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Using collective impact in support of communitywide teen pregnancy prevention initiatives

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ABSTRACT

The Roots to Fruit of Sustainable Community Change (R2F) is a community development model for mobilizing efforts to effectively address teenage pregnancy and other complex, controversial, social issues. The model is grounded in the authors’ hypothesis that community engagement guided by a high-performing infrastructure leads to sustainable community change progressing through a measurable sequence. This article describes the model, the change sequence and their measures, and the integration of the collective impact framework. It also extends the collective impact framework by describing the R2F operationalization that facilitates long-term ownership of change through intentional, deep community participation. In addition, it demonstrates how collaborative approaches, including collective impact, can be used to address controversial complex social issues, such as teen pregnancy. Finally, it provides findings from the use of the new measures in an annual evaluation survey of communitywide teen pregnancy coalitions designed to support their continuous system learning and improvement.

The Roots to Fruit of Sustainable Community Change (R2F) is a community development model for mobilizing efforts to effectively address teenage pregnancy and other complex, controversial, social issues. It evolved from the authors’ efforts to develop a simple, practicable tool for assessing a constellation of community development factors known to affect teen pregnancy prevention and adolescent sexual health care in the USA. One factor within the constellation is collective impact with its five conditions, including a shared agenda, common measurements, continuous communication, mutually aligned activities, and backbone organization support (Kania & Kramer, 2011).

Previous collaborations in community development initiatives related to teen pregnancy prevention, supported by an extensive literature review, led the authors to hypothesize that community engagement guided by a high-performing infrastructure leads to sustainable community change that progresses through a measurable sequence. The R2F model integrates the collective impact five conditions with other salient theoretical frameworks to present a measurable approach to producing long-term community change.
An early criticism of the collective impact approach questioned whether it was practical for addressing the complex community problem of teen pregnancy, which is often controversial (Carson, 2012). This article describes the development of the R2F framework, its implementation in a statewide teen pregnancy prevention program in Iowa, the creation of an evaluation survey measuring R2F factors and processes, and summaries of the results of the first wave of an annual study in which the survey is used.

The challenge of teen pregnancy

Births resulting from unintended pregnancies are associated with adverse maternal and child health outcomes, such as delayed prenatal care, premature birth, and negative physical and mental health effects for children (Guttmacher Institute, 2015). The economic costs of unintended pregnancy are also of significant national concern with total public expenditures nationwide estimated at $21.0 billion in 2010 (Sonfield & Kost, 2015). Pregnancies among teenagers, the majority of which are unintended, are of special concern among public health professionals in the USA. Fully 88% of births to teens (15–17 years) are unintended pregnancies (Committee on Adolescence, 2014). Teen pregnancy and birth rates in the USA are substantially higher than those in other Western industrialized nations (Singh & Darroch, 2000).

Preliminary data for 2014 show that births to teens are projected to have fallen to a new historic low of 24.2 per 1000 (Hamilton, Martin, Osterman, & Curtin, 2015). As this recent data show, teen pregnancy rates nationwide are decreasing, but continued focus on prevention is necessary, lest rates rise again (Hamilton & Ventura, 2012; Martin, Hamilton, Osterman, Curtin, & Mathews, 2015).

In Iowa, where this study was conducted, 43% of 23,000 pregnancies in 2010 were unintended. The unintended pregnancy rate was 39 per 1,000 women aged 15–44. Sixty-one percent of the unintended pregnancies resulted in birth, 24% were aborted, and 15% were fetal loss (Kost, 2015). The teen birth rate in Iowa in 2012 was 24.1 per 1000 teens aged 15–19; the national average for teen births was 29 per 1000 in 2012. This represented 2532 births to Iowa teen mothers in 2012.

A recent report highlighted that teens in rural areas are at higher risk of childbearing than teens in metropolitan areas (Ng & Kaye, 2015). Of special concern – both nationwide and in Iowa – is the disproportionately higher teen birth rate for minority youth. The rate for Latina teenagers in Iowa was 68 per 1,000, 64 per 1,000 among African-American females, and 48 per 1,000 among American Indian females (EyesOpenIowa, 2014).

