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## Teen Pregnancy: Ending the Cycle

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The issues that underlie the challenge of dealing with unplanned teen pregnancy are well studied and the evidence that continues to emerge from well done, rigorous investigation demands our collective attention and requires our individual, family, community and national resolve to address. In planning this issue and reviewing the outstanding contributions from the many authors who worked diligently to craft informative, evidence based articles and commentaries, the question is raised: “haven’t we read, seen and heard this material before?” Like Bill Murray’s character, Phil Connors, in the 1993 movie, “Groundhog Day” we appear to be doomed to relive February 2 over and over again each morning at 6am! In the film, everyone in the small town relives February 2 in exactly the same way each day. Bill Murray’s character is aware of the replication but is unaware of how to break the seemingly endless cycle. Those of us who want to confront the problem of unplanned teen pregnancy and the challenges such pregnancies entail for the young mother, the infant, the family and the larger community also have the sense that we keep reliving the cycle. The question has been clear for some time, why do we continue to struggle with an issue around children when the policy solutions are so clear? Moreover, why is this discussion happening over and over again like Groundhog Day? Armed with the material in the fourteen articles and commentaries contained in this special issue of the Journal of Applied Research on Children, we can take proactive, informed and effective steps to move forward from February 2 to a new day on February 3. While we take a decidedly Texas-oriented view, the material is applicable to our broader national population.

First, let’s take stock of the clear facts before us:

- Unplanned teen pregnancy is a significant social and public health issue in the state of Texas as well as nationally.
  - Each year, three in ten girls get pregnant at least once by the age of 20 and Texas accounts for 12% of the nation’s teen births.<sup>1,2</sup>
  - Teen childbearing costs taxpayers at least \$10.9 billion annually.<sup>3</sup>
- Unplanned teen pregnancies pose unique health and social issues for the young women who become pregnant and for the infants who are delivered.

- We know for example that young women who become pregnant are more likely to drop out of high school, earn less money, rely on public assistance programs, and have increased public sector health care costs.<sup>4</sup>
- We also know that infants born to teen mothers are more likely to grow up in a single parent home, experience abuse and neglect, be in foster care, be incarcerated, earn less money and have increased public sector health care costs.<sup>5</sup>
- Approaches to combating the problem of unplanned teen pregnancy have been studied and the academic, public policy and public health literature are replete with evidence based approaches that repeatedly confirm ways to create an informed population. These evidence based approaches have the effect of reducing unplanned pregnancies and their subsequent toll on the lives of those who experience this 100% preventable challenge.
- We as a community and as a nation have uniformly failed to embrace the reality of the above facts and continue to be “concerned” but not willing to examine the evidence and implement effective solutions. Like townspeople in the Groundhog Day movie, we appear to have a collective unawareness that we’ve done this before. We appear doomed to remain uninformed and to keep doing what we are doing, over and over again, with the obvious result that such futile efforts will produce.

In 1987, the National Research Council, as part of the prestigious US National Academy of Science, formed the Panel on Adolescent Pregnancy and Childbearing which issued an authoritative call to action entitled: “Risking the Future: Adolescent Sexuality, Pregnancy and Childbearing.” This panel, far from being locked into a Groundhog Day spirit of inaction, reviewed 15 years worth of scientific study which culminated in a national call to action. They recommended redoubling our efforts to study the effectiveness of various proposed solutions to this problem and then to implement the effective solutions once the evidence showing which ones were efficient, effective and feasible emerged. A quarter century later, looking at the words written by these notable experts

may be helpful in building the case of where we've been and where we need to go so that when the alarm clock goes off at 6am it will be our unplanned teen pregnancy equivalent of February 3, and not the endless repeat of February 2:

“In the past 15 years, there has been dramatic growth in the number and variety of interventions aimed at preventing teenage pregnancy and child-bearing ... Virtually all represent strong underlying assumptions concerning the nature of the problem and what constitute the most appropriate and effective approaches to solving it. Preventive interventions are programs aimed at helping young women avoid unintended pregnancy and childbearing. They are of three general types<sup>6</sup>:

- those that impart knowledge or influence attitudes,
- those that provide access to contraception, and
- those that enhance life options.

