that field. The information technology field comes to mind. Apple would certainly appear among the top of most people's lists. The next question: "What makes Apple so Good? And what can we learn from them?"

We don't need to visit or interview people at Apple to learn the answer. When an organization is outstanding in a particular arena, analyses of their proficiencies abound. A quick Google search of, "What makes Apple so Good?" produced 9,020 references. Valuable ideas can be identified by looking for commonalities in a sample of references. One example of such a reference is a note by Nathan Schulhof (2007), credited by some as the father of the MP3 industry, on why the iPod was so successful. He points out that Apple was "the first to afford the recording industry, producers, and musicians with a marketing and distribution system that provided wide-scale distribution, dignity and rights to the artists,

and well-deserved revenue to those parties . . . offering the full solution in a one-stop shop with successful branding targeted at the youth . . . that worked, period."

So what does this reveal? If the communications system we develop is to be successful, it needs to: 1) focus on a very specific customer (they focused on youth), 2) work exactly as promised (no bugs), 3) reward the producers of the content of the communications that are used, and 4) provide content, marketing, and distribution all in one stop. Most, if not all, of these characteristics may seem obvious (e.g. know your customer) but few organizations really commit themselves to doing that. It is also interesting to note what is absent from the list. Apple, for instance, does not try to be the cheapest or even the first to market; e.g. the iPad.

In rethinking the addiction treatment system, it is in our best interests to identify the essential ingredients the new system requires to optimally meet the needs of its customers. This is what we attempted to do in an ongoing project intended to redesign addiction treatment.

Methods: Over 4 months, staff from the Network for Improvement of Addiction Treatment (a University of Wisconsin-Madison initiative using quality improvement and information technology to improve access to, retention in, and relapse prevention after addiction treatment) conducted and analyzed data from 8 groups and 15 interviews with people dealing with SUD (patients, families, criminal justice personnel, and community organizers as well as primary care, SUD treatment and human service providers). Four included mixtures of patients, families, addiction treatment providers, criminal justice and child welfare personnel, and primary care clinicians while four were subdivided so that patients and unrelated families were separated from professionals. The groups, run by Gustafson and Mosgaller from our research center, were held in Augusta ME, Princeton NJ, Peoria IL, Manitowoc WI, and four in Madison WI.

Each group employed the Nominal Group Technique (Delbecq et al., 1975) where participants were separated into groups of 7-9 in size. We began by asking each person to silently generate a list of the most important personal and organizational barriers they face in trying to do their "job" (e.g. parent a person who is dealing with substance abuse, or patient trying to stay clean and sober, etc). These ideas were listed on a flip chart, one idea from each person and continuing until all ideas were posted. The ideas were discussed for clarification and a quick prioritization was made to get a rough idea of relative

importance. We then repeated the process to identify key assets each group brings to the table. After all group meetings were held, the ideas generated were combined to eliminate duplications but done so that subtle differences in otherwise duplicate items could be included. The specific results are the subject of a forthcoming paper.

The products of those interviews were fundamentally important to redesigning the system, because they gave us goals to shoot for. They also provided a sense of the resources we have available. For instance, a family committed to doing almost anything to help a loved one's recovery may also have skills in communication and information search. Knowing this allows us to develop their commitment and skills into a resource that may positively affect recovery. There are many ways to do this. We set out to identify the essential ingredients that must be present in any successful effort to develop them as a resource. During this process, we also attempted to describe the existing addiction treatment system as a reference point for future design work.

We then convened 12 insightful people from in and outside addiction treatment and healthcare for a one-day meeting at a local monastery. They included: Timothy Baker PhD, clinical psychologist and addiction researcher; Dhavan Shah PhD, communication scientist; Colleen Heinkel PhD, clinical psychologist for returning veterans; Kimberly Johnson, former SSA director and addiction treatment director; Fiona McTavish, program management; Todd Molfenter PhD, health systems engineer; and Tom Mosgaller, community organizer (all from the University of Wisconsin); Ronald Diamond MD, psychiatrist community mental health; Patricia Gabow, former public health director; and Brian Joiner, quality improvement consultant (Madison WI); and Jay Hansen, Prairie Ridge Treatment (Mason City IA) and Michael Boyle, Fayette Companies (Peoria IL), both addiction treatment leaders; as well as one parent of an alcohol dependent child, and one drug abuser.

The author employed an evidence-based-index, development-group process (Gustafson et al 1983) to conduct the exercise. Attendees were interviewed prior to the meeting to seek their advice regarding the essential ingredients that must be present in any system that would meet needs identified in the Nominal Group process. After extensive discussions supplemented by literature reviews, we had a list of potential essential ingredients. These were presented at the meeting, which initiated further discussion and revision. Following the meeting, a revised list was sent to all attendees. They were asked to assign priorities to each of the essential ingredients on the list.

Specific solutions were not developed at the meeting, because systems theorists suggest that there are advantages in large-scale system redesign to holding off on specific solutions until essential ingredients are well understood (Delbecq, 1994). Hence, the reader will not find allusions to integration with primary healthcare, co-location, disease management, etc., although the function of treating the whole patient (not just their addiction) is prominent. We also focused on the environment, as it is an important consideration in refining essential ingredients. For example, a teenager living in a household with smokers or large concentrations of dust mites will have a harder time managing their asthma. Similarly, addressing addiction issues without also considering the environment in which an addict lives reduces the likelihood of success.

Results: As G.E.P. Box (1987) said, "Remember that all models are wrong: the practical question is how wrong do they have to be to not be useful." Here are the 11 essential ingredients that our multi-industrial group identified. We do not claim exhaustiveness or mutual exclusivity, but we hope that what follows will be useful in creating the new addiction treatment system.

- 1. Anytime/anywhere direct-to-consumer assessment, treatment, and continuing care: Addiction has a very limited time horizon for treatment—addicted individuals typically look for immediate help when seeking treatment. HERE (e.g. in their bedroom) and NOW (e.g. at 3 a.m.) are the key words for effective intervention and treatment. Direct-to-consumer self-management is also important, not only because resources are unlikely to be available when required and needs of the SUD population continue to grow, but also because most chronic diseases rely on self-management as a central resource. Today, many services (ranging from police and fire departments to ambulances, online services from product purchasing to education) are available as needed, 24/7, wherever you are. There is good evidence that web-based education can be at least as good as face-to-face education (Wantland, 2004). What organizations take top honors in emergency services and what makes them so good? What can we learn from them as we try to provide anytime/anywhere direct-to-consumer service?
- 2. Minimal variation in the quality of assessment, treatment, and continuing care: A key element of quality (and quality improvement) is to minimize variation (Gitlow, 1989). Then the process becomes predictable; you know what you are getting and have reason to believe that if the process is improved it will have wide effect. It is important for patients, families, providers and payers to know

what they are getting. Miller (2004) and others have pointed out that counseling can range from very helpful to even damaging, depending on the counselor one gets and when they get them. Participants in our design meetings felt that consistent, predictable service is vital in any system redesign for addiction treatment. Panera Bread is an organization that delivers service with consistent quality in the midst of innovation. What makes them so good? What can we learn from them?

- 3. Take advantage of emerging and existing technologies: Information and communications technologies are becoming centerpieces of healthcare with electronic health records linked across systems and more recently mobile health systems (Thompson, 2010). Some technologies are a nuisance. Consider customer service systems that trap you in an endless loop of pre-recorded messages when you need to talk to a person. Those systems are set-up to meet their needs, not yours. They leave people frustrated and angry with that technology. However, many valuable applications of technology improve our quality of life (Bewick et al., 2008; Murray, et al., 2007; Gustafson et al., 2008; Bickel et al. 2008) and reduce costs (Gustafson et al., 1999). Smart phones (mobile health) now have the capability to offer face-to-face counseling (Jobs, 2010), and GPS monitoring of location (Gustafson et al., 2010), while sensors can predict the advent of cravings (Picard, 2010), and virtual reality games (Boulay, 2007) can help SUD patients prepare for addiction stressors they will face. The capabilities are expanding as investment in mobile technology increases faster than any other computer-related field. These technologies, when properly designed and used, open enormous doors to improvements in treatment effectiveness, reductions in cost, and increased capability to serve those in need. Any successful system redesign must take full advantage of emerging technologies. China is reputed to have the world's best cyber terrorist army. What makes them so good? What can we learn from them?
- 4. Global assessment, treatment, and continuing care of patient (and family) needs and assets:

 Everyone brings both needs and assets to the addiction table. In many cases, an important patient asset is a family that would give anything to see them recover. That family has their own needs (e.g. to be protected from the patient who has damaged them so often), but it also has assets that can help the treatment system help the patient. Of course, addiction does not exist on an island. Because of the addiction, but often in addition to it, the patient and family come with other needs. Recognizing and taking action to overcome issues such as pain, mental illness, stress, other chronic and acute diseases, and environmental factors such as employment and housing can make a difference in the

final costs and outcomes. The integration of SUD treatment with primary care is an important step to treating the whole patient. Yet, it has a long way to go in finding methods of treating disease as a family and not just as a patient. A spouse that ensures a patient takes their medicine can be a powerful force in recovery. We also know that spouses of patients with severe illness suffer deeply and need help (Dubenske et al., 2008). A family can take loads off of the treatment system if properly prepared and enabled. Any successful redesign of the addiction treatment system must include global assessment, treatment and continuing care of the whole patient, including family needs and assets. Disney is a master at understanding the needs and assets of families. What makes Disney so good? What can we learn from them?

