

# The Focus on Youth Prevention and Education Research Programme

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## ABSTRACT

Like many developing or transitional countries affected by the HIV epidemic, The Bahamas has been deeply committed to HIV and sexually transmitted infection reduction and continues to make great strides in controlling the epidemic within its boundaries. Encouraged by the impact of the Focus on Youth Caribbean (FOYC), a school-based HIV/AIDS prevention programme and its parenting component on Grade 6 and Grade 10 students and their parents, a team of researchers from The Bahamas and the United States sought to implement a similar programme at a national level, while simultaneously evaluating factors that impact the sustainability of sexual risk-reduction programmes like FOYC. This paper describes five research projects conducted in The Bahamas between 1998 and 2016 and includes a list of over 40 published research articles.

## INTRODUCTION

The Focus on Youth (FOY) research programme consisted of five research projects whose objective was to evaluate the efficacy and sustainability of the impact of Focus on Youth Caribbean (FOYC) curriculum. FOYC is an evidence-based education methodology that emphasizes life skills training, and uses interactive exercises to teach and reinforce behaviours which reduce risks for HIV/STI transmission and teen pregnancy.

The Stop/Options/Decision/Action decision-making model was woven throughout FOYC to provide guidance and practice in problem solving with a focus on acquiring factual information on sexual health; skills in

consequential thinking and purposeful action and understanding the role of values when making decisions. Multiple exercises in effective communication emphasize the use of verbal and non-verbal behaviour to resolve conflict, negotiate and use refusal skills for coping with peer pressure, particularly sexual pressure.

Key investigators for the first four projects were:

*Co-principal Investigators:* Hon. Dr. Perry Gomez, Minister of Health, Nassau, Bahamas and Dr. Bonita Stanton, Founding Dean, School of Medicine, Seton Hall University, former Vice Dean of Research, School of Medicine, Wayne State University, Detroit,

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Michigan;

*Research Manager/Investigator:* Lynette Deveaux, School Psychologist, Ministry of Health/Ministry of Education;

*Investigator/Assistant to the Coordinator:* Dr. Sonja Lunn;

*Data Managers:* Nanika Brathwaite, Statistician, Ministry of Health and Maxwell Poitier, Statistician, Ministry of Health.

*Funding Agency:* National Institutes of Health (NIH), Washington, D.C.

### **Pilot Project 1: HIV/AIDS Risk-Reduction Intervention for Adolescent Girls in The Bahamas (1998-2001)**

The study aimed to assess whether the U.S.-based programme could be adapted to Bahamian culture to teach adolescent females the skills required to make intelligent decisions about sex and deter them from prematurely becoming sexually active. The results showed that at 12-month follow-up, the intervention group had higher knowledge; sexually active youth in the intervention group were statistically more likely to have used a condom at last intercourse and intended to use a condom in the future. Additionally, the intervention group had greater self-efficacy to negotiate or refuse sex.

### **Project 2: Adolescent Risk-reduction in The Bahamas: Values, Peers and Parents (2004-2009)**

The purpose of this research project was to assess the efficacy of FOYC when paired with the parent-training programme, Caribbean Informed Parents and Children Together (CImPACT). The research project tracked Grade 6 students and their parents over a four-year period. The results, at 24 months post-intervention, demonstrated a sustained positive effect in increasing HIV knowledge, perception of the effectiveness of condoms and abstinence as well as condom use intentions among the intervention group (Gong, J., Stanton, B., Lunn, S., Deveaux, L., Li, X., Marshall, S., Brathwaite, N. V.,

Cottrell, L., Harris, C., & Chen, X., 2009).

Participants: 1,360 students, 1,193 parents, and 60 Grade 6 teachers were trained as facilitators and monitored.

### **Project 3: Evidence-Based Multi-Level Risk Reduction for Bahamian Mid-Adolescents (2008-2015)**

Although the results from Project 2 indicated that through 24 months post-intervention, FOYC delayed risk progression, analysis of the 36-month follow-up indicated that this effect had started to wane, and risk behaviors of the control and intervention cohorts began to rise sharply. These findings contributed to the research at the senior high school level, which was designed to identify an effective sexual risk-reduction curriculum which could be delivered to senior high school students and parents.

Results showed improved prevention knowledge, condom use intention and perceived condom self-efficacy, as well as a decrease in reported pregnancy among CImPACT+FOYC participants. Additionally, students who received both interventions (at Grades 6 and 10) had the greatest increase in condom-use skills. Students who received FOYC only in Grade 6 had the greatest increase in intention to use protective behaviors. Inclusion of parents as part of the HIV risk reduction effort also conferred additional protective benefits for both students and parents.

