

Results and Lessons Learned from a Youth Pregnancy Prevention Community Intervention in South Texas

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Introduction

Youth aged 15-19 are reported as being the most vulnerable to teen pregnancy, Sexually Transmitted Infections (STI's), multiple partners, and other risks associated with sexual activity. In 2018, the total United States (U.S.) birth rate was estimated at 17.4 per 1,000 for females aged 15-19 [1]. The trend in declining birth rates in the U.S., even among the youth is detailed in Table 1. Between 2016 and 2021, while the overall rate in females the U.S. dropped (13.9 per 1,000), the birth rate was 20.3 per 1,000 for 2021 among adolescents in Texas [2]. The birth rate for all females aged 15-19 was still higher in Texas than in most states (25.3 per 1,000) for 2018 [1]. Hispanic youth (females 15-19) disproportionately impacted (34.4 per 1,000) for 2018 [1].

Table 1: Reported U.S. Birth Rate*, National Vital Statistics, 2016 to 2021

Year	U.S.- All Races, 15-19	U.S.- Hispanic, 15-19
2021	13.9	21.1
2020	15.0	23.0
2019	16.7	25.3
2018	17.4	26.7
2017	18.8	28.8
2016	20.3	31.9

*per 1,000

Adolescents (ages 15 to 24) made up nearly half of the 26 million new STI's for 2018 [3]. According to 2021 Centers for Disease Control and Prevention (CDC) surveillance data, nearly half of the reported U.S. cases of syphilis, gonorrhea, and chlamydia were in adolescents and young adults (ages 15-24) [4]. More specifically, adolescents and young adults (AYA) accounted for 57.7% of all chlamydia cases reported in the U.S. [4]. Females 15-19 shared the second highest-burden of new cases behind the 20-24 age group [4].

In a 2004 study, 89% of sampled 14 to 19-year old Mexican Americans living in rural South Texas were sexually active [5]. In a mixed methods study, findings highlight the additional barriers that rural Latino youth face in terms of accessing sexual health services [6]. Not surprisingly, research [7] demonstrates the need for evidence-based interventions focused on the needs of the Latino youth in rural communities.

Project RUSH (Realistic Understanding of Sexual Health) was an innovative community intervention developed to educate high school youth and their families on sexual risks and promote healthy decision-making. Project RUSH was delivered to schools and community centers throughout five counties in South Texas: Aransas, Bee, Kleberg, Nueces, and San Patricio.

The Making Proud Choices (MPC) evidence-based curriculum was used. The program is approved by the U.S. Department of Health and Human Services [8]. The effectiveness has been recently validated in a cluster randomized trial among 9th and 10th graders in 4 U.S. cities [9]. The MPC curriculum has been implemented in other settings [10, 11]. However, to date, MPC has not been evaluated in Hispanic youth in the rural setting.

The aims are: 1) to describe attitudes, beliefs, and self-reported practices among the youth; and 2) discuss the challenges and benefits of designing and implementing the educational intervention framed with community-based participatory research (CBPR) principles.

Methods

A community needs assessment was conducted prior to the delivery of the intervention in 2018 in four of the five service counties. Community stakeholders (schools, parents, the youth, community partners) were engaged in contextualizing the approach.

A formative, process, and outcome evaluations were performed for RUSH. The formative evaluation was conducted in the first year of program implementation and focused on establishing project merit, maintaining fidelity to the program and adaptation of guidelines, and ensuring feasibility and appropriateness to target population. A mixed methods approach was used to collect quantitative and qualitative baseline data and guide the implementation of RUSH.