The first two categories represent traditional approaches to pregnancy prevention through increased knowledge and access to services ... They are aimed at enhancing young people's ability to avoid early childbearing, and they are intended to directly influence the process of decision making by adolescent girls (and boys) at the time of choice ... Preventive interventions in the third category are intended to influence sexual decision making indirectly by developing and strengthening adolescents' "motivation to avoid early childbearing."<sup>7</sup> They are based on the assumption that broadening opportunities, especially through educational enhancement, will provide meaningful alternatives to childbearing."<sup>8</sup>

A number of the articles in this issue summarize a robust literature that was in large part a response to this call to action two and a half decades ago. Additionally, several of the authors have brought forth their own investigations that provide additional information supporting the need for the three general types of programs identified so many years ago. So what do we know now?

1. The majority of parents both specifically in Texas and generally in the US want medically accurate sexual health education taught in the schools as part of a comprehensive approach to this important issue. (See [Dispelling the Myth](#))
2. Evidence-based educational programs exist, have been tested, and implementation strategies are available for motivated

communities and school districts to adopt and effectively address the need for a comprehensive educational approach to adolescent sexual health. (See [Sexual Health Education from the Perspective of School Staff](#) and [Replicating Sexual Health Programs in School-based Settings](#))

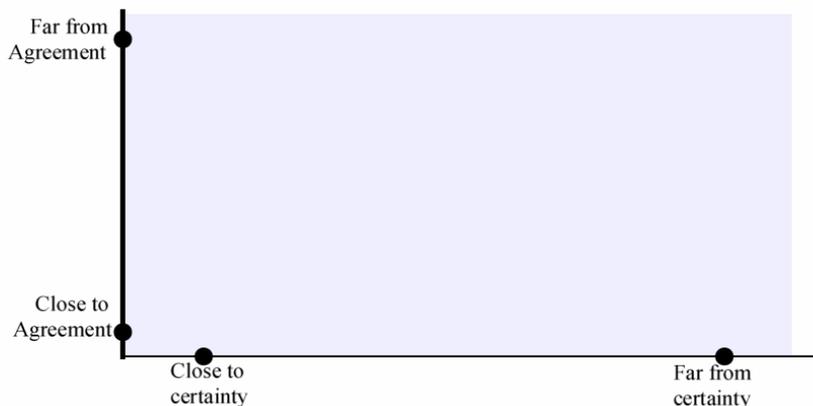
3. Texas, with a record of mixed performance in terms of addressing unplanned teen pregnancies, has much to learn from its big sister California. Despite being more populous and equally ethnically diverse, it has been relatively successful among States in the US in addressing this challenge. (See [A Tale of Two States](#))

In the inaugural issue of the Journal of Applied Research on Children, the paradigm of complex adaptive systems was introduced as a way of gauging how to make the policy process more effective when it confronts complicated but essential human challenges to health and well being. Complexity science and the models surrounding complex adaptive systems helps us to understand the unpredictability in the policy efforts, such as how we would work towards reducing unplanned teen pregnancy that contrasts with the predictability typically seen in simple mechanical systems. We recognize that human actors, some with power some without, some with evidence others with none, and some with open minds and others with pre-determined agendas, are all active in a policy debate as complicated as teen pregnancy reduction. So while most people in our communities across the nation care about children and families, our path to ensure the health and well-being of teens who become pregnant is filled with diverse opinions, heated political battles, and occasional innovation along with frequent missed opportunities to effectively address the problem head-on in an evidence-based manner.