Governmental response to the problem of teen pregnancy

In the USA, the Centers for Disease Control and Prevention (CDC) is a principal government player in efforts to reduce teen pregnancy. To keep pace with emerging public health challenges in support of Healthy People 2020, CDC initiated the Winnable Battles effort in 2010 to achieve rapid, measurable, large-scale impact on seven public health priorities using known, effective strategies. Preventing teen pregnancy is among the seven “winnable battles” that CDC chose for this concentrated attention (Centers for Disease Control & Prevention (CDC), 2014).
As part of the President’s Teen Pregnancy Prevention Initiative, CDC partnered with the US Department of Health and Human Services Office of Adolescent Health to support nine state- and community-based organizations and five national organizations. Grantees were charged by CDC to reduce the rates of teen pregnancies and births within youth populations at highest risk by increasing youth access to evidence-based programs and increasing linkages between teen pregnancy prevention and community-based clinical services. This grant-funded project is known as **Integrating Services, Programs, and Strategies Through Communitywide Initiatives (CWI): The President’s Teen Pregnancy Prevention Initiative** (Centers for Disease Control & Prevention (CDC), 2015).

The project was initiated/funded in 2010 and ended in September of 2015. Among five key components of the CWI project is **Community Mobilization and Sustainability**. CDC reported that community mobilization supports the sustainability of teen pregnancy prevention efforts by empowering community members and groups to take action to facilitate change. This component includes mobilizing necessary resources, disseminating information, generating support, and fostering cooperation among public and private sectors in the community. (CDC, 2015)

**Attention to sustainability and normalization in coalition development**

It has been long established that community-based initiatives have the capacity to continue after funding is withdrawn and that the broader community environment is an essential consideration in sustained interventions (Shediac-Rizkallah & Bone, 1998). Various conceptualizations of sustainable models have been offered. Hanleybrown, Kania, and Kramer (2012) suggest that diverse work groups, using a variety of infrastructures, can form around specific strategies to generate a collective impact on community issues. Kania and Kramer (2013) expand on the cross-sector coalition model, noting that collective impact produces organic – or “emergent” – results as opposed to predetermined ones.

Forming coalitions that allow for this dynamic and sustained impact presents a host of challenges, including member recruitment and retention (Saunders, Sabri, Huberman, Klaus, & Davis, 2011). Partnerships that rely on existing community assets, in addition to the creation of new ones, predict better outcomes in terms of lasting relationships (Goldberg, Frank, Bekenstein, Garrity, & Ruiz, 2011). Butterfoss and Kegler (2006) note that strong leadership is an essential component in developing ties with other community organizations.

Cramer, Atwood, and Stoner (2006) add that ongoing evaluation and member satisfaction are also crucial. Foster-Fishman, Berkowitz, Lounsbury, Jacobson, and Allen (2001) discuss the importance of conflict resolution capacity in sustaining coalitions. Using community coalition action theory, Kegler, Rigler, and Honeycutt (2010) acknowledge the importance of existing community attributes, such as demographic characteristics and community norms, as well as agencies’ histories of collaboration, in establishing sustainable coalitions.

Collectively, these insights were used in developing the current community engagement intervention with teen pregnancy prevention programs in the State of Iowa. The Iowa Department of Human Services (Iowa DHS) has been authorized and funded by the Iowa Legislature to provide teen pregnancy prevention programming statewide since 1987. Today, the program is called the Community Adolescent Pregnancy Prevention (CAPP) program (EyesOpenIowa, 2015).
Through this program, local grantee organizations develop community-specific interventions to address sexual and/or non-sexual risk and protective factors in support of teen pregnancy prevention. An important factor in the successful implementation of interventions is the formation of collaborative groups or coalitions within communities. Effective collaborative efforts can bring more resources together to address community problems (Kania, Hanleybrown, & Splansky, 2014).

Another essential role of the coalitions is to build broad-based support for the implementation of interventions through community engagement. As the coalitions build and increase support, address barriers to implementation, and effectively answer resistance to the intervention, they create a community environment in which intervention and, ultimately, change have a greater chance of success. Indicators of increased community support suggest an increased likelihood of effective intervention implementation and goal achievement. Though the Iowa DHS has not established statewide teen pregnancy reduction goals, a public university in Iowa provides outcome evaluation that is grantee and program specific.

The intended effects of these interventions are evident in the continuing drop in teen births in Iowa, mirroring those of the nation. The most recent “Kids Count” data book for Iowa shows a significant reduction in teen births from 2000 to 2013: the percentage of births to teens fell by 35.4% in that time. By comparison, it fell by 44.4% in the nation (Child & Family Policy Center, 2014).

The Iowa CAPP program focuses less on rates of births to teens (though the Kids Count data clearly provide the supporting information) and more on documenting the work of local coalitions in creating a community environment that supports, embraces, and owns the CAPP grantee’s work (EyesOpenIowa, 2015). This interest in community support for teen pregnancy prevention is consistent with the previously cited CDC’s findings documenting the association between effective community mobilization of teen pregnancy prevention and decreased rates of teen pregnancy nationwide (CDC, 2015).

