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Cost Analysis of Community-Based Violence Prevention Programs: Manhood 2.0 and Job Skills Programs

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Abstract

Purpose—Sexual violence (SV) and adolescent relationship abuse (ARA) are common in the U. S. and have strong associations with negative health and wellbeing outcomes. Manhood 2.0 is the first U.S. program designed for community settings to build bystander skills while also challenging harmful gender norms. A cluster-randomized trial comparing Manhood 2.0 to Job Skills, a job readiness training control condition, demonstrated that it is a promising strategy to prevent sexual violence and adolescent relationship abuse. Such community-based interventions may be particularly relevant in lower resource urban settings, and the costs of such prevention programs have not been considered previously.

Methods—The aim of the present study is to perform systematic and standardized cost calculations associated with implementing Manhood 2.0 among adolescent males. In addition, this

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Shichao Tang: Formal analysis.

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Elizabeth Miller: Funding acquisition.

Conflict of Interest The authors declare that they have no conflict of interest.

Disclaimer The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Ethical Approval The original Manhood 2.0 study was approved by the University of Pittsburgh IRB (Protocol 14080673; Clinical Trials [NCT02427061](https://clinicaltrials.gov/ct2/show/study/NCT02427061)).

study provides detailed cost information of the community-based intervention program, as well as costs associated with implementing the Job Skills control program. Program implementation data were recorded throughout the study period (2015–2019) by the Manhood 2.0 study team.

Results—The cost of implementing Manhood 2.0 is \$4,771 per complete round of program delivery and \$451 per participant, which is approximately the same cost as the control Job Skills program (\$4,432 and \$453 per participant). The marginal cost per additional round of Manhood 2.0 program is \$3,682.

Conclusion—Implementation of a community-based program requires substantial resources and collaborations with community partners especially in economically disadvantaged neighborhoods. This study provides a snapshot of the cost information of a community-based intervention program from the implementing agency’s perspective, which is essential in helping decision-makers understand the costs they will incur by implementing prevention programs and ensuring program feasibility and sustainability.

Keywords

Cost Analysis; Sexual Violence Prevention; Adolescent Relationship Abuse; Community-Based Program; Economic Evaluation

Mounting evidence demonstrates that sexual violence (SV) and adolescent relationship abuse (ARA) are common in the United States and have strong associations with negative health and wellbeing outcomes (Basile et al., 2020; Exner-Cortens et al., 2013; Smith, 2018; World Health Organization, 2013). As such, prevention strategies that can address both SV and ARA are a growing public health priority (Center for Disease Control and Prevention, 2016). Promising strategies for preventing sexual and partner violence perpetration include challenging harmful gender norms that condone violence against women and building bystander behaviors skills (i.e., increasing likelihood of interrupting peers’ harmful behaviors towards females) (Basile, 2016; Niolon, 2017). Effective bystander programs that build bystander skills while also challenging harmful gender norms have been effective at reducing SV/ARA, but have been primarily developed for school-based settings (Coker et al., 2017; Miller et al., 2012). To our knowledge, Manhood 2.0 is among the first gender transformative programs in the U.S. designed specifically for community-based settings, which allowed for lengthier and more in-depth conversations about sexuality and violence over the course of several weeks. Such practices are known to increase interactions, questions, and personal reflections among youth (Nation et al., 2003). In addition, youth who are at risk of perpetrating SV/ARA may be at risk of being suspended or expelled from educational settings (Hemphill et al., 2006) and may be more likely to be reached through community-based programs (Center for the Study and Prevention of Violence, 2011).