In our original description we discussed the graphic representation of how to apply the complex adaptive systems paradigm to a policy debate using Roger Stacey's matrix from which we see two operating principles that shape decision making in a policy framework.<sup>9,10</sup> One operating principle describes the level of professional agreement on a course of action related to the issue at hand that ranges from high to low. The other principle describes the level of certainty of a given outcome based on that course of action. When these principles are graphed against each other

on an x and y axis, a number of sectors or zones emerge. Figure 1a below demonstrates the two principles graphed against each other and is used with permission from Brenda Zimmerman's extensive work on the practical use of this matrix book called *Edgeware*<sup>11</sup> (and we thank her once again for generously sharing it for this piece). Figure 1b, further defines the zones on this graphic that occur with varying levels of agreement and certainty. In the lower left corner of Figure 1b, one can see that some issues have a great deal of agreement and evidence to assure certainty of a given outcome. The best example of this ideal situation where there is agreement and acceptance of the evidence related to outcome would be a simple policy such as a school-based food program. When one feeds a hungry child, almost all experts would agree that the likelihood of success in school that day for that child increases. This area is referred to as the zone of certainty.

Figure 1a: Stacey Matrix



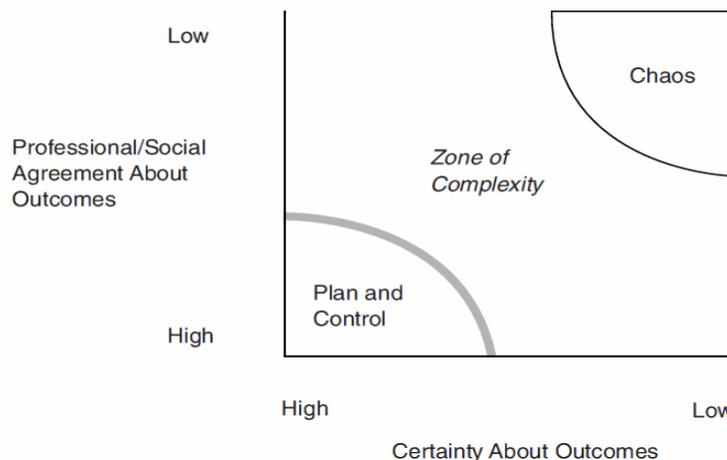
Used with permission from: Zimmerman B. *Ralph Stacey's Agreement & Certainty Matrix*. *Edgeware Aides*. Plexus Institute.

[http://www.plexusinstitute.org/edgeware/archive/think/main\\_aides3.html](http://www.plexusinstitute.org/edgeware/archive/think/main_aides3.html)<sup>11</sup>

In looking at unplanned teen pregnancy, while we should be closer to the zone of certainty as we see with the food program example above, clearly we are not. Agreement on the steps forward remains relatively low despite the evidence that has emerged over the past several decades. Thus, when it comes to unplanned teen pregnancy reduction, we as a nation (and for those of us who live in Texas, we as a state), regrettably find ourselves solidly in the zone of complexity. We find ourselves in this

ambiguous position mainly because of the lack of agreement on moving forward, even though evidence as has been summarized and presented in this Journal issue makes the certainty of what needs to be done quite clear. At least, because there is a body of evidence, we have moved out of the zone of chaos!