The R2F model has an indirect effect on teen pregnancy by creating a community environment that supports effective interventions in schools, clinics, and other community sites. It helps CAPP grantees address and measure progress on the community engagement factors and processes that facilitate long-term community support of teen pregnancy prevention. These factors and processes were measured in a survey sent to all CAPP coalition members in March 2015. The results of that survey are summarized later in the article.

R2F model

The R2F (Figure 1) presents an integrated model for facilitating long-term community change. It draws upon and integrates a psychosocial model of community readiness (Chilenski, Greenberg, & Feinberg, 2007), the collective impact five conditions framework (Hanleybrown et al., 2012; Kania & Kramer, 2011; Turner, Merchant, Kania, & Martin, 2012), inclusive approaches to decision-making and governance (Buck & Villines, 2007; Guo & Saxton, 2010), complexity theory (Begun, Zimmerman, & Dooley, 2003), diffusion of innovation theory (Rogers, 2003), and the authors’ original description of the stages of community transition.

The model identifies a constellation of root factors and processes that promote the establishment of a diverse, broad-based, participatory, and high-performing infrastructure. This infrastructure, in turn, facilitates and supports community engagement factors and processes.
Figure 1. Roots to Fruit of Sustainable Community Change model.
(stages of community transition) that result in long-term, sustainable community change on important, and even controversial, social issues. The changes are seen in impacts on social attitudes, community policies, practices, systems, and even group or individual behaviors.

Communities are complex adaptive systems that give rise to complex social problems (Plsek & Greenhalgh, 2001). Teen pregnancy is a complex problem requiring adaptive solutions (Heifetz, Kania, & Kramer, 2004). The situation can be further compounded by intractable ideological conflict (Klaus, 2013). Effective solutions are those that emerge from collaborative efforts that bring many perspectives and diverse viewpoints to bear on the problem and are willing to innovate, experiment, and adapt to find the most likely answers for the current situation (Kania & Kramer, 2013). The R2F model describes an ecosystem in which a community change effort can be incubated, take root, and grow to fruition through an emergent process to more effectively address an adaptive challenge like teen pregnancy.

**R2F factors and processes**

The R2F model does not prescribe solutions but, rather, identifies the factors and processes that allow collective, collaborative community change efforts and solutions to emerge. Each is described below and was measured in the survey to document its effect in the Iowa CAPP program.

**Community readiness for change**

Important for any factors and processes that contribute to community development is the readiness of a community to engage in collaborative work leading to change. Community readiness is indicated by a history of having successfully worked together to deal with important social problems previously, a willingness to work together on the current issue, and the presence of individuals within the community who are able to provide the needed leadership (Chilenski et al., 2007).

Community readiness is a root factor and process that informs community change efforts but is not a pre-qualification for attempting change. Though community readiness may be viewed as an advantage, it is also affected through the community engagement process. Understanding a community’s readiness is important since it informs the breadth, depth, intensity, regularity, and dosage of engagement efforts. Therefore, community readiness was considered an important factor to measure in the current study.

**Community participation**

Change is more likely to occur, be more effective, and endure longer if those most affected by a problem have significant, meaningful roles in solving it (Shediac-Rizkallah & Bone, 1998). Persons with current personal experience with the social problem being addressed are referred to as context experts in the R2F model (Zimmerman, 2014). Community change efforts benefit from participation by a diverse group of individuals in the community as defined by the usual markers: race, gender, socioeconomic status, age, sexual orientation, etc.

The R2F model extends this conceptualization of diversity to include a balanced participation (50/50) of context experts and content experts. Content experts are professionals, providers, funders, and officials in the community possessing technical competencies and
resources who can be brought to bear on the problem (Zimmerman, 2014). Important to the R2F ecosystem of sustainable community change is that intentional and thoughtful efforts are made to bring context experts and content experts together in a leadership collaboration where the expertise of each is equally valued and considered in decision-making.

**Leadership collaboration**

Collaborative leadership defines, fuels, steers, and leads the community change effort in R2F. The leadership collaboration is a diverse group of actors that includes equal, or nearly equal, numbers of context and content experts. It has four critical tasks. First, it establishes the collective impact five conditions framework: shared agenda, common measurements, continuous communication, mutually aligned activities, and backbone organization support (Kania & Kramer, 2011).

Second, it ensures equitable shared leadership by both context experts and content experts through inclusive decision-making, such as consensus or similar methods that allow all voices to be heard, honored, and considered (Buck & Villines, 2007; Guo & Saxton, 2010). Such decision-making methods contribute to creating a high level of relational trust that will support the ability of the collaboration to move forward more quickly and nimbly (Kania et al., 2014; Wagner & Muller, 2009).