Participants: 2,575 students, 1,826 parents attended the parenting sessions and 53 Health and Family Life Education teachers in the high schools were trained as facilitators and monitored during the implementation of FOYC.

**Project 4: Fidelity and Outcomes of National Implementation of FOYC+CImPACT in The Bahamas (2010-2016)**

As a result of the success of the intervention at the primary and senior high school levels, it was important to ensure sustainability of the FOYC+CImPACT interventions particularly during Grade 6. Project 4 assessed the factors that impacted the implementation and sustainability of evidence-based programmes like FOYC within institutions such as the Ministry of Education.

Research findings to date show that teachers' perceptions of the importance of the FOYC intervention, and level of comfort with FOYC curriculum workshop attendance were positively related to fidelity of implementation; this was consistent with the results of prior studies. Teachers' perceptions of the importance of HIV prevention and self-confidence in teaching FOYC were potential modifiable factors related to programme delivery. High quality implementation of FOYC in Grade 6 was significantly related to student outcomes at six thru 24 months post-exposure.

Participants: 181 Grade 6 teachers throughout The Bahamas were trained and monitored: 5,711 Grade 6 students completed the baseline questionnaires. Similar to Projects 2 and 3, the impact of exposure to FOYC was tracked through Grade 9 via student questionnaires.

**Project 5: Evaluation of the Sustained Impact from an Intervention Delivered During Adolescence through to Young Adulthood (2013-2016)**

*Principal Investigator:* Dr. Clemon George, Faculty of Health Sciences, University of Ontario Institute of Technology, Oshawa, Ontario;

*Co-principal Investigator:* Dr. Bo Wang, Department of Pediatrics, Wayne State University, Detroit, Michigan;

*Co-principal Investigator and Research Coordinator:* Lynette Deveaux, School Psychologist, Ministry of Health/Ministry of Education, Nassau, Bahamas;

*Data Manager:* Nanika V. Brathwaite, Statistician, Ministry of Health, Nassau, Bahamas.

This project evaluated the long-term effect of FOYC through young adulthood. Researchers conducted a cross-sectional survey of health risk behaviors among young adults from four socio-demographic subgroups: college students, technical students, young adults at specific work venues, and young adults living in areas with high rates of unemployment. The project is ongoing and data are presently being analyzed.

Participants: 1266 young adults, between the ages of 18-22 years from the island of New Providence, Bahamas.

## RESEARCH PAPERS PUBLISHED BY THE FOCUS ON YOUTH TEAM

Throughout the life of the Focus on Youth research project, the team produced papers that were published in scholarly journals. Many of these articles have been published in open-access journals. More than 40 articles are included in this list, which is sorted by year of publication.

### 2006

Yu, S., Clemens, R., Yang, H., Li, X., Stanton, B., Deveaux, L., Lunn, S., Cottrell, L., & Harris, C. (2006). Youth and parental perceptions of parental monitoring and parental adolescent communication, youth depression, and youth risk behaviors. *Social Behavior and Personality: An International Journal*, 34(10), 1297-1310(14). <http://dx.doi.org/10.2224/sbp.2006.34.10.1297>

### 2007

Cole, M., Stanton, B., Deveaux, L., Harris, C., Lunn, S., Cottrell, L., Clemens, R., Li, X., Marshall, S., & Bain, R. M. (2007). Latent class analysis of risk behaviors among Bahamian youth: Relationship between values prioritization and latent class. *Social Behavior and Personality*, 35(8), 1061-1076. <http://dx.doi.org/10.2224/sbp.2007.35.8.1061>

Cottrell, L., Yu, S., Liu, H., Deveaux, L., Lunn, S., Bain, R. M., & Stanton, B. (2007). Gender-based model comparisons of maternal values, monitoring, communication, and early adolescent risk behavior. *Journal of Adolescent Health*, 41(4), 371-379. <http://dx.doi.org/10.1071/SH07040>

Deveaux, L., Stanton, B., Lunn, S., Cottrell, L., Yu, S., Brathwaite, N., Li, X., Liu, H., Marshall, S., & Harris, C. (2007). Reduction in human immunodeficiency virus risk among youth in developing countries. *Archives of Pediatrics & Adolescent Medicine*, 161(12), 1130-1139. <http://dx.doi.org/10.1001/archpedi.161.12.1130>

Liu, H., Yu, S., Cottrell, L., Lunn, S., Deveaux, L., Brathwaite, N. V., Marshall, S., Li, X., & Stanton, B. (2007). Personal values and involvement in problem behaviors among Bahamian early adolescents: A cross-sectional study. *BMC Public Health*, 7(135), 1-9. <http://dx.doi.org/10.1186/1471-2458-7-135>