- 5. **Soft and minimal handoffs:** Treating addiction and other illness often involves moving the patient and family between levels of care, potentially involving several different organizations. Every time a patient moves from one level/organization to another, the risk of failure increases substantially. Consider the number of people in detox who never make it to another level of care. Like any other complex system, one key to success in addiction treatment is to minimize the number of handoffs and when a handoff is essential, make it a "soft" one (Solet et al. 2005). Soft handoffs make sure the patient and family get to where they are going and ensure they are welcomed and informed by caring people who are on the same page as the referral source. No one falls through the cracks. If they do, it is considered a system failure and not a failure of the patient or family. There are no duplicate questions and no unnecessarily sudden changes in the treatment plan. Any successful treatment redesign will minimize handoffs and when handoffs are essential, ensure they are warm. What industries are great at handoffs? Football? NASCAR and its pit-stops? Soccer? Who are the best in these industries? What makes them so good? What can we learn from them?
- 6. Evidence based practices: Gradually the addiction treatment field is developing a storehouse of evidence-based practices (National Quality Forum, 2007). Like many research studies, the practices have been evaluated under specific circumstances that may or may not fully translate to the real world. However, they do point us in the right direction. Some, like motivational interviewing and contingency management, have been tested and retested in such a wide variety of circumstances that we know a lot about the "essential ingredients" for their successful application. Any high-quality addiction-treatment system needs to take full advantage of evidence-based practices and needs to discontinue what does not work. Some would say that Microsoft has been very successful at

adopting and spreading others' innovations (e.g. graphical interface from Apple; its development platform from Java). What made Microsoft so good at finding, adopting, and spreading innovations? What can we learn from them?

A very important subcomponent of evidence-based practices in addiction is medication-assisted treatment. One could convincingly argue that great advances in human welfare have come from new technology (e.g. public health/sanitation and medications). The discovery/creation of antibiotics is just one example. For many years and for many reasons, the potential of medications in addiction treatment has not been realized. That is changing with recent developments and acceptance of medication-assisted therapies (Thomas et al 2011). Research promises many more advances, not only in medication but also in genetics. Tobacco treatment is an example of healthcare systems using electronic prompting and monitoring to ensure adoption and adherence to effective medication treatment where needed, where policies have increased low- or no-cost medications, and where high-reach delivery systems (e.g. national quit-lines) are providing medication. What can we learn from this experience?

- 7. Connect, support and engage patients, families, peers, and providers before, during, and after treatment: As Hillary Rodham Clinton said, "It takes a village" (Clinton 1996). Patients and families need emotional and instrumental support from people who understand what they are going through. They also need support from their providers and the community at large. I had a heart transplant 18 months ago at the Cleveland Clinic. Even now, after my monthly blood tests, I receive a call from my post transplant coordinator, often at 9 p.m. on a Friday night, to tell me the results and to ask how I'm doing. Professional and collegial caring, connections and support are essential ingredients in the design of any high-quality addiction-treatment systems. What is it that makes it possible for the Cleveland Clinic to do this? What industries are great at connecting and supporting not only their customers but their families as well? What organization in that industry is the best at doing that? What can we learn from them?
- 8. Just in time continuing care, on-going monitoring with as needed outreach, skill development, preventive intervention, social support, and emergency response to derail crises: Addiction is a long term, complex disease; not an event. When help is needed (for patient or family), it is often needed now. It may be for no other reason than to intervene before the problem becomes a crisis.

Frequently the patient does not even know the need exists. Yet, continuing care can make an enormous difference if the need is detected immediately, help is tailored to the situation, and the success of that help is monitored and responded to. I sometimes wonder whether the addiction treatment system should offer anything but continuing care. Any successful redesign of the addiction treatment system must include just-in-time continuing care for the patient and family. Amazon.com has your history and can suggest what you might like. Is an essential element of their success the ability to seamlessly pick-up where you left off, without a big process and with the sense of continuing relationship the experience offers? What makes them so good? What can we learn from them?

- 9. Mechanisms to help the patient and family recover in a hostile environment: Addiction exists in complex environments where patients go through months of treatment and quickly relapse when they return to a life without meaning or security. They re-enter unsafe housing, low paying jobs, low education, unsupportive family relationships, etc. Addiction treatment providers cannot do it alone. In an ideal world, the village would change. Sounds good, but in reality villages do not change fast. We can engineer support and interventions, but it's unlikely we'll change economic systems. In most cases, the person will not get a Ph.D., will not land a good job, and will not have a beautiful person fall in love with him or her. In large part, these things will not happen because many people have changed little since entering treatment—some are still a borderline personality, a psychopath, uneducated, hostile/aggressive, etc. However, it may be possible to help those people function more effectively in the environment they face if we increase support and opportunities. We can develop systems and procedures that remind a patient to go to work and act in a timely fashion, that detect anxiety or when a craving is about to increase. These systems can provide just-in-time interventions and immediate, 24/7 access to training on how to interview for and retain a job. They can also maximize safety in a complex environment. What other industries are great at this, and how do they do it? What can we learn from them?
- 10. Valid, timely, and practical progress measures: Currently-employed measures of progress in addictions have significant value (Garnick et al. 2006). For instance, there is good reason to believe that the longer the patient stays in care, the better the outcome. The ultimate purpose of addiction treatment is to give the patient and family happy, productive lives. How do we measure progress toward that goal? Current measurement processes are often expensive, difficult to employ, and

subject to intervening factors (e.g. a major recession) over which the treatment system has no effect. There are efforts to develop practical, sensitive, transparent, and reliable measurement systems. However, there are simple, practical things we can do today to find out if a person is about to crash. The full solution lies not only in devising new tests, but in creating simple systems and procedures to allow all who might benefit to employ just the right information (not too much, and not too little) in a timely and inexpensive manner. What industries are great at measuring the progress of their customers (and their customers' "families")? What are the best of the best in those industries, and what makes them so good?

11. Pay for performance: There is general agreement that current payment systems need to better reward providers for success as defined above, regardless of whether payment comes in the form of grants, fee for service, or capitation (Institute of Medicine, 2007). As measures of success improve, performance-based payments may become more practical and accurate. Payment is a fundamental component of all industries, yet no payment system comes close to being perfect. W. Edwards Deming strongly advocated for profit sharing as the basis of rewarding employees (Scholtes, 1987). The addiction field is largely not for profit. However, elements of profit sharing (and other payment systems) (Gustafson, 1972), may be useful at an individual and organizational level. Any successful addiction treatment system needs to take large steps toward developing and continually improving a system that rewards ongoing performance in terms of enduring patient and family outcomes. What industries are great at payment? What makes them so good? What can we learn from them?

Discussion

Changes like this don't just happen. Resources such as changes in policy, payment and regulations; support from healthcare and other community-based systems; continual advances in: technology, personnel and systems operations, research and dissemination strategies should bare the load. Understanding the specific roles each resource plays in pursuing the essential ingredients is a next step in our work.

As Box (1987) said, the model we have presented above is certain to be wrong. Our searches will not reveal the very best ways in which other industries have addressed these issues. Translation to the addiction treatment field will be imperfect. Essential ingredients we have not considered likely exist.

The ways we suggest to employ these essential ingredients will be fraught with error as any human enterprise is, but we are determined that our efforts and the model that results, will be helpful.

The mission of NIATx and our research center is that "no one should suffer twice." Dealing with a serious illness is hard enough on patients and families without encountering another layer of suffering from ineffective, burdensome systems and procedures that limit access to care and interfere with providing high-quality care as we know it. More needs to be learned about how to improve treatment, to determine the comparative effectiveness of treatments we already have, and know much more about who benefits from what. Major system and process improvements are needed in this field and experience from other fields can reveal a lot about how to do that. We need to look.

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If There Ever Was a Time....