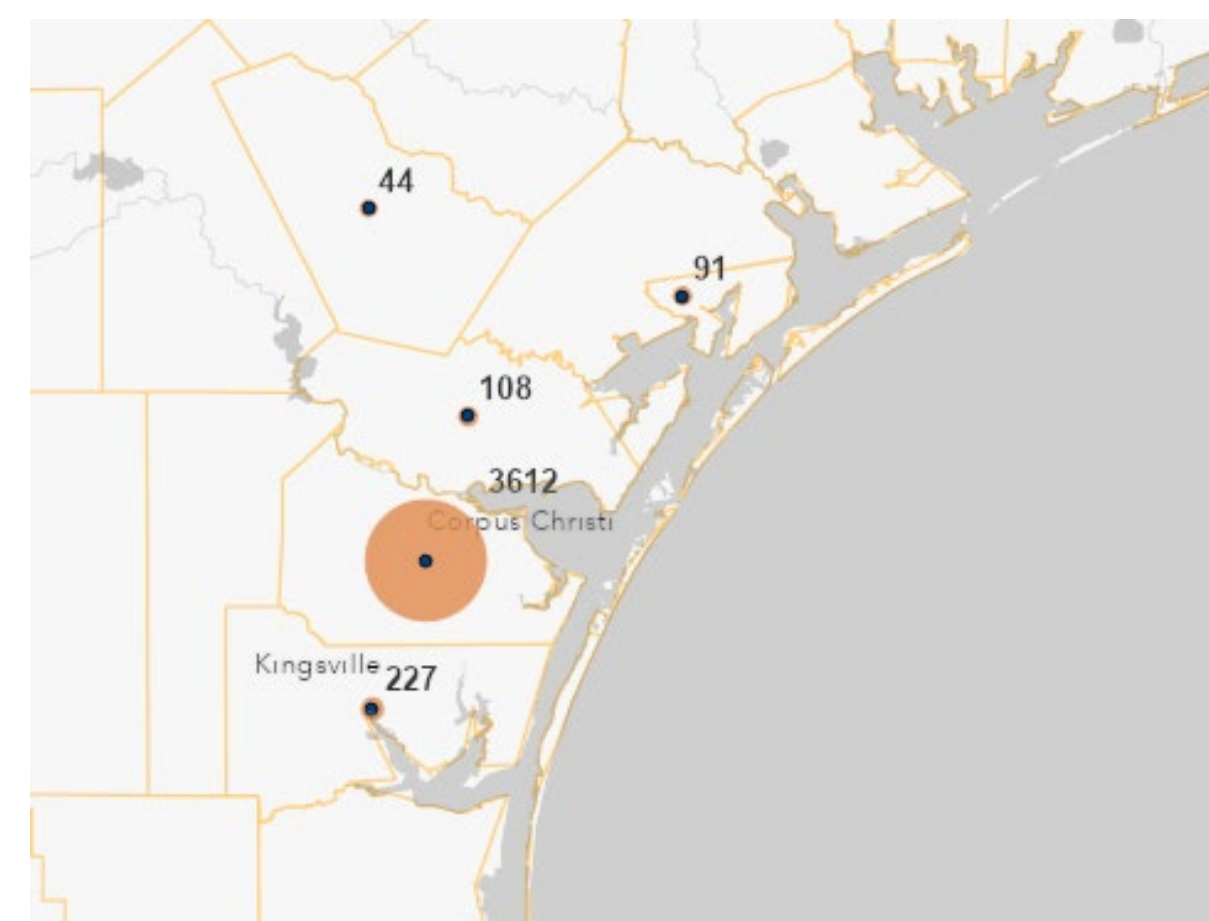
A pilot study was conducted while obtaining IRB approval.

The educational intervention consisted of multi-site, multi-sessions between January, 2022 through April 2023. A cross-sectional pre/post study design was used to matched eligible youth. The self-administered questionnaire contained items related to attitudes, practices, and behaviors related to sexual practices.

A convenience sampling approach was used for eligible participants (youth aged 15-19 and with residency to any of the five service counties). Informed consent was obtained.

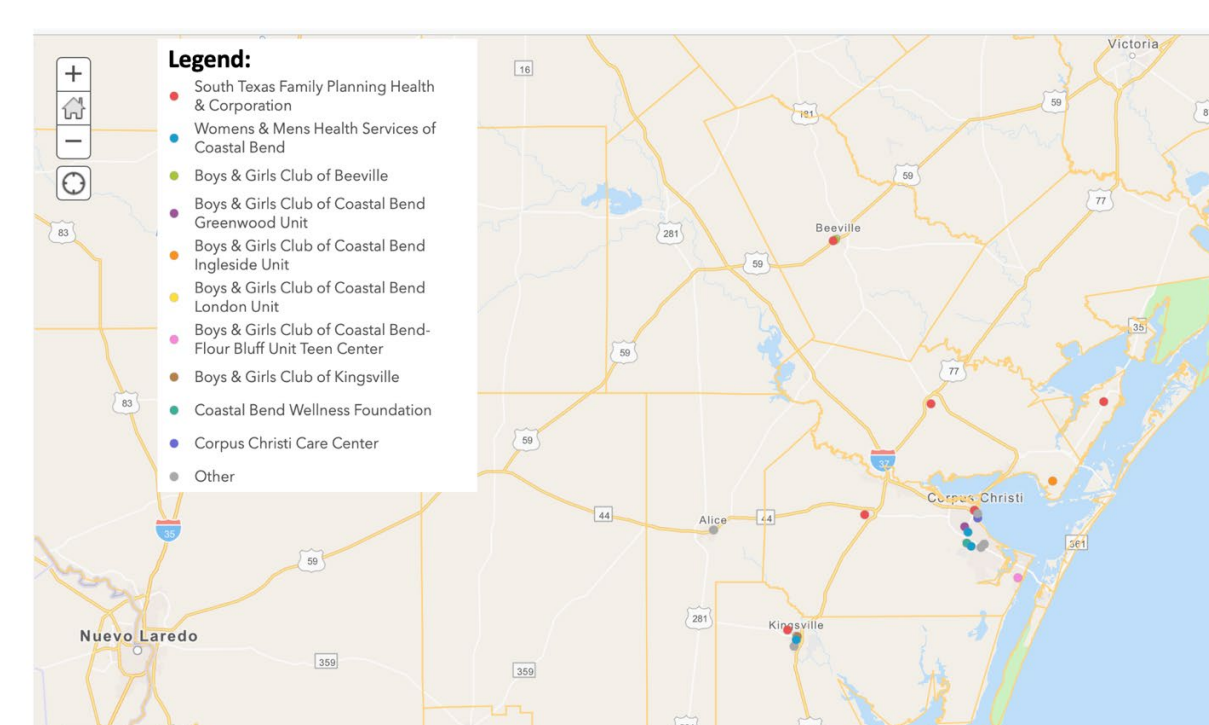
Chi square and Fisher's exact test were used.