Third, it identifies and/or establishes the backbone organization which is responsible for the everyday concerns and work of the leadership collaboration: guiding vision and strategy, supporting aligned activities, establishing practices related to shared measurement, advancing policy, mobilizing funding, and building public commitment (Turner et al., 2012).

Finally, the leadership collaboration shares leadership responsibility with the backbone organization in conducting community engagement activities. The backbone organization, which is accountable to the leadership collaboration, leads by empowering community members to take personal action in community engagement. It does this by identifying, planning, facilitating, and managing the logistics of community engagement strategies and opportunities. The leadership collaboration and other community members, however, personally take action and participate in the work of community engagement (Guo & Saxton, 2010). In the R2F model, the direct role in community engagement by members of the leadership collaboration is vital to facilitating widespread community change as it creates ownership of the effort.

These three factors (community readiness for change, community participation, and leadership collaboration) are seen as root processes for establishing a high-performing infrastructure to operationalize the R2F community engagement strategy. Though it must be a high priority when a community change initiative is organizing for action, establishment of this infrastructure is not usually the only priority. Ongoing maintenance of the infrastructure is also necessary to achieve high performance and continued effectiveness.

**Continuous system learning and improvement**

Continuous system learning and improvement is also an essential root process that informs and supports the maintenance efforts of the infrastructure. Continuous system learning is needed to ensure that the leadership collaboration is an emergent self-organizing group and is effective in its community change work (Morgan, 2006). The backbone organization
takes the lead in facilitating continual learning with the leadership collaboration. The shared measures of the collective impact five conditions framework, identified by the leadership collaboration, provide an important indicator of progress toward achieving the common agenda.

Continuous system learning and improvement, however, is concerned with monitoring the quality with which the processes are being conducted within the R2F system. Informal learning occurs as the backbone organization leads the leadership collaboration in simple assessments, such as post-event debriefs and discussions of lessons learned from both failures and successes. In addition to monitoring and informal simple assessment, the authors created a formal approach to system learning through an online evaluative survey developed for the R2F model and discussed below. The authors assert that the richness of continuous system learning and value of the lessons learned are affected by the level and quality of community participation in the initiative. Therefore, diverse community participation, that is balanced between context experts and content experts who feel equally empowered as decision-makers, yields more useful, actionable insights in any assessment of the infrastructure functioning and community transition progress.

**Community conversations and engagement activities**

Working in partnership, the leadership collaboration and backbone organization undertake a variety of community engagement activities to raise awareness and educate others about the social problem. Community engagement creates the best possible climate for the community development initiative to grow and succeed by increasing the perception of value for the development effort (Rogers, 1995). It raises awareness of the problem to be solved, educates to create common understanding and agreement on the problem, identifies solutions that have broad community support, and locates individuals and groups within the community that either support or challenge the community change initiative.

Community engagement is understood in R2F to include both conversations and activities. The conversations may be individual, small group, or large group, and they may be informal or more formally organized and facilitated (Born, 2012). Community engagement activities may also include efforts to reach large masses of people through social media and traditional marketing efforts.

The leadership collaboration and backbone organization assess and select community engagement activities within the parameters of budget, time, and other contextual factors. Once selected, the backbone organization manages the logistics of the community engagement activities and members of the leadership collaboration personally participate. When the community becomes more educated about the problem and the emergent solutions, the community transition has begun.

**Stages of community transition**

Change occurs at the community level as the perception of value for the change grows throughout the community (Rogers, 1995). Community transition happens in four stages, beginning with *awareness raising and education through community conversations and engagement*. Over time, through continuous community conversations and engagement activities, the leadership collaboration becomes identified with the social problem and
associated with likely solutions to the problem. Therefore, it is increasingly perceived as the “go to” group on the issue being addressed. This growing perception legitimates the leadership collaboration building greater community trust, increased authority to address the problem, and increased access to essential resources.

During the awareness/education and legitimization stages, community engagement increases the number and intensity of supporters among both individuals and groups in the community. Ideally, support should come from all community sectors and groups, including context experts and others with lived experience of the problem.

However, despite the increased support, there usually are those who are slow to support the effort or even withhold support altogether (Rogers, 2003). The reasons may be ideological or practical. For example, an ideological objection to addressing the problem of teen pregnancy through school-based prevention programs is a belief that sex education is the domain of parents only.

A practical objection, on the other hand, may be an argument against the use of limited public resources to address a teen pregnancy problem that affects fewer young people than other types of social problems. Also, some of those temporarily withholding support may be resource gatekeepers observing whether the community will really “own” the problem and solution before they commit additional resources to it. Nonetheless, a steady growth in the number of community members who perceive the value of the change, coupled with the perceived legitimization of the leadership collaboration, will lead to a transformation of many who previously withheld support for the effort.