Yu, S., Deveaux, L., Lunn, S., Liu, H., Brathwaite, N., Li, X., Cottrell, L., Marshall, S., & Stanton, B. (2007). At greatest risk: Pre-and early adolescent Bahamian youth experiencing anal intercourse. *International Journal of STD & AIDS*, 18(6), 396-401. <http://dx.doi.org/10.1258/095646207781024784>

### 2008

Yu, S., Marshall, S., Cottrell, L., Li, X., Liu, H., Deveaux, L., Harris, C., Brathwaite, N., Lunn, S., Stanton, B. (2008). Longitudinal predictability of sexual perceptions on subsequent behavioral intentions among Bahamian preadolescents. *Sexual Health*, 5(1), 31-39. <http://dx.doi.org/10.1071/SH07040>

### 2009

Chen, X., Lunn, S., Deveaux, L., Li, X., Brathwaite, N., Cottrell, L., & Stanton, B. (2009). A cluster randomized controlled trial of an adolescent HIV prevention program among Bahamian youth: Effect at 12 months post-intervention. *AIDS and Behavior*, 13(3), 499-508. <http://dx.doi.org/10.1007/s10461-008-9511-0>

Gong, J., Stanton, B., Lunn, S., Deveaux, L., Li, X., Marshall, S., Brathwaite, N. V., Cottrell, L., Harris, C., & Chen, X. (2009). Effects through 24 months of an HIV/AIDS prevention intervention program based on protection motivation theory among preadolescents in The Bahamas. *Pediatrics*, *123*(5), e917-e928. <http://dx.doi.org/10.1542/peds.2008-2363>

Stanton, B., Deveaux, L., Lunn, S., Yu, S., Brathwaite, N., Li, X., Cottrell, L., Harris, C., Clemens, R., & Marshall, S. (2009). Condom-use skills checklist: A proxy for assessing condom use knowledge and skills when direct observation is not possible. *Journal of Health, Population and Nutrition*, *27*(3), 406-413. <http://www.jstor.org/stable/23499897>

## 2010

Chen, X., Lunn, S., Harris, C., Li, X., Deveaux, L., Marshall, S., Cottrell, L., & Stanton, B. (2010). Modeling early sexual initiation among young adolescents using quantum and continuous behavior change methods: Implications for HIV prevention. *Nonlinear Dynamics, Psychology, and Life Sciences*, *14*(4), 491-509. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3013356/>

Chen, X., Stanton, B., Gomez, P., Lunn, S., Deveaux, L., Brathwaite, N., Li, X., Marshall, S., Cottrell, L., & Harris, C. (2010). Effects on condom use of an HIV prevention programme 36 months postintervention: A cluster randomized controlled trial among Bahamian youth. *International Journal of STD & AIDS*, *21*(9), 622-630. <http://dx.doi.org/10.1258/ijsa.2010.010039>

## 2011

Deveaux, L., Lunn, S., Bain, R. M., Gomez, P., Kelly, T., Brathwaite, N., Russell-Rolle, G., Li, X., & Stanton, B. (2011). Focus on

youth in the Caribbean: Beyond the numbers. *Journal of the International Association of Physicians in AIDS Care*, *10*(5), 316-325. <http://dx.doi.org/10.1177/1545109710397367>

## 2012

Chen, X., Dinaj-Koci, V., Brathwaite, N., Cottrell, L., Deveaux, L., Gomez, P., Harris, C., Li, X., Lunn, S., Marshall, S., & Stanton, B. (2012). Development of condom-use self-efficacy over 36 months among early adolescents: A mediation analysis. *The Journal of Early Adolescence*, *32*(5), 711-729. <http://dx.doi.org/10.1177/0272431611419507>

Dinaj-Koci, V., Brathwaite, N., Deveaux, L., Lunn, S., Cottrell, L., Harris, C., Stanton, B., Li, X., Marshall, S., Gomez, P., & Chen, X. (2012). When things are not as they appear: assessing the adequacy of cluster randomization when outcome events are rare at baseline. *AIDS Research and Treatment*, Article ID 806384, 1-15. <http://dx.doi.org/10.1155/2012/806384>

Dinaj-Koci, V., Chen, X., Deveaux, L., Lunn, S., Li, X., Wang, B., Brathwaite, N., Marshall, S., Gomez, P., & Stanton, B. (2012). Developmental implications of HIV prevention during adolescence: Examination of the long-term impact of HIV prevention interventions delivered in randomized controlled trials in grade six and in grade 10. *Youth and Society*. <http://dx.doi.org/10.1177/0044118X12456028>.