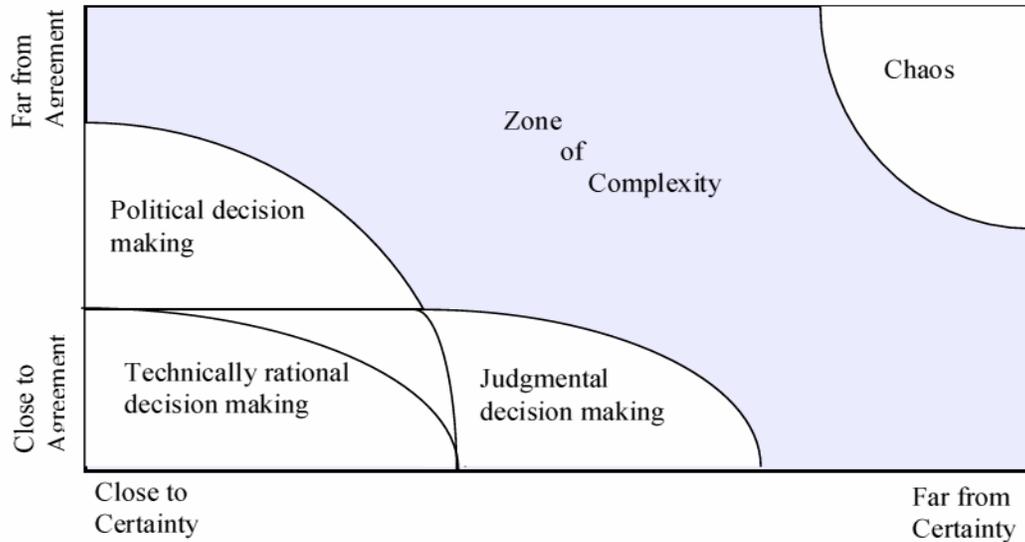
Figure 1b: Stacy Matrix further defined



From: Plesk P. Redesigning Health Care with Insights from the Science of Complex Adaptive Systems. Appendix B. Crossing the Quality Chasm: A New Health System for the 21<sup>st</sup> Century. Committee on Quality of Health Care in America. Institute of Medicine. Washington, DC: National Academy Press; 2001. p 325.<sup>12</sup>

In Figure 2 then, we can see what a community or society needs to do when there is agreement that something needs to be done, but not certainty about exactly what needs to be done. According to Zimmerman, in this scenario “judgmental decision making” is necessary on the parts of leaders, policy makers and those who seek to act in the best interest of the community. Merriam-Webster’s dictionary defines judgment as: “the process of forming an opinion or evaluation by discerning and comparing.”<sup>13</sup> We would endorse this view as well, and would call upon those reading these articles contained in this issue to form an opinion on what we need to do in this zone of complexity by reviewing the evidence that is presented, comparing it to one’s set of preconceived beliefs and then making an open-minded discernment about what the facts actually say and what would benefit the teens who are at risk for becoming pregnant and for the infants who may be born in this manner.

Figure 2:



Adapted from: Zimmerman B. Ralph Stacey's Agreement & Certainty Matrix. Edgware Aides. Plexus Institute  
[http://www.plexusinstitute.org/edgware/archive/think/main\\_aides3.html](http://www.plexusinstitute.org/edgware/archive/think/main_aides3.html)<sup>11</sup> Used with permission

So, do we as individuals, policy makers, professionals, family members, community participants and citizens look at the facts and embrace effective action? In *Groundhog Day*, Bill Murray's character eventually breaks the cycle of awakening at 6 am to find the same day repeated by enhancing his connectedness to the townspeople he initially disdained. By moving past his self-centeredness and pre-conceived notions of what it meant to be from a small town, Bill Murray's character became increasingly aware of the hopes and dreams of the townspeople that he was now surrounded by. He became increasingly concerned about their individual circumstances and was able to find ways to help people, to see value in their rescue, and to contribute to the strengthening of the community that went beyond his own concerns and needs. Our nation's teens deserve no less. We need to have the clarity of purpose to voice an understanding of the evidence based steps we need to take to build and implement effective programs. The evidence is increasingly clear in terms of what will work, now we just need to make a "judgment" to agree and then to act. When we founded *The Journal of Applied Research on*

Children, it was with the belief that good data and scientifically based research around the issues impacting the well-being of our children could indeed give us direction in the area of public policy. The data are clear when it comes to teen pregnancy, but policy wise we also are faced with myth, faith-based assumptions, and intuition. This issue of the Journal should make it abundantly clear that our public policy making community and our faith community should together embrace the irrefutable data and work together to implement the clear policy solutions available to end hardship for so many of our children, and indeed the children of those children.

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