Manhood 2.0 was adapted from a promising program (Program H) to prevent SV/ARA among adolescent males living in under-resourced neighborhoods in the U.S. Program H is a gender-transformative curriculum developed for Brazilian young men that has been adapted in global settings (<https://promundoglobal.org/programs/program-h/>) (Abebe et al., 2018). Evaluation studies have found promising reductions in attitudes that support gender-based violence, and in some settings, have led to reductions in young and adult

men's reported use of violence (Kato-Wallace et al., 2019; Miller et al., 2020; Pulerwitz & Barker, 2008). Key adaptations were undertaken to ensure that Manhood 2.0 would be successful at building bystander skills and disrupting harmful norms and behaviors to prevent SV/ARA perpetration among adolescent males in U.S., community-based settings. These adaptations have been described in detail elsewhere (Kato-Wallace et al., 2019). Key adaptations included additional discussions of social media use, internet pornography, deeper explorations of intersectionality (how racism and sexism identities interact) using visual art, comprehensive sexual health education including female-controlled contraception, and practicing bystander intervention skills (Abebe et al., 2018; Miller et al., 2020; Ricardo, 2010). In a cluster-randomized controlled trial, the effectiveness of Manhood 2.0 to reduce SV/ARA and related behaviors was compared to a control group who received Job Skills, a job skills readiness training program (<https://www.youthworksinc.org/>) (Abebe et al., 2018; Miller et al., 2020). The Job Skills sessions mimicked the structure of Manhood 2.0 and covered topics from career options and goal setting to interviewing skills and workplace expectations. This program was selected to encourage comparable recruitment and retention across study arms.

The study population was male youth aged 13–19 living in socially disadvantaged, racially segregated neighborhoods of Pittsburgh, Pennsylvania. Program implementation relied on existing infrastructure in neighborhoods, including community-based networks and youth serving organizations that could connect with harder-to-reach adolescent males. Findings from the cluster-randomized controlled trial revealed that both Manhood 2.0 and the Job Skills training participants reported less SV/ARA at 9-month follow-up compared to baseline, but were not significantly different from each other (AOR 1.32 [95% CI: 0.86–2.01] (Miller et al., 2020)). At baseline, 64% of intervention participants reported perpetrating SV/ARA, compared to 52% 9 months after the program ($p = 0.022$). Additionally, 53% of control participants reported perpetrating SV/ARA at baseline, while 41% reported at 9 months follow-up ($p = 0.0002$) (Miller et al., 2020). Manhood 2.0 participants reported greater intentions to intervene when witnessing harmful behaviors compared to controls, and post-hoc analyses adjusting for the amount of intervention programming delivered found significantly greater increases in recognition of abusive behaviors among Manhood 2.0 participants compared to controls (Miller et al., 2020).

The demonstrated impacts of Manhood 2.0 and the Job Skills training on violence and other health outcomes are promising; however, less is known about the cost to implement these programs in community settings. The aim of the present study is to perform systematic and standardized cost calculations and provide detailed cost information associated with implementing a community-based, gender-specific violence prevention program among adolescent males. Manhood 2.0, as well as costs associated with implementing the Job Skills control program. These estimates are essential in helping decision-makers understand costs they may incur by implementing prevention programs (especially those situated in community settings) and ensuring program feasibility and sustainability. Therefore, the cost analysis was conducted from the implementing agency's perspective.

Program Design

Costs were documented during a two-arm cluster randomized controlled trial to determine the effectiveness of Manhood 2.0 on reductions in SV/ARA perpetration compared to a Job Skills control program. Both programs (18 h each) were typically delivered over 3 to 6 weeks. Two community facilitators (CF) delivered the Manhood 2.0 program with assistance from an implementer and a medical expert. Similarly, two CFs delivered the Job Skills program with an implementer but without a medical expert. Twenty neighborhoods represented by 21 clusters were randomly allocated to the experimental arm (11 clusters) and the control arm (10 clusters) from 2015 to 2017.

Methods

Data Collections

Cost data included start-up, program delivery, and administration costs recorded throughout the study period by the study team and compiled after the completion of the study.