Jones, G., Chen, X., Stanton, B., Dinaj-Koci, V., Deveaux, L., Lunn, S., Brathwaite, N., & Gomez, M. P. (2012). Parental monitoring and risky behavior in Bahamian youth. *International Journal of Child, Youth & Family Studies: IJCYFS*, *3*(4), 376-395. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4520708/>

- Knowles, V., Kaljee, L., Deveaux, L., Lunn, S., Rolle, G., & Stanton, B. (2012). National implementation of an evidence-based HIV prevention and reproductive health program for Bahamian youth. *The International Electronic Journal of Health Education, 15*(1), 173-190.  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4153366/>
- Knowles, V., Wang, B., Deveaux, L., Lunn, S., Rolle, G., Jones, G., Harris, C., Kaljee, L., Li, X., Koci, V., Chen, X., Marshall, S., & Stanton, B. (2012). Preparing for national implementation of an evidence-based, effective HIV prevention program among Bahamian sixth-grade students. *World Health & Population, 13*(4), 28-42.  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4063301/>
- Stanton, B., Chen, X., Koci, V., Deveaux, L., Lunn, S., Harris, C., Brathwaite, N., Gomez, P., Li X., & Marshall, S. (2012). Effect of a grade 6 HIV risk reduction intervention four years later among students who were and were not enrolled in the study trial. *Journal of Adolescent Health, 50*(3), 243-249.  
<http://dx.doi.org/10.1016/j.jadohealth.2011.06.012>
- Stanton, B., Jones, G., Chen, X., Dinaj-Koci, V., Deveaux, L., Lunn, S., Brathwaite, N., & Gomez, P. (2012). Parental monitoring and risky behavior in Bahamian youth. *International Journal of Child, Youth & Family Studies, 3*(4), 376-395.  
<http://dx.doi.org/10.18357/ijcyfs34201211483>
- 2013**
- Chen, X., Stanton, B., Chen, D. G., & Li, X. (2013). Intention to use condom, CUSP modeling, and evaluation of an HIV prevention intervention trial. *Nonlinear Dynamics, Psychology, and Life Sciences, 17*(3), 385-403.  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4106698/>
- Wang, B., Deveaux, L., Lunn, S., Dinaj-Koci, V., Li, X., & Stanton, B. (2013). The influence of sensation-seeking and parental and peer influences in early adolescence on risk involvement through middle adolescence: A structural equation modeling analysis. *Youth and Society*.  
<http://dx.doi.org/10.1177/0044118X134872286>
- Wang, B., Stanton, B., Chen, X., Li, X., Dinaj-Koci, V., Brathwaite, N., Deveaux, L., & Lunn, S. (2013). Predictors of responsiveness among early adolescents to a school-based risk reduction intervention over 3 years. *AIDS and Behavior, 17*(3), 1096-1104.  
<http://dx.doi.org/10.1007/s10461-012-0144-y>
- Wang, B., Stanton, B., Li, X., Cottrell, L., Deveaux, L., & Kaljee, L. (2013). The influence of parental monitoring and parent-adolescent communication on Bahamian adolescent risk involvement: A three-year longitudinal examination. *Social Science & Medicine, 97*, 161-169.  
<http://dx.doi.org/10.1016/j.socscimed.2013.08.013>

**2014**

- Dinaj-Koci, V., Lunn, S. D., Deveaux, L., Wang, B., Chen, X., Li, X., Gomez, P., Marshall, S., Braithwaite, N., & Stanton, B. (2014). Adolescent age at time of receipt of one or more sexual risk reduction interventions. *Journal of Adolescent Health, 55*(2), 228–234. <http://dx.doi.org/10.1016/j.jadohealth.2014.01.016>
- Wang, B., Deveaux, L., Li, X., Marshall, S., Chen, X., & Stanton, B. (2014). The impact of youth, family, peer and neighborhood risk factors on developmental trajectories of risk involvement from early through middle adolescence. *Social Science & Medicine, 106*, 43-52. <http://dx.doi.org/10.1016/j.socscimed.2014.01.023>
- Wang, B., Stanton, B., Deveaux, L., Li, X., Koci, V., & Lunn, S. (2014). The impact of parent involvement in an effective adolescent risk reduction intervention on sexual risk communication and adolescent outcomes. *AIDS Education and Prevention : Official Publication of the International Society for AIDS Education, 26*(6), 500–520. <http://doi.org/10.1521/aeap.2014.26.6.500>
- Wang, B., Stanton, B., Knowles, V., Russell-Rolle, G., Deveaux, L., Dinaj-Koci, V., Li, X., Brathwaite, N., & Lunn, S. (2014). Sustained institutional effects of an evidence-based HIV prevention intervention. *Prevention Science, 15*(3), 340-349. <http://dx.doi.org/10.1007/s11121-013-0397-3>