Michael G. Boyle, The Fayette Companies

The title of this commentary was taken from the first chapter of a book edited by William Miller and Kathleen Carroll titled *Rethinking Substance Abuse: What the science shows and what we should do about it.* (Miller and Carroll, 2006). In 2004, Miller organized a meeting of researchers within diverse areas of addictions to discuss their findings and the implications for interventions. The research results over the last 20 years were reviewed. This meeting was titled "The Conference on Approaches for Combating the Use of Substances", the CACTUS summit, held in New Mexico, of course. The summations of research discussed were complied in the manuscript. In the last chapter, Miller and Carroll summarize these findings into ten principles and ten recommendations.

Miller and Carroll utilized a group of scientists to inform on the results of their research. David Gustafson utilizes the opinions of persons from both within and outside of the addiction treatment field to identify the essential ingredients of a redesigned system of addiction treatment. The recommendations are remarkably consistent including rapid access to services, involvement of family and social supports, and the use of evidence based practices.

The differences in the two reports is that while Miller and Carroll identify what treatment processes should be used, Gustafson also addresses system components to achieve recommended changes. Gustafson is an industrial engineer at the University of Wisconsin – Madison's College of Engineering skilled in process improvement. He develops and researches improvements in the treatment of and recovery from chronic health conditions. His focus on substance use illnesses centers not only on what should be changed but also how the recommended changes could be reinforced and implemented.

One of Gustafson's ingredients for redesigning addiction treatment is to take advantage of emerging technologies. These new and developing technologies have the potential to provide immediate access to services while decreasing variance in utilization of evidence based practices. Many of these technologies did not exist when the CACTUS summit was held and thus their use in achieving improved clinical approaches could not be conceptualized. Examples include smart phones and computer tablets that allow two way video conferencing in addition to anytime/anywhere applications that could be used to implement many of the principles developed from the CACTUS meeting. An overview of the potential benefits of using technology based interventions is provided in an editorial in a recent edition

of Substance Use & Misuse (Marsch, 2011) as well as a review of recent studies of computer-based interventions (Bickel, Christensen, & Marsh 2011). The authors point out the potential for the use of computer technologies to increase access, provide evidence-based interventions with high fidelity, and achieve the same results as clinician delivered services at lower costs. Marsch points out that these technology delivered interventions can be used as "clinician extenders".

Gustafson and colleagues (Gustafson, Boyle, Shaw, et.al.2011) recently completed a literature review of randomized controlled trials of information and communication technologies to address chronic diseases. Of the 34 studies meeting the criteria for inclusion in the review, 10 were targeted at addressing substance use illnesses. All 10 studies demonstrated a positive effect. The technologies used in the trials was computer delivered in 6 studies, provided by telephone in 3 of the approaches and through television in one study. None used cell phones. This manuscript also describes the Alcohol Comprehensive Health Enhancement Support System (ACHESS) currently being tested in a NIAAA RCT. ACHESS uses smart phones to delivery a variety of recovery support services. Dave Gustafson is the principal investigator for this research project.

New uses of information and communication technologies are likely to grow very rapidly and hold great promise for re-designing the address of substance use and other illnesses as well as for prevention and promotion of wellness. A caution is that new web-based applications for resolving addictions are currently being marketed that have not undergone scientific testing of their efficacy or effectiveness. Some of these may be compared to selling the "snake oil" cures for alcoholism in the 19th century.

In his paper for *The Bridge*, Gustafson makes an interesting observation: "I sometimes wonder whether the addiction treatment should offer anything but continuing care". Treatment and continuing care have been segmented into silos within the existing system, usually delivered by different staff members requiring a "hand-off" of the patient and, at least historically, continuing care, or aftercare as it was formerly known, was often an afterthought. We have structured our systems to separate treatment and continuing care. In fact, this is built into treatment programs such as residential and intensive outpatient in the form of a "graduation" service in which the patient is recognized and provided with symbol of their success such as a coin or coffee mug. A message may be being sent that they have completed treatment. Few graduates of the educational system think they need to return to campus for more classes that next day. And, if they return to use as most do at some point, they and the providers assume they

must return to formal treatment. Thus, we have developed a series of programs not a system of recovery support. This model was even followed in the development of the ACHESS intervention that originally was designed to provide recovery support following a residential treatment episode.

A re-designed system could tear down these artificial walls and silos. Recovery supports could begin immediately upon a person beginning to receive any service. In reality, many treatment organizations have implemented a similar system for decades by "introducing" people to 12 step programs. The problem is that this was the only "choice" for recovery support being offered. Other mutual aid and faith based options should be offered to each patient so they may choose the best option for them. Many of the services offered in ACHESS such as GPS notification of approaching a high risk location, the discussion groups and the panic button to alert selected individuals for their support could be utilized at the start of a treatment episode rather than only after completion of treatment.

Use of the new technologies could combine treatment within what is now deemed continuing care. Patients may want "booster" sessions on how to address specific problems. These could easily be selected and delivered through technology without having to return to the formal treatment setting. Further, the new technologies have the capacity of delivering a face-to-face counseling session on a 24/7 basis.

While I understand Gustafson's musing regarding the possibility of only needing continuing care, he still is using existing language to identify the system. We need new terminology that identifies a comprehensive and integrated approach.

Perhaps the most important ingredient Gustafson proposes for developing a re-designed treatment system is Pay for Performance. A related premise is that organizations will do what they are paid to do. If funded through a grant to treat a specific number of patients yearly, the numbers entering treatment will drive behaviors. If paid through fee-for-service, hours and days drive the performance metrics. There is no perfect funding methodology. Each has strengths and weaknesses including both positive and negative incentives. Yet, within each funding mechanism, contract specifications and related incentives could be introduced to drive providers toward behaviors that are associated with better outcomes.

The majority of the funding for the treatment of substance use illnesses, approximately 65%, is administered by a designated official within each state. The funds for which they are responsible include the SAMHSA block grant, Medicaid expenditures for substance use treatment in specialty settings and any general revenue or other funding allocated by each state.

When Miller and Carroll published their chapter "If ever there was a time..", they were correct that the time should be now. Five years later, there is scant evidence that organizations adopted the principles arising from the CACTUS summit. Access to knowledge does not automatically translate to change in processes. The gap between science and practice is not being bridged. External forces that disrupt the long-standing equilibrium within the addiction filed may be needed. This is the role that the designated state agency could implement on a state by state basis.

These "single state authorities" (SSA) have tremendous responsibility yet their annual allocation of funding is controlled by the state legislature. Below, I am providing a fantasy scenario of one of these authorities testifying before a legislative committee during the budgeting process. This would require great courage including the willingness to admit that the state's funding has not been managed to provide the best results in the past. My hope is that at least one of these individuals have the strength to step forward, take the risk, attempt to leave a significant legacy and serve as a model to their peers within other states.

So here is my fantasy testimony:

- "The treatment services we have been buying are predominately based on the ideology of the provider organizations, not on science. For example, we have allocated a significant portion of our resources to the purchase of residential treatment services, some extending the length of stay to six to twelve months. Yet, there is no scientific evidence that such long residential treatments produce superior results compared to outpatients services. Many complex surgeries now require an inpatient stay of but a few days. Why would the treatment of a substance use illness require months of residential treatment?
- While "treatment works" has been a slogan of the field, the reality is that return to use of alcohol and drugs are common following treatment as are the returning symptoms of other chronic disorders such as diabetes and asthma. Thus, we need to adopt the disease

management approaches used in the treatment of chronic healthcare problems that includes continuing care, ongoing monitoring and early re-intervention if needed.

- New treatment episodes, if needed, should be adapted to the needs of the patient, their families and support systems. Enormous resources have been expended in providing the same treatment approaches multiple times when people return to use. If the initial treatment was not successful, we need to modify the approach and fine tune it.
- Over thirty years of scientific research demonstrate that certain treatment approaches produce superior results. Organizations receiving funding from my department will have to demonstrate that these evidence based practices are the predominate approaches that they are utilizing in their funded services. Yet, we do not want to stifle innovations that may contribute to new approaches and potentially even better outcomes. Therefore, up to 10% of the annual contract amount may support such demonstration studies provided a design has been approved by scientific advisors to my department and includes an evaluation component.
- Effective medications for treating alcohol and opiate dependence are available. My department will insist providers utilize these medications and will support this effort by moving a portion of the existing funding into contract line items that will be used to purchase the medication for those who are uninsured.
- Advances in technology are allowing evidence-based treatments and recovery supports to be delivered through use of computers, smart phones and electronic tablets. Some of the features being delivered through smart phones today include a GPS function that warns people if they near a high risk location such as a favorite bar where they used to drink or a location they formerly bought drugs, a panic button that summons help from families and friends if they feel a high risk of using and a discussion board where they can post and respond to questions and requests for assistance on a 24/7 basis. In a sense, they have a counselor or recovery coach in their pocket at all times. The results of rigorous scientific studies of these applications are showing the outcomes of these technologically delivered services equal or exceed results from the usual treatment approaches. When combined with face-to-face services delivered by well trained counselors, these technologies can serve as clinician extenders and allow access for more patients.