No community development initiative is likely to have support from all community members; yet, when transformation occurs, a wider release of resources can be observed and the road to normalization becomes much easier. Normalization is the point at which the solution to the problem has become embraced and owned by the community. It is also being woven into the fabric of the community through institutionalization into systems, policy, and practice. These four stages of community transition – awareness/education, legitimization, transformation, and normalization – represent the factors and processes of community ownership of a problem and its solution.

The R2F model emerged over nearly 25 years of the authors’ collaborative work and research in the field of teen pregnancy prevention. The model has been refined through trial and error practice in operationalizing the model. The next section describes the operationalization of the R2F model and monitoring progress in community change using the continuous system learning evaluation conducted among CAPP coalition members.

**Operationalizing the R2F model for teen pregnancy prevention in Iowa**

Since fall 2013, the R2F model has been operationalized and refined as part of the Iowa DHS CAPP program described earlier. In a configuration that the authors describe as a nested backbone structure, the Iowa DHS has funded 20 grantees to conduct teen pregnancy prevention in 19 communities during a six-year period from 2013 to 2019. The nested backbone term refers to how the Iowa DHS organized and implemented the grant program.

One grantee, EyesOpenIowa (EOI), an independent non-profit statewide teen pregnancy prevention organization, has been funded by Iowa DHS to provide monitoring, training, technical assistance, and ongoing support to the other 19 community grantees on behalf of the state agency. As such, EOI functions as a “super backbone” to the other CAPP grantees.
Each of the 19 other CAPP grantees has assumed the role of a backbone organization to local coalitions, the “leadership collaboration” in the R2F model, that are required of CAPP program communities. The coalitions are expected to use community engagement strategies to build public will and support for each grantee’s teen pregnancy prevention work.

Backbone organizations are ideally identified and empowered by the leadership collaboration (Kania & Kramer, 2011). In the CAPP model, the funder (Iowa DHS) has identified grantees as the backbone organizations. While this approach is not fully consistent with the collective impact framework, it is similar to how other government-funded initiatives have approached collaborative projects (CDC, 2015). Therefore, the authors felt this was a realistic and typical situation for operationalizing the R2F model.

Working with EOI staff, overview training in the R2F model was created and five peer coaches were trained to provide technical assistance to CAPP project directors in 2013. The peer coaches were selected based on previous experience in coalition building and teen pregnancy prevention, geographical diversity, and willingness to commit the additional time required over the six-year life of the grant program.

Peer coaches are expected to participate in a monthly one-hour telephone coaching call with two or three CAPP grantee project directors to whom they are assigned and a two-hour monthly conference call with the authors and the other coaches to discuss the progress of grantee coalitions and engage in problem-solving. Through July 2015, 13 conference calls have been held in addition to several peer group meetings in person.

Progress in coalition building and community engagement coaching efforts has been monitored through written reports submitted by peer coaches following their grantee coaching calls and through verbal reports on the peer coach conference calls. In addition, community grantees are required by the Iowa DHS to describe their coalition and community engagement progress in written annual reports. These have all proven to be sources of rich qualitative data for assessing and improving the operationalization of the R2F model and informing the development of the annual survey. Three major themes have emerged, as described below.

**Comfort with complexity-based approaches to community change**

Collective impact is a collaborative approach in solving complex social issues, and its foundation in complexity theory and use of emergence are distinguishing characteristics (FSG, 2015; Kania & Kramer, 2013). Understanding and embracing a complexity theory framework represent a significant and challenging paradigm shift for many practitioners working in teen pregnancy prevention. Complexity theory is counter-intuitive in the field of teen pregnancy prevention where there has been a strong, continuous movement toward the use of pre-defined interventions that have been scientifically proven to impact some risk factors related to teen pregnancy (Zimmerman, 2014). It is within a context of intense focus on evidence-based solutions that many teen pregnancy prevention practitioners are most comfortable.

**Intuitive but not simplistic**

Qualitative feedback from grantees and peer coaches shows the R2F model is highly intuitive and easy to understand. This may be because the R2F model presents practitioners with a different paradigm that prefers “simple rules” (Zimmerman, 2014). Simple rules are principles
that provide guidance with regard to the overall outcomes yet do not give specific instructions, which are typically based on previous experience, on how to attain them. Simple rules are rooted in the complexity idea that solutions are emergent and will be unique to each situation (Kania & Kramer, 2013; Zimmerman, 2014).