**2015**

- Dinaj-Koci, V., Chen, X., Deveaux, L., Lunn, S., Li, X., Wang, B., Barthwaite, N., Marshall, S., Gomez, P., & Stanton, B. (2015). Developmental implications of HIV prevention during adolescence examination of the long-term impact of HIV prevention interventions delivered in randomized controlled trials in grade six and in grade 10. *Youth & Society, 47*(2), 151-172. <http://dx.doi.org/10.1177/0044118X12456028>
- Dinaj-Koci, V., Deveaux, L., Wang, B., Lunn, S., Marshall, S., Li, X., & Stanton, B. (2015). Adolescent sexual health education: Parents benefit too! *Health Education & Behavior, 42*(5), 648-653. <http://dx.doi.org/10.1177/1090198114568309>
- Stanton, B., Wang, B., Deveaux, L., Lunn, S., Rolle, G., Li, X., Braithwaite, N., Dinaj-Koci, V., Marshall, S., & Gomez, P. (2015). Assessing the effects of a complementary parent intervention and prior exposure to a preadolescent program of HIV-risk reduction for mid-adolescents. *American Journal of Public Health, 105*(3), 575-583. <http://dx.doi.org/10.2105/AJPH.2014.302345>
- Wang, B., Deveaux, L., Knowles, V., Koci, V., Rolle, G., Lunn, S., Li, X., & Stanton, B. (2015). Fidelity of implementation of an evidence-based HIV prevention program among Bahamian sixth grade students. *Prevention Science, 16*(1), 110-121. <http://dx.doi.org/10.1007/s11121-014-0486-y>
- Wang, B., Stanton, B., Deveaux, L., Li, X., & Lunn, S. (2015). Dynamic relationships between parental monitoring, peer risk involvement and sexual risk behavior among Bahamian mid-adolescents.

*International Perspectives on Sexual and Reproductive Health*, 41(2), 89-98.  
<http://dx.doi.org/10.1363/4108915>

Wang, B., Stanton, B., Deveaux, L., Poitier, M., Lunn, S., Koci, V., Adderley, R., Kaljee, L., Marshall, S., Li, X., & Rolle, G. (2015). Factors influencing implementation dose and fidelity thereof and related student outcomes of an evidence-based national HIV prevention program. *Implementation Science*, 10(1), 1-13. <http://dx.doi.org/10.1186/s13012-015-0236-y>

## 2016

Kaljee, L., Wang, B., Deveaux, L., Lunn, S., Rolle, G., Villar, M. E., & Stanton, B. (2016). Cross-sectional data on alcohol and marijuana use and sexual behavior among male and female secondary school students in New Providence, The Bahamas. *International Journal of Adolescent Medicine and Health*, 28(2), 133-140.  
<http://dx.doi.org/10.1515/ijamh-2014-0079>

Stanton, B., Dinaj-Koci, V., Wang, B., Deveaux, L., Lunn, S., Li, X., Rolle, G., Brathwaite, N., Marshall, S., & Gomez, P. (2016). Adolescent HIV risk reduction in the Bahamas: Results from two randomized controlled intervention trials spanning elementary school through high school. *AIDS and Behavior*, 20(6), 1182-1196. <http://dx.doi.org/10.1007/s10461-015-1225-5>

Wang, B., Deveaux, L., Lunn, S., Dinaj-Koci, V., Li, X., & Stanton, B. (2016). The influence of sensation-seeking and parental and peer influences in early adolescence on risk involvement through middle adolescence: A structural equation modeling analysis. *Youth & Society*, 48(2), 220-241.  
<http://dx.doi.org/10.1177/0044118X13487228>

Wang, B., Stanton, B., Lunn, S., Patel, P., Koci, V., & Deveaux, L. (2016). Development of a brief pre-implementation screening tool to identify teachers who are at risk for not implementing intervention curriculum and high-implementing teachers. *Health Education & Behavior*, 10.1177/1090198116639242

Wang, B., Stanton, B., Lunn, S., Rolle, G., Poitier, M., Adderley, R., Li, X., Koci, V., & Deveaux, L. (2016). The impact of teachers' modifications of an evidenced-based HIV prevention intervention on program outcomes. *Prevention Science*, 17(1), 122-133.  
<http://dx.doi.org/10.1007/s11121-015-0592-5>