Study Population

The study population comprised adolescent males aged 13 to 19, who were recruited from economically-disadvantaged neighborhoods. Enrolled neighborhoods struggled with poverty and high rates of violence (Abebe et al., 2018). Detailed characteristics of neighborhoods are reported elsewhere (Abebe et al., 2018). Most participants (70%) identified as Black or African American; 88% were US-born. At baseline, 19% were in middle school, 62% were in high school, 5% graduated high school or earned a GED, and 5% did not complete high school (with 10% missing information on education). To enroll in the study, participants had to be within the age range, self-identify as male, and be willing to participate in the programming offered in their neighborhood (intervention or control). Youth were recruited through connections with youth-serving agencies, school-based prevention specialists, school districts offering alternatives to suspension, and a Community Intensive Supervision Program for youth involved in the juvenile justice system. Participants could also provide referrals to peers using a respondent driven sampling approach.

Cost Activities

The costs are presented for Manhood 2.0 and the Job Skills program across the following categories of activities: start-up, program delivery, and administration. The cost activities documented in this study only include the interventions cost and cost of activities to implement the interventions. Research cost was excluded. Unless otherwise noted, cost activities were the same for Manhood 2.0 and the Job Skills program.

Start-Up Activities

Before Manhood 2.0 and the Job Skills program were implemented, asset mapping (Abebe et al., 2018) was conducted to identify resources within the neighborhoods, including identifying community partners that could help secure appropriate locations to hold the program and identify CF.

Asset mapping/recruiting neighborhood and CF.—To identify neighborhoods with community partners such as the YMCA, Urban League and other youth-serving partners that could host the programs, asset mapping was conducted. A web-search of potential community resources in the area was conducted first. Potential community partners were contacted through email, phone and in person to determine if they were interested in hosting the programs or to identify other possible community partners to assist with hosting or facilitating the programs. Contracts were completed with community partners before the programs were implemented. The cost for asset mapping includes staff salary and travel expenses.

Initial training of CFs.—The CFs of Manhood 2.0 received a 3-day initial training to understand the program's methodology and activities (this was noted elsewhere (Abebe et al., 2018)). The cost includes salary and fringe benefits paid to trainers, their travel expenses, salary and fringe benefits paid to CFs, and food and drink expenses during the 3-day training. There is no initial training for the facilitator of the control group as the Job Skills program is an established program (i.e., not a new program though it has not been delivered to the community yet; see: <https://www.youthworksinc.org/>).

Program Delivery Activities

Before implementing each round of both programs, the program participants were recruited through the network of community partners identified in the asset mapping. In addition, respondent driven sampling (RDS) was used to recruit participants. Participants who successfully recruited a friend or neighbor received a referral coupon.

In each round of both programs, two CFs and one implementer lead the sessions. Implementers observed every session to ensure fidelity to the program (this was noted elsewhere (Abebe et al., 2018)) and the implementers were responsible for preparing for the class, contacting youth, and collecting feedback for facilitators. In Manhood 2.0, one medical expert (consisting primarily of a medical resident or fellow training in pediatrics who volunteered their time) also facilitated 3 h of programmatic content regarding sexual health, contraception, and sexually transmitted infection (STI) prevention. The minimum number of participants set for a round not moving forward was less than 3 participants. The maximum was 20 participants. The cost includes four parts: personnel, rent, supplies and travel.

Personnel.—Staff was paid salary for recruiting participants during each round. Stipend paid to CFs and salary of implementers were based on how many hours they worked. The CFs also received on-the-job training while an experienced facilitator led the program and the facilitators shadowed. The cost is a portion of the salary paid to CFs. For Manhood 2.0, though medical experts volunteered their time, we still considered their time as a part of personnel cost based on the hourly wage rate (\$52) of a Pittsburgh-based medical expert. There is no medical expert in the Job Skills program.

Rent.—A fixed use of facilities fee was paid to each hosting community partner which covered utilities, staff time to open the door, clean up, and other costs related to using the space.