For example, prior to monthly peer coach conference calls, the authors prepare guidance documents that coaches use to inform their work with grantees, including a conversation guide for the month’s coaching call. These documents are written to provide simple rules for community engagement and help peer coaches facilitate the emergence of specific solutions with their grantees that may work in their communities. Over time, some peer coaches have become increasingly comfortable with the ambiguity inherent working in complexity, but it is less clear that the grantees are making similar shifts.

Working effectively with complex social systems and problems requires going beyond checklists, steps, formulas, and best practices to allow better, innovative, tailored practices to emerge. Nonetheless, grantees and peer coaches raise the question, “Can you just tell us what to do?” Answering this question poses a difficult challenge. On the one hand, it would be easy to answer the question with prescriptive tools like those common in evidence-based practice. However, this simplistic reduction of the R2F model runs counter to its complexity theory underpinnings. On the other hand, providing no answer is to ignore the model altogether, allowing it to languish and die from non-use. Consistent with the simple rules approach, the authors chose to address the question by responding with six questions that align with six simple rules implicit in R2F, to provide guidance to the coalition leadership. The questions and rules are:

• What tells us that our community is ready for this change? (A basic openness to change within a community is a key in initiating and achieving sustainable change.)
• Who needs to be “at the table” and how do we get them there? (Near equal numbers of context experts and content experts participants are needed to create community ownership.)
• How do we work in genuine, trusting partnership to change our community for good? (Meaningful participation by both context and content experts is facilitated through equitable, shared decision-making processes that build trusting partnership).
• What are the actions we will take together to engage the whole community? (The leadership collaboration, in partnership with the backbone, identifies, agrees upon, leads, and participates in community engagement efforts that are broad, deep, regular, intense, numerous, and iterative enough to be effective).
• How will we know when the community is changing? (Community change can be observed and documented through four stages of transition: awareness/education, legitimization, transformation, and normalization).
• What do we need to do to keep getting better in our efforts and how do we know it? (Coalitions and other community collaborations benefit from monitoring their progress in becoming high-performance teams through both informal and formal assessment processes).

Peer coaches use these questions as a basic framework for their coaching calls. Coaches iteratively engage grantees on each of these questions as the need emerges in the course of each coaching call. The peer coach is trained to facilitate coaching conversations that allow the emergence of specific answers and solutions to the questions. This occurs through the
exploration of ideas, suggestions, and recommendations for how grantees can respond and may be willing to try. The coaching call, therefore, helps grantees practice emergent problem-solving in the face of complexity, rather than merely applying predefined best practice solutions developed for other problems in other communities at other times. This approach supports the emergence of context-sensitive, tailored, community-owned solutions.

**Participation of context experts**

Collaboration in coalitions is familiar to many CAPP grantees since this approach has been required by the Iowa DHS for several years. However, the typical coalition model has focused on bringing together content experts with few or no context experts, except in separate advisory groups with little or no decision-making role. Grantees ideologically embrace the value of meaningful participation by context experts, yet have difficulty identifying and engaging them within their communities. Some have resorted to finding individuals who can serve as both content and context experts, but this is not fully consistent with the concept of context expert.

For example, a peer coach described a grantee who had reported recent success in finding and recruiting a dual content/context expert. The individual was a former teen mom who had become a successful university professor. While applauding the grantee’s intentions and efforts, the peer coach had to help the grantee see how this individual could not be considered a context expert because she had become a content expert by virtue of the passage of time and an atypical, dramatic change in life circumstances that had removed her from the immediate context of teen pregnancy.

One of the biggest challenges to engaging context experts is that many content experts prefer coalitions to meet during weekdays within their work hours. Context experts may not find it convenient or economically viable to miss work during the work week to attend meetings. Similarly, youth involvement is limited by school, after school jobs, and extracurricular school activities that make it difficult for them to participate.

**Continuous system learning and improvement survey**

The first wave of an annual continuous system learning and improvement survey was launched in March 2015. The survey was developed to monitor and measure progress on the R2F factors and processes. Since effective community engagement is associated with a reduction in teen pregnancy (CDC, 2015), positive changes observed in the R2F factors and processes over time, indicating increasing community acceptance, can both give indications of likely project success and inform continuous project improvement. Its development, method, and summary results from coalition members are described below.

**Instrument development**

Years of collaboration on community development initiatives related to teen pregnancy prevention and an extensive literature review led to a hypothesis that community engagement guided by a high-performing infrastructure brings about sustainable community change that progresses through a measurable sequence. A wide variety of tools and research to identify the most salient scales, concepts, and measures related to community engagement/
mobilization and sustainable community change were reviewed. The literature review informed the development of each of the eight scales used in the instrument. The stages of community transition (awareness/education, legitimization, transformation, and normalization) are represented by four scales in the survey. Another three scales (readiness, formation, and evaluation) were constructed to represent community readiness for change, leadership, and coalition functioning. An eighth scale measures overall “satisfaction” of the coalition members with their experience with the coalition and grantee.