• To implement these needed changes to the system treating substance use illnesses within our state, we will move to a pay for performance purchasing methodology. Criteria demonstrating achievement of the objectives I have outlined will be developed with input from the providers. Both risk and potential rewards will be introduced into our contracts.

I cannot design and fully implement all of these changes within a single fiscal year. I pledge to bring back to you in a year with a very detailed progress report regarding all of the objectives I have outlined. I am simply requesting you maintain your current allocations of funds to our department while I implement and evaluate the results of improved treatment processes, outcomes and access to services.

I also wish to provide you with a cautionary note. Some of our current contracted provides will resist the changes I am proposing. Some may approach members of the legislature to protect them from the pay-for-performance requirements in their contracts. Their arguments may center on a theme that they have been providing their treatment approaches for many years and know they have many successes. I will address these requests for protection from the proposed changes with each of you at any time. My simple reply to their claims that no changes are needed is "if you were diagnosed with cancer, would your request be for the same treatment that your grandfather received 30 years ago?"

"What Makes Apple So Good": A Lens for Examining the Addiction Treatment System Hannah K. Knudsen, University of Kentucky

We are living in turbulent and unsettling times, and the addiction treatment system is certainly not immune to this turbulence. Changes appear to be on the horizon, although the form and content of those changes have yet to be fully determined. But it seems clear that the cascading impacts of federal health care reform, changes in the federal block grants for treatment providers, and ever-tightening state budgets will re-shape the addiction treatment field as we know it. These upcoming changes make Dr. Gustafson's article on re-designing the addiction treatment system particularly timely. I particularly appreciated that his model of essential ingredients drew upon the perspectives of a broad base of stakeholders—including patients, their families, and health care providers—as well as experts in addiction and systems change to produce a set of 11 essential ingredients for system redesign.

One section of Dr. Gustafson's article that really resonated with me was his question, "What makes Apple so good?" (and not just because I use four Apple devices in my daily life). Dr. Gustafson points to four essential ingredients, namely that Apple products: "1) focus on a very specific customer; 2) work exactly as promised (no bugs), 3) reward the producers of the content, and 4) provide content, marketing, and distribution all in one stop." In his article, he repeatedly asks us to think about what we can learn from Apple and other successful organizations. So as I thought about my response to his article, I decided to apply these points about Apple to my view of the US treatment system.

Using these four ingredients as a lens for analyzing the treatment system brings to light the multitude of challenges facing the addiction treatment field. Starting with the first ingredient, one could argue that it is difficult to even fully identify our customers. At first glance, it seems obvious: the customer is the client receiving treatment. But as Dr. Gustafson notes, families of clients are both a vital resource for the system and may be customers if they are paying for the treatment (e.g., parents of adolescents with substance use disorders). However, the current system is structured such that most of the reimbursement for treatment services comes from governmental entities or, to a lesser extent, insurance companies (Mark, Levit, Vandivort-Warren, Buck, & Coffey, 2011). Are these organizations also customers? And if so, how much weight do we give to their interests, particularly if those interests conflict with the needs of clients? If nothing else, the challenge in defining the customers of addiction treatment highlights how difficult it may be to focus on the customer experience.

The challenge of "working exactly as promised" is one that researchers, clinicians, and purchasers of services continue to grapple with. There is an ever-growing list of therapeutic interventions—both psychosocial and pharmacological—that fall into the rubric of "evidence-based practices" (EBPs). And indeed, evidence-based practices are superior when compared to placebo (i.e., no medication, or no therapy), and they do yield measurable improvements on average. But nonetheless, we are a long way from "working exactly as promised" in the sense of knowing which intervention will work best for which patient. Addiction treatment is not unique in this regard—it is a challenge that is ubiquitous throughout health care. Research using adaptive designs, where the course of treatment is not determined by a standardized set of sessions (as per many of our manualized EBPs) but rather is titrated to greater or lesser intensity based on patient progress (Murphy, Lynch, Oslin, McKay, & TenHave, 2007), may move us toward treatment strategies that are closer to working as promised. But the potential of using adaptive strategies and other technological tools to inform treatment decision-making remains relatively under-utilized at this point in time.

"Rewarding the producers of the content" is an interesting notion that is perhaps gaining some traction in the addiction treatment field, particularly in the use of pay-for-performance, an ingredient that Dr. Gustafson also discussed. Recent research has looked at the impact of pay-for-performance at the systems-level (i.e., state governments tying reimbursement to treatment providers based on predetermined outcomes or mandating the use of EBPs; see Haley, Dugosh, & Lynch, 2011 and Rieckmann, Kovas, Fussell, & Stettler, 2009) as well as strategies for rewarding individual counselors based on their clients' outcomes (Garner, Godley, Bair, 2011; Vandrey, Stitzer, Acquavita, & Quinn-Stabile, 2011). But much more research is needed to really understand how to incentivize both individual clinicians and treatment organizations in order to yield content (i.e., treatment services) that also "works as promised."

And the last ingredient—embedding multiple functions into "one stop"—is perhaps analogous to calls for comprehensive services within addiction treatment organizations. Such a model combines the core services of addiction treatment (e.g., therapy, medications, continuing care) with wraparound services that address the complex needs of SUD clients (e.g., medical and mental health care, education, employment, etc.). This model of service delivery is recommended in the National Institute on Drug

Abuse's (2009) *Principles of Drug Addiction Treatment*, yet few programs have adopted all of these services. An analysis of 754 treatment programs in the National Treatment Center Study found that the average program offered just 6.5 of 14 core and wraparound services recommended in the NIDA guidelines (Ducharme et al., 2007). The concept of "one stop" is not yet the norm within our system.

The US addiction treatment system faces an uncertain future, but Dr. Gustafson has raised a number of questions that can help us to think about how the system might better help individuals with substance use disorders. I found these questions to be useful for not only considering what our field might learn from other industries, but also as a lens for considering the current state of our system and our science. Many complex challenges remain, but hopefully Dr. Gustafson's article will begin an ongoing dialog about future directions for our field.

Come to the Cabaret

Steve Martino, Yale University

David Gustafson deserves much credit for stretching our imaginations about what is needed to redesign the addiction treatment system in the United States. It brings to mind a similarly stimulating series of chapters in *Rethinking Substance Abuse*, edited by William Miller and Kathleen Carroll in 2006, in which leaders in the addiction field challenged long held assumptions about substance abuse and proposed fresh new ideas about how to better approach addiction care. In the article, Dr. Gustafson identifies 11 essential ingredients to meet the needs of the various customers involved in the addiction treatment service system:

- 1. Provide care anytime/anywhere
- 2. Have minimal variation in high quality
- 3. Use emerging and existing technologies
- 4. Give attention to the global needs and assets of patients and families
- 5. Establish soft and minimal handoffs between levels of care and organizations
- 6. Use evidence-based practices
- 7. Connect, support, and engage all parties
- 8. Provide just-in-time continuing care and outreach and intervention to derail crises
- 9. Build mechanisms to address hostile environments for recovery
- 10. Employ valid, timely, and practical progress measures
- 11. Pay for provider performance based on successful outcomes

In most cases, he recognizes highly successful industry leaders that have maximally leveraged these essential ingredients (e.g., Apple, Microsoft, Panera Bread, Disney, National Football League, NASCAR, Amazon.com) and then rhetorically asks the question, "What can we learn from them?" The reader is left to ponder potential answers and is promised that forthcoming publications will provide some suggestions from Dr. Gustafson's multi-industrial research group. I very much look forward to their proposals.

As I read the article, however, Liza Minnelli singing "Money" from the classic 1972 musical film Cabaret began to play within me. In most cases, the institution of the essential ingredients as key

components of a redesigned addiction treatment system would require a substantial societal investment, similar to the level of expenditures provided for other debilitating and deadly diseases that have greater public support (e.g., cardiac disease treatment as experienced by Dr. Gustafson at the Cleveland Clinic). The referencing of major multi-million and billion dollar industry leaders throughout the article kept the chorus ringing in my head: "Money, money, money, money, money..."

One area of investment critical to the success in pursuing the essential ingredients is the addiction treatment workforce. The training, workload, and compensation of addiction counselors need much more attention if the addiction treatment system is to improve. It is very clear that particular qualities of counselors can affect the engagement and participation of patients in their care and that the degree and duration of patient involvement in care affects their post-treatment outcomes. For example, patients treated by empathic counselors fare better than those treated by confrontational ones (Miller, Benefield, & Tonigan, 1993). Counselors who use evidence-based approaches are more likely to be more helpful to their patients than those who adhere to ineffective practices that have permeated the addiction treatment field (Miller, Zweben, & Johnson, 2005). Developing both general relational counseling skills and specific techniques unique to particular evidence-based practices requires an investment in counselor training. This typically involves targeted workshop training or seminars followed by supervised practice cases in which counselors who have their clinical care directly observed and then receive feedback and coaching to improve their practice (Beidas & Kendall, 2010; Herschell, Kolko, Baumann, & Davis, 2010; Martino, 2010; Rakovshik & McManus, 2010). Unfortunately, even when agencies purport to offer evidence-base practices to patients, few of them are providing their counselors training and even fewer offer closely supervised experiences to help counselors become proficient in the services they are trying to deliver (Olmstead, Abraham, Martino, & Roman, in press). While it is not clear why this is the case, in part it may be due to the lack of funding and financial incentives to provide sufficient training and supervision in the best available addiction treatment services.