Supplies.—Supplies were purchased to help deliver the program including teaching and learning equipment such as props, models, laptops, and projectors, office supplies, food and drinks, and computers. Since the Manhood 2.0 program is available online, the cost for the curriculum is free of charge. For the Job Skills program, the cost of the curriculum is the printing cost of the booklet. Participants who successfully recruited a friend or neighbor received a \$5 referral coupon, up to \$25 (5 friends) overall in both programs. Participants in both programs were paid \$ 10/session for sessions 1 through 4 and session 6 to encourage attendance (\$50 per participant per round). At each session, youth submitted their name on a ticket; at the 5th session, one ticket was drawn randomly from all the submitted tickets for a \$25 gift card (i.e., youth who attended more frequently had greater odds of their name being selected).

Travel.—As implementers in both programs needed to travel to the site to deliver the program, they were reimbursed for their travel expenses based on mileage from the implementation office.

Administration Activities

One coordinator was responsible for hiring and onboarding CF and implementer for both programs. The cost is a portion of the salary paid to the coordinator and was shared by both programs.

Data Analysis

The cost estimate is based on rounds implemented during a one-year period. Since different rounds of the programs were implemented in different years, the costs were adjusted for inflation and presented as 2018 dollars (U.S. Bureau of Labor Statistics, 2020) and were discounted at a rate of 3% (Haddix et al., 2002). The start-up cost was treated as an investment and was annualized over 3 years using a 3% discount rate (Ferrari et al., 2022; Leight et al., 2021). Total costs for both Manhood 2.0 and the Job Skills program were calculated to reflect the total implementation cost. Cost per unit was calculated by dividing the total costs by rounds and participants to determine cost per round, participant. Marginal cost of the Manhood 2.0 program or the Job Skills program was defined as the cost associated with adding one additional round to the program at a given community site assuming the neighborhood had already been recruited and asset mapped.

Results

Sample Description

There were 866 participants in total with 465 participants in the experimental arm (Manhood 2.0) and 401 participants in the control arm (Job Skills). Each full 18-hour program implemented was counted as a “round”; 44 rounds of Manhood 2.0 and 41 rounds of the Job Skills program were implemented in three years (see Table 1) across 21 clusters. The

number of participants varies by round with 10 participants per round on average for both programs (see Table 2).

Total Costs

Table 3 presents the total cost of the Manhood 2.0 (\$209,904) program and the Job Skills (\$181,728) program. The total cost consists of three major parts: start-up cost (\$19,929 Manhood 2.0 vs. \$10,144 Job Skills), program delivery cost (\$161,999 vs. \$143,607), and administration cost (\$27,977 vs. \$27,977).

For Manhood 2.0 program, the asset mapping/recruiting neighborhoods and CFs accounts for most of the start-up costs (\$11,153), followed by initial CF training (\$8,776). The primary cost of the program delivery is the personnel cost: the salary paid to staff (recruiting participants), CFs, medical expert, and implementer is \$86,353. For the Job Skills program, the asset mapping/recruiting neighborhoods and CFs accounts for most of the start-up costs (\$10,144). There is no initial CF training cost incurred for the Job Skills program (Abebe et al., 2018). Personnel cost (\$74,306) is also the primary cost of the program delivery for the Job Skills program. The administration cost was evenly split into two because the two programs had similar structure.

Costs per Unit

A standard round of Manhood 2.0 program and the Job Skills program was delivered by two CFs and one implementer for 6 educational sessions, and with a medical expert (only for Manhood 2.0) in one of the sessions. The average cost per round can inform other communities of needed resources prior to implementation. A round of Manhood 2.0 program and the Job Skills program costs on average \$4,771 and \$4,432, respectively. We also calculated the cost per participant to consider the difference of number of participants in different rounds. We found that the Manhood 2.0 program costs \$451 per participant, which is approximately the same as the Job Skills program which costs \$453 per participant.

Marginal Costs

Both Manhood 2.0 and Job Skills are community-based prevention programs and successful implementation of these programs rely on asset mapping to identify potential community partners to host the programs. Once community partners are identified after the asset mapping, adding additional rounds of intervention programs within that community is limited to the variable cost. The start-up cost is fixed and would not vary as additional rounds are added; therefore, the cost of adding an additional round (full course) to an established site is equal to the cost of program delivery per round including the cost of personnel, rent, supplies, and travel. This marginal cost is \$3,682 for the Manhood 2.0 program and \$3,503 for the Job Skills program.