In the current study, Cronbach’s alpha test of internal consistency was used to measure the reliability of each scale: community readiness (6 items, \( \alpha = .74 \)); formation (17 items, \( \alpha = .93 \)); evaluation (4 items, \( \alpha = .80 \)); community conversations/engagement (11 items, \( \alpha = .93 \)); legitimization (6 items, \( \alpha = .90 \)); transformation (7 items, \( \alpha = .93 \)); normalization (6 items, \( \alpha = .83 \)); and satisfaction (3 items, \( \alpha = .77 \)). All scales used in this study met the generally agreed definitions of acceptability. The concepts associated with each survey item were drawn from a body of research that demonstrates the face validity of each item. The measures for each of the scales were informed by existing measures, but all are original for the survey tool. Some items in the survey are followed with open-ended questions to seek further information or clarity about participants’ responses.

**Methods**

The success and sustainability of leadership groups are affected by the perception of their members (Kramer et al., 2005). Therefore, the unit of analysis for the survey was the membership of the CAPP grantee coalitions. The survey used a non-probability, purposive sample comprised of individual coalition members whose names and email addresses were obtained from CAPP grantee project directors. The survey was conducted using Qualtrics, after obtaining Institutional Review Board approval from Eastern University. The survey was sent on 16 March 2015, to 166 members of local CAPP coalitions in Iowa, was closed on 20 April 2015. By the end of the survey, after sending multiple reminders to potential respondents, 99 valid questionnaires were returned representing a 60% response rate, considered very acceptable in survey research studies.

**Summary findings**

**Participant characteristics**

Most coalition members participating in the survey identified as female (\( n = 89, 91\% \)) and White/Caucasian (\( n = 90, 91\% \)), and 90% had earned a college, graduate, or professional degree. More than half (54%) of participants were between the ages of 36 and 55. None were under age 21, and 29% were between 21 and 35 years of age. Most identified as professionals serving in non-profit organizations and agencies (content experts) and very few self-identified as simply interested or concerned community members (context experts). Of those organizations and agencies represented by the participants, 84% were from community-based non-profits, health services, or social services.

Respondents reported being quite involved in their coalitions, with an average (mean) of 17 months of participation and attending an average (mean) of 10 meetings during a period of 22 months. Approximately 25% reported some challenges with meeting participation, most frequently citing scheduling and location issues.
Scale findings

Each scale used a five-point Likert response set of either “Strongly Disagree (1) to Strongly Agree (5)” or “Never (1) to Very Frequently (5).” Based on mean scale scores for all eight scales, the average scores were, in order from highest (5 points) to lowest: Satisfaction ($M = 4.06$), Formation ($M = 4.00$), Transformation ($M = 3.69$), Evaluation ($M = 3.67$), Community Readiness ($M = 3.66$), Conversations/Engagement ($M = 3.33$), Normalization ($M = 3.00$), and Legitimization ($M = 2.88$). Items within each scale were analyzed to more fully understand the scale mean scores. The scales are discussed in order of the RF2 model: from community readiness to normalization. The discussion of “satisfaction” is provided last.

Regarding community readiness, it was not surprising to find coalition members did not perceive their communities to be fully “ready” to address teen pregnancy prevention ($M = 3.66$). While a high degree of readiness prior to the start of a project is desirable, community readiness also tends to be affected by community engagement.

With regard to formation ($M = 4.00$), coalition member responses indicated a strong, clear belief in coalition work and a priority on formation among CAPP grantees during the previous 21 months. However, they were not certain their coalitions had the right combination of members to change their communities. Respondents frequently mentioned, for example, the absence of context experts within the community (especially youth, males, and members of minority groups). Respondents also said they were unsure whether leaders had emerged internally from among coalition members through a participatory decision-making process and expressed uncertainty that the coalition had yet come together as an effective leadership collaboration.

In terms of evaluation ($M = 3.67$), coalition members could not fully agree that their coalitions were conducting self-assessment to improve the coalition. Items in the conversations/engagement scale indicate coalitions have undertaken some community engagement activities, yet to date, they do not appear to be sufficient nor appropriately targeted to legitimize the coalitions as the trusted authority on teen pregnancy prevention in their communities ($M = 3.33$). Much of the engagement process was identified as a personal responsibility of members, rather than a coalition sponsored effort.