Another area with financial ramifications is the excessive supervisor and counselor workloads in the field. Typical outpatient counselors carry active caseloads of 150-500 patients, often with very little medical backup available to them to manage the multitude of physical symptoms and co-morbid medical conditions that accompany addictions (McLellan, 2006). In large part, these caseloads are driven by rates of reimbursement and restricted funding for services. Agencies simply have to treat more patients with fewer counselors to stay financially afloat. Moreover, these caseloads have resulted in group

treatment being the dominant approach implemented in addiction treatment settings (McLellan, 2006), even though adaptations of 1:1 evidence-based practices for use in group formats often are more complex to deliver and very few of them have been empirically validated in efficacy or effectiveness trials. Add to this the case management issues (financial and legal problems, unemployment, unstable housing or homelessness, dual psychiatric conditions) and one can easily wonder how it is even possible for counselors to help patients recover. Related fields have come up with evidence-based service system solutions to these problems, such as the use of Assertive Community Treatment (ACT) teams for patients with co-occurring serious mental illness and substance use disorders (Essock et al, 2006), but these modes of service delivery rely upon rich resourcing and will require more financial investment in the addiction service system if they are to be used within it.

Counselor workload burden has been further impacted by documentation demands. State and accreditation commission (Commission on Accreditation of Rehabilitation Facilities, Joint Commission on Accreditation of Healthcare Organizations) documentation requirements, inaccessible records, and redundant information gathering procedures all add to the burden. The field is reaching a point in which the time required to complete "paperwork" may be diminishing the ability of counselors to deliver the very services they are documenting. Furthermore, time that might have been spent on clinical supervision to promote evidence-based practices often gets shifted to administrative oversight to ensure that counselors are compliant with their documentation requirements. These problems are well recognized in the field and many efforts are underway to develop an electronic medical record appropriate for the addictions treatment field (Ghitza, Sparenborg, & Tai, 2011); this will require money, money, money, money, money, money, money, money.

Another area with financial implications is the turnover of addiction counselors in addiction treatment programs. Annual turnover rates are as high as 50% in some agencies, as McLellan (2006, p. 288) puts it, "approximately the same as in the fast-food industry". The time and effort spent on rehiring, orienting, training and supervising staff is substantial. Part of the problem may be due to the limited compensation counselors get for the work they do. The 2011 pay rate for addition counselors in the United States was \$20,011 - 46,423.00 per year

(http://www.payscale.com/research/US/Job=Addiction_Counselor/Salary; accessed December 9, 2011). It is not surprising that counselors may look around for better employment opportunities both within and outside of the field to make ends meet.

Finally, we need to invest more money in implementation research. While we may know which treatments work and in some cases how they work (Miller & Rose, 2009; Kulik, Nich, Babuscio, & Carroll, 2010), we lack some very basic information about what the best and most cost-effective strategies are for preparing the workforce to delivery evidence-based practices. For example, a trainthe-trainer approach is often used to disseminate and implement evidence-based treatments in mental health and addiction community programs (Hawkins & Sinha, 1998; Hein, Litt, Cohen, Miele, & Campbell, 2009; Rogers, Cohen, Danley, Hutchinson, & Anthony, 1986). In this approach, an expert trains practitioners how to teach a designated treatment to others. Subsequently, the practitioners return to their settings and then train, supervise, and monitor staff members' treatment implementation. The idea is to establish program-based advocates who first become knowledgeable and committed to a treatment, and then actively champion its use within their agencies (Addis, Wade, & Hatgis, 1999; Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005; Simpson & Flynn, 2007; Squires, Gumbley, & Storti, 2008). The belief is that this would permit in-house, ongoing supervision and consultation to the implementation effort and the capacity for just-in-time training given the expected counselor turnover within agencies, thereby making it more cost-effective than a solely expert driven training approach. In a randomized controlled trial, we found the opposite. Namely, the expert approach was more costeffective than the train-the-trainer one, in comparison to a self-study control condition, even in the hypothetical condition in which the train-the-trainer approach was repeated 25 times within one year! What we believed to be true and has been widely practiced turned out to be wrong, at least in this case. As we move to redesign the U.S. addiction treatment system (e.g., by addressing needs and assets of the counselor workforce), close attention will be needed to ensure the best bang for the buck as changes are instituted.

Just for the moment, however, let us suppose these kinds of investments will made by federal, state, local, and private groups. Dr. Gustafson has invited us to imagine a service system that provides high quality, integrated, collaborative, monitored, continuing care anytime and anywhere. The return on this type of investment in terms of reduced health and legal problems and service system costs, improved personal and family functioning, employment, and quality of life would be huge. It seems well worth it to me, and I would imagine that all the potential customers of addiction services would come to the cabaret.

Essential Ingredients for Successful Redesign of Addiction Treatment: A Response

Heather J. Gotham, University of Missouri-Kansas City

Gustafson's essay provides an engaging starting point from which to imagine a possible future addiction treatment system. In reviewing the article, three main comments came to mind, including other avenues for looking at essential ingredients, something that seems missing from the proposed list, and a look ahead.

Other avenues: Considering fields outside of the addiction or mental health treatment systems from which to garner ideas about redesign is a very compelling strategy. For example, the Jonathan Rauch article, "If air travel worked like health care" (2009, National Journal) and now near-viral YouTube video by Mary and Peter Alton, presents a parody of what it would be like to make a simple airline reservation if the airlines had the same communications, record-keeping, and business practices as health care (e.g., the traveler needs to contact separate carriers for each leg of the journey; baggage and fuel are considered specialty services; billing is handled separately for all aspects of the trip including flights, baggage, and fuel; and all transactions are still conducted via fax and paper). Although it is a negative example (meaning that it highlights what doesn't work), the Rauch article points out that one can gain some clarity about a system by imagining how it would work, or does work, in a different context. As stated, this strategy highlights what is broken in a system, whereas Gustafson's method goes more from the angle of what would work best. But that method begs the question--why does addiction treatment need to be redesigned? What exactly are the problems with the current system? How might the addiction treatment system need to be changed in light of parity and health care reform? The purpose of the redesign and parameters around which it may need to be changed are not identified, and it may be a stronger method to examine essential elements based on bringing the best from other systems and analyzing what doesn't work with the current system.

Another comment on method or avenue relates to the statement in the Introduction, that the method used is to "identify how the best systems in other fields accomplish basically the same thing." The phrase "basically the same thing" can be interpreted at different levels. Some of the essential elements listed in the current article seem positioned at a fairly broad level, meaning that 'basically the same thing' refers to macro-services or components such as emerging technologies. It would be worthwhile to look also at essential elements from other sectors within human services or health care that already provide

exceptional services, but where the 'basically the same thing' is more proximal to the types of services provided through addiction treatment (e.g., what aspects of a successful diabetes care clinic can be applied to addiction treatment; similar to Gustafson's Cleveland Clinic example). These could be on the large scale of a treatment system (e.g., managed care organization, hospital network), or even within one clinic or office. Including examples that are a little closer to the current addiction treatment system may be beneficial without sacrificing the main strength of Gustafson's method, which is flying high enough above the current reality to generate innovative thoughts on redesign.

Something missing: Where is the workforce? Interestingly, although most of the essential elements refer to services and practices, none reference who will be providing the services. Workforce issues are not listed among these essential elements. What types of staff members would be ideal in a redesigned system? How much and what education will they need? It is likely that a future addiction treatment system will include a very heterogeneous population of clients, including a majority with co-occurring mental illness, and many with significant health issues or disorders. The current workforce in addiction treatment is generally a very dedicated and passionate group of people who unfortunately are aging, are overworked and underpaid, have variable education, and tend to change jobs or turnover with a moderate to high rate. How can a system redesign help to change some of these factors?

A look ahead: Even with the outline of a new addiction treatment system not fully explicated, the exercise of exploring a redesign leads to questions about how the redesign will be accomplished. That is, what type and manner of organizational change will be necessary to bring about a new treatment system? Just as Gustafson calls for the best of implementation science to assist in spreading evidence-based treatment practices, a system redesign would also need to bring to bear the best thinking and research on organizational change strategies. Moving a nationwide network of specialty addiction treatment providers to change not only how they do business, but perhaps what business they do, will require a huge effort to manage the change process. The system is already financially fragile and stressed due to budget cuts of the past decade. Without careful management, a disruptive change process could lead to a major loss of treatment provider organizations, workforce, expertise, and hence a decreased quality of services to clients.