Sensitivity Analysis

As cost varies by the size of each round, a sensitivity analysis was conducted by including low and high estimates of the program costs to ensure accuracy (see Table 4). These estimates were calculated based on the lower bound and upper bound of the amount of the cost. The high estimate for the total cost and cost per round is based on the cost estimate for

a round with maximum number of participants (18 for Manhood 2.0 and 19 for Job Skills program), while the high estimate for the cost per participant is based on the cost estimate for a round with minimum number of participants (3 for both Manhood 2.0 and Job Skills program). The low estimate for the total cost and cost per round is based on the cost estimate for a round with minimum number of participants (3 for both Manhood 2.0 and Job Skills program), while the low estimate for the cost per participant is based on the cost estimate for a round with maximum number of participants (18 for Manhood 2.0 and 19 for Job Skills program). The cost per participant of Manhood 2.0 ranges from \$283 to \$1,508; the cost per participant of the Job Skills program ranges from \$250 to \$1,395. The cost per round of Manhood 2.0 ranges from \$4,525 to \$5,094; the cost per round of the Job Skills program ranges from \$4,184 to \$4,759. The range of the cost per participant estimate is wider than those of total cost and cost per round because the size of each round has a significant impact on the cost per participant. The cohort size may need to be taken into account when a similar program is implemented in the future. Estimates of the cost data vary in personnel time used, pay rate, and cost of supplies.

Discussion

The total cost of implementing Manhood 2.0 and the Job Skills programs from 2015 to 2017 is \$209,904 across 465 participants and \$181,728 across 401 participants, respectively. The cost of implementing Manhood 2.0 and Job Skills per round is \$4,771 across 44 rounds and \$4,432 across 41 rounds, respectively (with each round averaging about 10 participants). Manhood 2.0 incurred approximately the same cost per participant as the Job Skills program (\$451 vs. \$453). Major contributors to the cost of Manhood 2.0 program and the Job Skills program are personnel costs (\$ 186/participant vs. \$ 185/participant) and supplies (\$142/ participant vs. \$151/participant) for training participants. To a location already delivering Manhood 2.0 or the Job Skills program, adding one additional round costs \$3,682 vs. \$3,503, respectively. There are not many community-based sexual violence prevention programs targeting adolescents and the cost data for those programs are not well documented. Dating Matters, a teen dating violence prevention program, cost \$145 per student on average (Luo et al., 2022). Although it is less expensive than Manhood 2.0 and Job Skills programs to implement, it is school-based and requires different resources and is, therefore, not directly comparable.

Implementation of a community-based program requires substantial resources and collaborations with community partners especially in neighborhoods where residents may be less willing to engage in sponsored programming from outside, majority white organizations due to lack of trust stemming from experiences of systemic racism (Alang et al., 2020; Boynton-Jarrett et al., 2021). While activities such as asset mapping contributed to high start-up costs, these activities built relationships between the implementation team and community members and were integral to successful program participation, retention, and community buy-in (Eugene et al., 2017). In any one-year period, in smaller neighborhoods, there may be a smaller pool of youth from which to draw participants. Support from local magisterial judges and school administrators can increase participation in this prevention programming as an alternative to suspension or as community service hours for youth

who are on probation. Additionally, creating excitement for participation among younger adolescents creates a pipeline into the programs as they become age eligible.

In several of the neighborhoods, these programs were treated as alternatives to suspension. Further research is needed to estimate and compare the costs of suspensions due to violent behavior and the potential cost-savings with community-based prevention programming that may prevent future perpetration. Notably, the Manhood 2.0 and the Job Skills readiness training programs have been adopted by the county's Department of Human Services and continue to be implemented by CFs and implementers in many of these neighborhoods with continued support. The cost data collected from this study helped inform the Department of Human Services' decision to continue to support these prevention programs.