The low legitimization scale score ($M = 2.88$) was expected in light of findings in the conversations/engagement scale items. Effective community engagement precedes recognition as a legitimate and trusted authority on teen pregnancy prevention; hence, the legitimization scale score should rise as community engagement becomes more effective.

The transformation and normalization scales were slightly higher than expected: $M = 3.69$ and $M = 3.00$, respectively. These may be explained, in part, by two factors. First, transformation and normalization seem to be occurring among those individuals and groups well known to the coalition members and which were already largely supportive of the issue. However, it does not appear to be occurring to the same extent within the broader community context. The group of known and supportive individuals and groups seemed to be the primary target of engagement based on an analysis of individual scale items.

Second, the satisfaction scale was the highest scored of all eight scales in the survey. The items contributing to that high score indicated coalition members clearly felt it was worth their time and effort to be involved with the coalition, and they felt supported by the grantees organization. This high sense of satisfaction may have caused survey respondents to see transformation and normalization in a more positive light.
The transformation scale provides insight to how effective community engagement is related to the outcome of reducing teen pregnancy. Sixty-three percent of participants reported they agreed or strongly agreed with the transformation scale item, “Our coalition has effectively overcome some barriers to teen pregnancy prevention in our community.” On follow-up, when asked, “What barriers have you helped break down in your community?”, three themes emerged from participants’ responses to the open-ended question. First, they described gaining access to public schools for both teen pregnancy prevention programs and health services. Second, they reported providing broader community access, including in some businesses, to condoms and contraceptive services. Third, they indicated some success in addressing negative attitudes and stigma within the community, even among parents, with regard to adolescent sexual risk behavior and teen pregnancy. As previously described, an important function of coalitions is to create an environment of support for the implementation of interventions through community engagement. By effectively addressing barriers to implementation, which include extending support for interventions and answering objections to them, coalitions create the conditions in which interventions can succeed.

Other qualitative responses to survey questions offered suggestions for creating a better “mix” of the coalition members, put forward ideas for improving coalition functioning, and assessed the relationship between the coalition and the CAPP grantee, and described barriers to teen pregnancy prevention that remained in the community.

Recommendations

Several recommendations are forthcoming from these findings for all CAPP coalitions to consider. First, coalitions need to continue striving to reach a “50/50” split of context and content experts in their coalition. Second, coalitions should identify and more consistently utilize equitable decision-making processes to create more meaningful participation and ownership. Third, coalitions have to more clearly define goals. Fourth, coalitions should establish operational policies and practices that contribute to higher levels of coalition functioning. Fifth, they must give greater care in orienting new members to their roles and responsibilities as coalition members. Sixth, coalitions need to focus on community engagement specifically as it relates to the topic of teen pregnancy. Seventh, community engagement requires a focus on individuals and groups that coalition members perceive as being harder to reach. Eighth, coalitions need to identify and address the barriers to community transition which are perceived to be the easiest and quickest to break down first, and then move on to the more challenging barriers. Ninth, and finally, coalitions will benefit by establishing and implementing a plan for regular self-assessment. These recommendations will be considered by the funder (Iowa DHS) and the program manager (EOI) as they plan training and technical assistance for the next year of the grant program.

Conclusions

Despite recent progress in the USA to reduce teen pregnancy, teenagers in high-risk populations remain a significant concern. The R2F type of approach can make an important indirect contribution to community efforts to reduce teen pregnancy by generating ongoing support for interventions. Community engagement guided by a high-performing infrastructure leads to sustainable community change that progresses through a measurable sequence. The R2F
model identifies an ecosystem in which solutions are incubated and grow through participatory, collective, emergent processes. Even more, progress in the factors and processes that contribute to community change is measurable. Community development collaborations can use the measures to assess and improve their efforts, thereby contributing to the desired community change.

This article makes five contributions to an increased understanding of collective impact with regard to community change. First, it illustrates an application of collective impact with the controversial topic of teen pregnancy prevention. Second, it describes the use of a model that integrates the collective impact five conditions framework in multiple communitywide efforts within a nested backbone configuration. Third, it describes the stages of community transition (awareness/education, legitimization, transformation, and normalization) that operationalize three important tasks of a collective impact initiative: build public will, advance policy, and mobilize funding. Fourth, the article describes an integrated approach in which the collective impact five conditions framework is essential and can be applied to a variety of other social issues using community engagement as an important strategy for achieving sustainable change. Finally, this article introduces and describes an evaluation and its findings that can be used to facilitate continuous system learning and improvement of collective impact initiative.

Disclosure statement
No potential conflict of interest was reported by the authors.

References