In summary, this article by Gustafson tantalizes us and draws us in to consider future possibilities. As it is a brief overview of the larger study, it also leaves me wanting to hear more about the method and

specific comments that were made through the focus group and expert leader process. I look forward to the full report.

Essential Ingredients for a 21st Century Addiction Treatment System

Dennis McCarty and Traci Rieckmann, Oregon Health Sciences University

David Gustafson's essay challenges practitioners, program directors and policy makers to redesign addiction treatment services. Healthcare reform is changing rules and disrupting the status quo. We must seize the opportunity to vision what could be and ask, "Why not?" David's 11 essential ingredients provide a starting point for rethinking and reengineering contemporary addiction treatment services.

For the past decade, we have collaborated with David to evaluate and assess the application of process improvement and organizational change practices to treatment services for alcohol and drug use disorders. Treatment centers that eliminate wait lists and offer same day and next day appointments serve more patients, retain patients in care, generate more revenue, and reduce organizational expenses (Hoffman, Ford, Choi, Gustafson, & McCarty, 2008; McCarty et al., 2007; McCarty, Capoccia, Gustafson, & Cotter, 2009; Quanbeck et al., 2011). Patients who enter care more quickly, moreover, are more likely to be retained in care (Hoffman, Ford, Tillotson, Choi, & McCarty, 2011).

I presented the data on the association between wait time and retention at the annual meeting of the College of Problems on Drug Dependence. An older practitioner scrutinized my poster and turned to me. "You are absolutely right!" he stated. Then, he continued with a contradiction "You are also absolutely wrong!" I asked how both could be true. At his program, he explained, he knew that prompt care was better care. But, when he gave a patient an appointment for 30 days away, the patient left happy – he had an appointment. When the patient failed to show in 30 days, the program director was happy – he didn't have the resources to support another patient. This contradiction illustrates that addiction treatment systems are too often created to delay and deny care rather than support care. We can no longer afford systems of care that rely on waiting lists to ration care.

The 11 essential ingredients draw on best business practices in other industries. What makes them so good? What can we learn from them? Successful businesses offer anytime, anywhere service using technology to deliver quality services with minimal variation. Addiction treatment needs to adopt these ingredients as expected features of service delivery. Programs need to incorporate global assessments of customer (patient and family) needs and assets, with minimal or no handoffs between practitioners and levels of care using evidence-based behavioral and pharmacological therapies. Effective services engage

patients and families before, during and after treatment and use just-in-time services to provide ongoing support for recovery. Practical progress reports track patient outcomes in real time. Progressive program directors and policy makers also recognize that the financing of care is changing rapidly. Programs will be paid for performance and outcomes rather than units of care. System operations will change substantially.

We need leaders who see the opportunity for redesign and understand all of the parts of the current addiction treatment system – financing, regulation, and the complexities of health care reform and parity implementation. The programs and practitioners who apply David's essential ingredients and manipulate the multi-dimensional space of health care reform will be more likely to survive and thrive in the 21st century addiction treatment system. Challenge the status quo. Look at the strongest businesses and the products you use. Ask, "How can I be as good?" "What can I learn from them?"

Essential Ingredients as a Platform for Change

Paul M. Roman, University of Georgia

While not a "native" to the SUD treatment field, Dave Gustafson is one of the best "new friends" that addiction health services research could have ever imagined. Since my institution is overshadowed in fame and fortune (but not charisma) by the strongly resented "North Avenue Trade School," I would have never guessed that we could learn anything from an engineer. But without any doubt, Dave and his team have, through multiple creative projects, challenged much of the traditional thinking in the specialty treatment of SUDs.

My favorite of his many ideas is that the addition of a new position to an organizational chart without significant organizational expansion is usually a marker that the overall system is not working and needs to be studied; "case manager" was the example he used. I interpret that as always raising questions about interrelations within "the system" when someone asserts that more resources are needed to do the job. This is a huge idea for a specialty that has long been convinced that most if not all problems would be solved with "more" resources.

His contribution for this issue of **The Bridge** only adds to his reputation as an innovator. Dave and his laboratory family of researchers brought us NIATx, which offered a badly needed perspective when our health services research had seemed to have dove a bit too deep into the grotto of quality improvement. Dave taught us that the individual-level thinking about adoption and implementation was an inadequate perspective. We needed to think about systems and management and processes. NIATx gave us a critical context that, from my perspective, raises a host of critical questions needed to understand evidence-based practice adoption and treatment generally. Through NIATx-stimulated experiences, many treatment programs have made their first inroads in understanding how their systems do and do not work. And, practicing what he preaches, Dave and his CHESS team diffused their perspective with great effectiveness throughout the field of treatment practice.

We have before us now some more forward thinking, the results of focus group deliberations on the essential guidelines or commandments for a successful future for SUD treatment. My first reaction was that none of these ideas is controversial and bringing these ideas together in one place immediately stimulates an urge for action. But my overall reaction, after some reflection, is that while it seems we're ready for prime time, prime time is not quite ready for us. My reasoning reflects my perception of the

avalanche of forces to integrate SUD treatment into mainstream US medical care. Evaluating Dave's list of essential ingredients against that backdrop is, to me, very challenging.

Taking Dave's very first ingredient of being available when and where assistance for a SUD is needed carries me back to "The Man on the Bed," one of AA's best known graphics which demonstrates emphatically "being there when needed" and "I am responsible," albeit that within AA principles the visitors are at the bedside only because they've been invited. With a bit of irony, aren't the visitors to the man on the bed there because no one else would come....i.e. medical professionals?

So an assessment of the focus group's contribution requires some vision as to whether and how medical care in the US might be altered to implement these ideas for all forms of needed treatment, i.e. the rather insane vision that medical care will adapt systemically to offer what is needed for SUDs and in the process improve all types of care!

With the SUD treatment specialty, apparent progress is being made with the second ingredient, standardization of practice, but I feel it is more apparent than real. It's really an old idea when treatment was dominated by the rather rigidly defined Minnesota Model, the classic therapeutic community, and the methadone clinic. These programs had very standardized procedures. We now seem to be in a wonderland where all sorts of combinations and permutations of technology are allowed, as long as they don't waddle and quack like the old-timey models. So how do we get from today's encouragement of diversity and alternatives to standardization?

Moving to the third, fourth and fifth ingredients, progress is clearly being made is taking advantage of electronic technologies (right in Dave's shop), and there is minimal in-field debate about the value of comprehensive care. Good hand-offs are closely linked, but remain poorly understood from a research perspective in that they are rarely studied or the topic of an RCT.

Evidence-based practices, the perennial darling of both policy makers and researchers associated with our specialty interest, occupies the sixth slot on the list. According to the focus group, the more EBPs the better. My own efforts have been heavily directed toward this topic for more than a decade, and either I or maybe everyone seems stuck in a very non-productive paradigm.

As I have suggested before, I think that the issue is the quality of management, not EBPs. My illustrative example is that if you examine the "promotion" of EBPs from the multitude of directions

from whence these influences flow, the ideal manager seems to be the one who adopts every new EBP that comes down the pike, i.e. a fool. Some research analyses, including a few in which I have participated, include the implicit judgment of treatment center excellence associated with a greater **magnitude** of reported adoption from a stated set of EBPs.

Obviously this poses a ridiculous situation. We expect good managers to use judgment and make decisions. There is no doubt that in the real world those decisions are not going to be the same across all organizations involved in treating SUDs. Yet the EBP literature would seem to suggest some kind of "failure" when the managerial decision is (1) non-adoption, (2) adaptation (infidelity, the behavior of infidels) or the ugliest outcome of all (3) adoption followed by abandonment. "Diffusion success" seems to demand the thoughtless manager who adopts every EBP that appears, making the problem of this implicit paradigm obvious, at least to me. But from a policy viewpoint, counting EBPs that have been adopted and then calling the index a measure of quality is a bureaucrat's dream.

It seems we've talked too little and certainly spent far few research dollars on effective dissemination. An alternative to counting EBPs is to think of an effective EBP diffusion strategy as being one that places a singular clearly articulated set of facts and alternatives before the managers of treatment programs. At present promotion of EBPs comes flying from all directions, each claiming special "authority." True "authority" is going to have to be vested somewhere, perhaps in a not-yet-formed organization.