This study is subject to several limitations. First, while the activities were tracked during data collection, the actual cost data were collected retrospectively. Recall bias may lead to inaccuracies in cost estimates. To reduce recall bias, a sensitivity analysis was conducted and cost estimates with different ranges were provided. Also, the overall cost of living in Pittsburgh is significantly lower than many urban settings in the U.S., thus these cost estimates may underestimate the actual costs in more expensive cities. Nevertheless, the present cost analysis provided detailed cost information about two community-based intervention programs, which is important in helping decision-makers understand the costs associated with implementing prevention programs and ensuring program feasibility and sustainability. Second, as Job Skills is an established program in the communities where the trials were conducted, initial training of the facilitator was not needed and these associated costs were not accounted for in these estimates. Therefore, the cost of the Job Skills program in communities where the program is not already in place may incur greater costs than reported.

Conclusion

Implementation of a community-based program in economically-disadvantaged neighborhoods requires substantial resources and collaborations with community partners. This study provides a snapshot of the cost information of two community-based programs from the implementing agency's perspective. The costs reported in this paper can help decision-makers understand the costs they will incur when implementing prevention programs and ensuring program feasibility and sustainability. Both Manhood 2.0 and job skills training appear to be effective in violence reduction and address salient risk and protective factors associated with sexual violence and adolescent relationship abuse. Therefore, these cost data can also inform future cost-effectiveness analyses of behavioral, group-based interventions (i.e., potential cost savings with reducing violence perpetration). Future research on the cost-effectiveness of these two community-based programs is warranted. Greater attention to reporting costs of programming in the violence prevention field will allow for more robust comparisons across programs as well as guide advocacy and policy making regarding return on investments associated with implementing such prevention programs.