Figure 1: Geomapping of New Cases for Chlamydia and Gonorrhea (2018)



The community needs assessment provided a snapshot of not just the latest trends in STI's, but also where the most infections were reported (Figure 1).

Figure 2: Location of Community Resources



The locations of relevant community resources was also mapped to share with the stakeholders as part of the engagement process (Figure 2).

Results

Table 2: Participant Demographics

Variable	Pre-Assessment* Participants, N= 46 (%)	Pre and Post** Participants, N= 112 (%)
Year of Participation		
Year 1 (2022)	8 (17.4)	30 (26.8)
Year 2 (2023)	38 (82.6)	82 (73.2)
Age		
Mean	16.2	16.2
Median	16.0	16.0
Range	[13, 20]	[13, 26]
Standard Deviation	1.5	1.7
Gender		
Male	22 (47.8)	48 (42.9)
Female	22 (47.8)	55 (49.1)
Transgender	1 (2.2)	6 (5.4)
Does not Identify/ Other	1 (2.2)	3 (2.68)
Hispanic/LatinX		
Yes	41 (89.1)	88 (78.6)
No	5 (10.9)	16 (14.3)
No Response	-	7 (6.3)
Had Children (Indicated #)		
Yes (at least 1)	5 (10.9)	2 (1.8)
None	41 (89.1)	110 (98.2)
County of Residence		
Nueces	30 (66.7)	80 (71.4)
San Patricio	4 (8.9)	5 (4.5)
Kleberg	1 (2.2)	4 (3.6)
Bee	-	3 (2.7)
Aransas	-	4 (3.6)
County not specified	10 (22.2)	16 (14.3)

*Only includes participants who completed the Demographics and Pre-Assessment

**From Participants that completed both the Demographics, Pre-Assessment, and Post-Assessment, Pre-assessment includes participants that have not completed the post-assessments

Table 3: Selected Items from Matched Questionnaire Responses

Item	Pre*	Post*	P-value
How they would feel about having sex in the 3 months			
Strongly disapprove	11	7	
Disapprove	9	8	
Neither	33	37	
Approve	31	31	
Strongly Approve	28	29	
			<0.05
Condoms help prevent pregnancy			
Strongly disagree	2	3	
Disagree	5	1	
Neither	31	10	
Agree	39	49	
Strongly agree	32	48	
No response	3	1	
			<0.05
Condoms help prevent STI's			
Strongly disagree	4	2	
Disagree	5	2	
Neither	23	12	
Agree	48	42	
Strongly agree	30	53	
No response	2	1	
			<0.05
Condoms help prevent HIV			
Strongly disagree	5	3	
Disagree	6	3	
Neither	23	12	
Agree	47	41	
Strongly agree	28	51	
No response	3	2	
			<0.05

Discussion

Overall, the input and engagement from community stakeholders helped refine the implementation of RUSH. MPC, though validated previously, still presents a challenge as curriculum. COVID-19 initially impacted the project's ability to implement the project in schools. Based on the pandemic, many of the schools continue to experience staff shortages. Recruitment was challenging. Additionally, Texas 87th Legislative Session made updates to School Health Advisory Councils (SHAC) requirements which has made it more difficult for human sexuality curriculum to get approved.

Though a change was observed (collectively) for educating the youth, additional research, community engagement, and further analyses are needed to assess long term and sustained changes in behavior and how that might translate to pregnancy and STI's among the youth in rural South Texas.

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