The second essential component of this alternative model is for managers to have the appropriate level of skills to evaluate evidence. The third component is for managers to completely understand the current treatment and management technologies that drive their own organizations, and how well current performance is linked with strategic goals. Finally, managers need to be able to see how proposed change would or would not make a strategic difference. Under this scenario, the outcome variable for a successful EBP "campaign" is the quality of the decision-making process that has been used to address the EBP and its interface with a particular treatment organization, not the extent of adoption or the extent of implementation of the EBP.

The remaining five of the derived ingredients offer further challenges. As with comprehensive care, the field has high collective cognizance of the importance of moving those ingredients of care into a pattern of customized delivery over time. "Assembling all the players" for this to happen would be great, but

how is it done? Achieving it through integration with primary care seems to be a trick question when one looks at the breadth and the longitudinal features of contemporary primary care. Good measurement is of course important, but is only as good as those who are given the measuring tools. Finally, pay for performance seems intuitively correct, but it both brings up all of the issues of standardization while at the same time ignoring the consistent reality that all SUD patients do not arrive in treatment at the same starting points.

I left the ninth ingredient for last, namely aiding patients' recovery in a hostile environment. There seems to be independent impetus within the "recovery movement" to address this absolutely key issue, but the movement has not been studied in any way that has gauged its impact. Within the "hostile environment," repeated and repeated studies have shown us that employment is central to long term recovery and stability. However, SUD policy leaders have allowed employee assistance programs, which once were mechanisms for reducing stigma and normalizing workplace recovery from SUDs, to operate with a very flimsy research base, to morph primarily into work-family problem orientations. There has been almost no little exploration of their massive potential to contribute to early identification of SUDs without the breach of unemployment as well as serving as gateways into "friendly" employment settings for those who otherwise struggle against stigma. Much of this stigma is a still-breathing residual of the pro-stigma campaign launched in the mid-1980s by Nancy and Ronald Reagan, and its core of "drug hatred" continues to flourish.

When he offered this piece for publication in **The Bridge**, Dave expected plenty of criticism, hopefully constructive. As activity such as the measurement work of the Washington Circle group goes forward, the Gustafson work has the potential for use as the intermediate step toward acting upon the opportunities presented by the combination of parity legislation and health care reform.

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Addis, M.E., Wade, W.A., & Hatgis, C. (1999). Barriers to Dissemination of Evidence-Based Practices: Addressing Practitioners' Concerns About Manual-Based Psychotherapies. Clinical Psychology Science and Practice, 6, 430-41.

Beidas, R.S., & Kendall, P.C. (2010). Training Therapists In Evidence-Based Practice: A Critical Review Of Studies From A Systems-Contextual Perspective. Clinical Psychology Science And Practice, 17, 1-30.

Bewick, B., Trusler, K., Barkham, M., Hill, A., Cahill, J., Mulhern, B. (2008). The effectiveness of webbased interventions designed to decrease alcohol consumption — A systematic review. Preventive Medicine, 47 (1), 17-26.

Bickel, W. K., Christensen, D.R. & Marsch, L.A. (2011) A Review of Computer-Based Interventions Used in the Assessment, Treatment and Research of Drug Addiction. Substance Use & Abuse, 46, 1-3.

Bickel, W.K., Marsch, L.A., Buchhalter, A.R., Badger, G.J. (2008). Computerized behavior therapy for opioid-dependent outpatients: A randomized controlled trial. Experimental & Clinical Psychopharmacology. 16 (2), 132-143.

Boulay, J.A. (2007). Virtual Reality Game Helps Drug Addicts Recover. Virtual Reality News and Resources, http://vroot.org/node/4677.

Box, G.E., Draper, N.R. (1987). Empirical model-building and response surfaces (p. 74). New York: Wiley and Sons.

Clinton, H. R., (1996). It Takes a Village: And Other Lessons Children Teach Us. New York: Simon and Schuster.

Delbecq, A., (1994). Innovation as a Silicon Valley Obsession. Journal of Management Inquiry, 3 (3), 266-275.

Delbecq, A., et al. (2010). A decision process model to support timely organizational Innovation. In P.C. Nutt & D.C. Wilson (Eds.), The Handbook of Decision Making (pp. 197-230). Chichester, West Sussex, England: John Wiley & Sons.

Delbecq, A., Van de Ven, A., and Gustafson D. H. (1975). Group techniques for program planning. Chicago: Scott Foresman.

Dubenske, L., Wen, K., Gustafson, D. H., et al. (2008). Caregiver needs across key experiences of the advanced cancer trajectory. Palliative and Supportive Care. 6 (3), 265-272.

Ducharme, L. J., Mello, H., Roman, P. M., Knudsen, H. K., & Johnson, J. A. (2007). Service Delivery in Substance Abuse Treatment: Reexamining "Comprehensive Care." Journal Of Behavioral Health Services & Research, 34, 121-136.

Essock, S. M., Mueser, K. T., Drake, R. E., Covell, N. H., Mchugo, G. J., Frisman, L. K., Kontos, N. J., Jackson, C. T., Townsend, F., & Swain, M. A. (2006). Comparison Of ACT And Standard Case Management For Delivering Integrated Treatment For Co-Occurring Disorders. Psychiatric Services, 57,185–96.

Fixsen, D.L., Naoom, S.F., Blasé, K.A., Friedman, R.M., & Wallace F. (2005). Implementation Research: A Synthesis Of The Literature. Tampa, FL: University Of South Florida, Louis De La Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).

Garner, B. R., Godley, S. H., & Bair, C. M. L. (2011). The Impact of Pay-For-Performance On Therapists' Intentions To Deliver High-Quality Treatment. Journal of Substance Abuse Treatment. 41, 97-103.

Garnick, D. W., Horgan, C. M., Chalk, M. (2006). Performance Measures for Alcohol and Other Drug Services. National Institute on Alcohol Abuse and Alcoholism. http://pubs.niaaa.nih.gov/publications/arh291/19-26.htm.

Ghitza, U., Sparenborg, S., & Tai, B. (2011). Improving Drug Abuse Treatment Delivery Through Adoption Of Harmonized Electronic Health Record Systems. Substance Abuse And Rehabilitation, 2, 125-131.

Gitlow, H., Gitlow, S., Oppenheim, A., & Oppenheim, R. (1989). Tools and methods for the improvement of quality. Homewood, Illinois: Richard D. Irwin, Inc.

Gustafson D, Boyle M, Shaw B, Isham, A, McTavish F, Richards S, Shubert C, Levy M and Johnson K. (2011). An E-Health Solution for People with Alcohol Problems. Alcohol Research & Health, 33 (4), 327-337.

Gustafson D. H., Hawkins R., Boberg, E., et al. (1999). Impact of patient centered computer-based health information and support system. American Journal of Preventive Medicine, 16:1-9.

Gustafson, D. H., Doyle, J., & May, J. (1972). Employee Incentive System for Hospitals. United States Department of Health, Education and Welfare. Washington: U.S. Government Printing Office.

Gustafson, D. H., Hawkins, R., Pingree, S., McTavish F., Shaw B., Chen, W., et al. (2008). Internet-based interactive support for cancer patients: Are integrated systems better? Journal of Communication. 58 (2), 238-257.

Gustafson, D. H., Shaw, B., Isham, A., Baker, T., Boyle, M., & Levy, M. (2010). Explicating an evidence-based, theoretically informed, mobile technology-based system to improve outcomes for people in recovery for alcohol dependence. Substance Use and Misuse. In Press.

Gustafson, D.H., Fryback, D.G., Rose, J., Alemi, F., Detmer, D.E., Rossmeissl, J., et al. (1983). Evaluation of multiple trauma severity indices created by different index development strategies. Medical Care, 21 (7): 674.

Haley, S., Dugosh, K. L., & Lynch, K. G. (2011). Performance Contracting To Engage Detoxification-Only Patients into Continued Rehabilitation. Journal of Substance Abuse Treatment, 40, 123-141.

Hawkins, K.A., & Sinha, R. (1998). Can Line Clinicians Master The Conceptual Complexities Of Dialectical Behavior Therapy? An Evaluation Of A State Department Of Mental Health Training Program. Journal Of Psychiatric Research, 32, 379-84.

Hein, D., Litt, L.C., Cohen, L., Miele, G.M, & Campbell, A. (2009). Preparing, Training, And Integrating Staff In Providing Integrated Treatment. In: Trauma Services For Women In Substance Abuse: An Integrated Approach. Washington DC: American Psychological Association; P. 143-161.

Herschell, A.D., Kolko, D.J., Baumann, B.L., & Davis, A.C. (2010). The Role Of Therapist Training In The Implementation Of Psychosocial Treatments: A Review And Critique With Recommendations. Clinical Psychology Review, 30, 448-466.

Hoffman, K. A., Ford, J. H., Tillotson, C. J., Choi, D., & Mccarty, D. (2011). Days To Treatment And Early Retention Among Patients In Treatment For Alcohol And Drug Disorders. Addictive Behaviors, 36, 643-647.

Hoffman, K., Ford, J. H., Choi, D., Gustafson, D., & Mccarty, D. (2008). Replication And Sustainability Of Improved Access And Retention Within The Network For The Improvement Of Addiction Treatment. Drug And Alcohol Dependence, 98, 63-69.

Institute of Medicine Committee on Redesigning Health Insurance Preformance Measures, Payment and Performance Improvement Programs (2007). Rewarding Provider Performance. Department of Health, Education and Welfare. Washington: The National Academies Press.

Jobs, S. (2010) Steve Jobs Presents new Apple iPhone 4G HD at WWDC 2010. Daily Motion. http://www.dailymotion.com/video/xdl9wb_steve-jobs-presents-new-apple-iphon_shortfilms

Kiluk, B.D., Nich, C., Babuscio, T., & Carroll, K.M. (2010). Quality Versus Quantity: Acquisition Of Coping Skills Following Computerized Cognitive Behavioral Therapy For Substance Use Disorders. Addiction, 105, 2120-127.

Mark, T. L., Levit, K. R., Vandivort-Warren, R., Buck, J. A., & Coffey, R. M. (2011). Changes In US Spending on Mental Health And Substance Abuse Treatment, 1986-2005, And Implications For Policy. Health Affairs, 30, 284-292.

Marsch, L.A. (2011). Technology-Based Interventions Targeting Substance Use Disorders and Related Issues: An Editorial. Substance Use & Abuse, 46, 1-3.

Martino, S. (2010). Strategies For Training Counselors In Evidence-Based Treatments. Addiction Science And Clinical Practice, 5, 30-40.

Martino, S., Brigham, G.S., Higgins, C., Gallon, S., Freese, T.E., Albright, L.M., Hulsey, E. G., Krom, L., Storti, S.A., Perl, H., Nugent, C.D., Pintello, D., & Condon, T.P. (2010). Partnerships And Pathways

Of Dissemination: The NIDA-SAMHSA Blending Initiative In The Clinical Trials Network. Journal Of Substance Abuse Treatment, 38, S31-S48.

Mccarty, D., Capoccia, V. A., Gustafson, D., & Cotter, F. (2009). Improving Care For The Treatment Of Alcohol And Drug Disorders. Journal Of Behavioral Health Services & Research, 36, 52-60.

Mccarty, D., Gustafson, D. H., Wisdom, J. P., Ford, J., Choi, D., Molfenter, T. Et Al. (2007). The Network For The Improvement Of Addiction Treatment (NIATX): Enhancing Access And Retention. Drug And Alcohol Dependence, 88, 138-145.

Mclellan, A.T. (2006). What We Need Is A System: Creating A Responsive And Effective Substance Abuse Treatment System. In W.R. Miller & K.M. Carroll (Eds.) Rethinking Substance Abuse. New York: Guilford Press.

Miller, G. A. (2004). Learning the language of addiction counseling. Hoboken, New Jersey: John Wiley and Sons.

Miller, W.R. & Carroll, K.M. Rethinking Substance Abuse: What the Science Shows and What we Should Do About it. (2006) The Guilford Press.

Miller, W.R., & Carroll, K.M. (2006). Rethinking Substance Abuse. New York: Guilford Press.

Miller, W.R., & Rose, G.S. (2009). Toward A Theory Of Motivational Interviewing. American Psychologist, 64, 527-537.

Miller, W.R., Benefield, R.G., & Tonigan, J.S. (1993). Enhancing Motivation For Change In Problem Drinking: A Controlled Comparison Of Two Therapist Styles. Journal Of Consulting And Clinical Psychology, 61, 455-61.

Miller, W.R., Zweben, J., & Johnsen, W.R. (2005). Evidence-Based Treatment: Why, What, Where, When, And How? Journal Of Substance Abuse Treatment 29: 267-276.

Murphy, S. A., Lynch, K. G., Oslin, D., Mckay, J. R., & Tenhave, T. (2007). Developing Adaptive Treatment Strategies in Substance Abuse Research. Drug and Alcohol Dependence, 88S, S24-S30.

Murray, E., McCambridge, J., Khadjesari, Z., White, I., Thompson, S., Godfrey, C., et al. (2007). The DYD-RCT protocol: An on-line randomised controlled trial of an interactive computer-based intervention compared with a standard information website to reduce alcohol consumption among hazardous drinkers. BMC Public Health, 7, 306.

National Institute on Drug Abuse. (2009). Principles of Drug Addiction Treatment: A Research-Based Guide. (NIH Publication Number 09-4180) Bethesda, MD: NIDA.

National Quality Forum. (2007). National standards for the treatment of substance use conditions. Washington DC.

Olmstead, T., Canning-Ball, M., Carroll, K.M., & Martino, S. (2011). Cost And Cost-Effectiveness Of Three Strategies For Training Clinicians In Motivational Interviewing. Drug And Alcohol Dependence, 116, 195–202.

Olmstead, T.A., Abraham, A.J., Martino, S., Roman, P.M. (In Press). Counselor Training In Several Evidence-Based Psychosocial Addiction Treatments In Private US Substance Abuse Treatment Centers. Drug And Alcohol Dependence.

Picard, R. W. (2010). Affective Technology and Persuasion (Keynote). Persuasive 2010, International Conference on Persuasive Technology. Copenhagen, Denmark, June 08, 2010. http://www.persuasive2010.org/files/10.Persuasive-keynote.pdf.

Quanbeck, A. R., Madden, L., Edmundson, E., Ford, J. H., Mcconnell, K. J., Mccarty, D. Et Al. (2011). A Business Case For Quality Improvement In Addiction Treatment: Evidence From The NIATX Collaborative. Journal Of Behavioral Health Services & Research, In Press.

Rakovshik, S., & Mcmanus, G. (2010). Establishing Evidence-Based Training In Cognitive Behavioral Therapy: A Review Of Current Empirical Findings And Theoretical Guidance. Clinical Psychology Review, 30, 496-516.

Rieckman, T. R., Kovas, A. E., Fussell, H. E., & Stettler, N. M. (2009). Implementation Of Evidence-Based Practices for Treatment Of Alcohol And Drug Disorders: The Role Of the State Authority. Journal of Behavioral Health Services & Research, 36, 407-419.

Rogers, E.S., Cohen, B.F., Danley, K.S., Hutchinson, D., & Anthony, W.A. (1986). Training Mental Health Workers In Psychiatric Rehabilitation. Schizophrenia Bulletin, 12, 709-19.

Scholtes, P. R. (1987). An elaboration on Deming's teachings on performance appraisal. Madison, WI: Joiner Associates.

Schulhof, N. (2007). Why the iPod Is So Successful? http://www.nathanschulhof.com/articles/whyipod.pdf.

Simpson, D.D., & Flynn, P.M. (2007). Moving Innovations Into Treatment: A Stage-Based Approach To Program Change. Journal Of Substance Abuse Treatment, 33, 111-20.

Solet D, Norvell JM, Rutan G and R Frankel. (2005). Lost in translation: challenges and opportunities in physician to physician communication during patient handoffs. Academic Medicine. 80(12); 1094-99.

Squires, D.D., Gumbley, S.J., & Storti, S.A. (2008). Training Substance Abuse Treatment Organizations To Adopt Evidence-Based Practices: The Addiction Technology Transfer Center Of New England Science To Service Laboratory. Journal Of Substance Abuse Treatment, 34, 293-301.

Thomas C, Garnick D, Horgan C, et al. (2011). Advancing performance measures for use of medications in substance abuse treatment. Journal of Substance Abuse Treatment. 40(1); 35-43.

Thompson, B. M. (2010). The Dynamic Future of FDA Regulation of mHealth. MobiHealthNews. http://mobihealthnews.com/7900/the-dynamic-future-of-fda-regulation-of-mhealth/.

Van de Ven, A. H. (1980). Problem Solving, Planning and Innovation, Part I: Text of the Program Planning Model. Human Relations, 33 (10), 711-40.

Van de Ven, A. H. (1980). Problem Solving, Planning and Innovation, Part II: Speculations for Theory and Practice. Human Relations, 33 (11), 757-79.

Van de Ven, A. H., Polley, D., Garud, R., & Venkataraman, S. (1999). The innovation journey. Oxford Press.

Vandrey, R., Stitzer, M. L., Acquavita, S. P., & Quinn-Stabile, P. (2011). Pay-For-Performance in a Community Substance Abuse Clinic. Journal of Substance Abuse Treatment, 41, 193-200.

Wantland, D., Portillo, C., Holzemer, W., et al. (2004). The Effectiveness of Web-Based vs. Non-Web-Based Interventions: A Meta-Analysis of Behavioral Change Outcomes. Journal of Medical Internet Research, 6 (4), e40.