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References

- Abebe KZ, Jones KA, Culyba AJ, Feliz NB, Anderson H, Torres I, Zelazny S, Bamwine P, Boateng A, Cirba B, Detchon A, Devine D, Feinstein Z, Macak J, Massof M, Miller-Walfish S, Morrow SE, Mulbah P, Mulwa Z, & Miller E (2018). Engendering healthy masculinities to prevent sexual violence: Rationale for and design of the Manhood 2.0 trial. *Contemporary Clinical Trials*, 71, 18–32. 10.1016/j.cct.2018.05.017. [PubMed: 29802967]
- Alang S, McAlpine DD, & Hardeman R (2020). Police brutality and mistrust in Medical Institutions. *Journal of Racial and Ethnic Health Disparities*, 7(4), 760–768. 10.1007/s40615-020-00706-w. [PubMed: 31989532]
- Basile KC, Clayton HB, DeGue S, Gilford JW, Vagi KJ, Suarez NA, Zwald ML, & Lowry R (2020). Interpersonal Violence Victimization Among High School Students - Youth Risk Behavior Survey, United States, 2019. *MMWR Suppl*, 69(1), 28–37. 10.15585/mmwr.su6901a4 [PubMed: 32817605]
- Basile KC, DeGue S, Jones K, Freire K, Dills J, Smith SG, & Raiford JL (2016). A technical package to prevent sexual violence. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, <https://www.cdc.gov/violenceprevention/pdf/sv-prevention-technical-package.pdf>.
- Boynton-Jarrett R, Raj A, & Inwards-Breland DJ (2021). Structural integrity: Recognizing, measuring, and addressing systemic racism and its health impacts. *EClinicalMedicine*, 36, 100921. 10.1016/j.eclinm.2021.100921 [PubMed: 34142070]
- Center for Disease Control and Prevention (2016). Preventing multiple forms of violence: a strategic vision for connecting the dots. Division of Violence Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. https://www.cdc.gov/violenceprevention/pdf/strategic_vision.pdf
- Center for the Study and Prevention of Violence (2011). Blueprints for Violence Prevention. www.colorado.edu/cspv/blueprints.
- Coker AL, Bush HM, Cook-Craig PG, DeGue SA, Clear ER, Brancato CJ, Fisher BS, & Recktenwald EA (2017). RCT Testing Bystander Effectiveness to reduce violence. *American Journal Of Preventive Medicine*, 52(5), 566–578. 10.1016/j.amepre.2017.01.020. [PubMed: 28279546]
- Eugene JM, Zelazny S, Torres I, Feliz N, Bamwine P, Jones K, & Miller E (2017). Using Community Asset Mapping and Respondent-Driven Sampling to Support Recruitment and Retention for a community-based sexual violence Prevention Program. *Journal Of Adolescent Health*, 60(2), S79. 10.1016/j.jadohealth.2016.10.338.
- Exner-Cortens D, Eckenrode J, & Rothman E (2013). Longitudinal associations between teen dating violence victimization and adverse health outcomes. *Pediatrics*, 131(1), 71–78. 10.1542/peds.2012-1029. [PubMed: 23230075]
- Ferrari G, Torres-Rueda S, Chirwa E, Gibbs A, Orangi S, Barasa E, Tawiah T, Dwommoh Prah RK, Hitimana R, Daviaud E, Kapapa E, Dunkle K, Heise L, Stern E, Chatterji S, Omondi B, Ogum Alangea D, Karmaliani R, Khuwaja MA, & Vassall H,A (2022). Prevention of violence against women and girls: a cost-effectiveness study across 6 low- and middle-income countries. *PLOS Medicine*, 19(3), e1003827. 10.1371/journal.pmed.1003827. [PubMed: 35324910]
- Haddix AC, Teutsch SM, & Corso PS (2002). Prevention effectiveness: a guide to decision analysis and economic evaluation. Oxford University Press.
- Hemphill SA, Toumbourou JW, Herrenkohl TI, McMorris BJ, & Catalano RF (2006). The effect of school suspensions and arrests on subsequent adolescent antisocial behavior in Australia and the United States. *Journal Of Adolescent Health*, 39(5), 736–744. 10.1016/j.jadohealth.2006.05.010.
- Kato-Wallace J, Barker G, Garg A, Feliz N, Levack A, Ports K, & Miller E (2019). Adapting a global gender-transformative violence Prevention Program for the U.S. community-based setting for work with Young Men. *Glob Soc Welf* 6(2), 121–130. 10.1007/s40609-018-00135-y. [PubMed: 30956935]

- Leight J, Deyessa N, & Sharma V (2021). Cost-effectiveness analysis of an intimate partner violence prevention intervention targeting men, women and couples in rural Ethiopia: evidence from the Unite for a Better Life randomised controlled trial. *British Medical Journal Open*, 11(3), e042365. 10.1136/bmjopen-2020-042365.
- Luo F, DeGue S, & Le VD (2022). Estimating from the Payer Perspective the implementation cost of dating Matters[®]: a Comprehensive Teen dating violence Prevention Model. *J Interpers Violence*, 37(11–12), 10.1177/0886260520980389. Np9144–np9167. [PubMed: 33323008]
- Miller E, Jones KA, Culyba AJ, Paglisotti T, Dwarakanath N, Massof M, Feinstein Z, Ports KA, Espelage D, Pulerwitz J, Garg A, Kato-Wallace J, & Abebe KZ (2020). Effect of a community-based gender norms program on sexual violence perpetration by adolescent Boys and Young Men: a Cluster Randomized Clinical Trial. *JAMA Netw Open*, 3(12), e2028499–e2028499. 10.1001/jamanetworkopen.2020.28499. [PubMed: 33351083]
- Miller E, Tancredi DJ, McCauley HL, Decker MR, Virata MC, Anderson HA, Stetkevich N, Brown EW, Moideen F, & Silverman JG (2012). “Coaching boys into men”: a cluster-randomized controlled trial of a dating violence prevention program. *Journal Of Adolescent Health*, 51(5), 431–438. 10.1016/j.jadohealth.2012.01.018.
- Nation M, Crusto C, Wandersman A, Kumpfer KL, Seybolt D, Morrissey-Kane E, & Davino K (2003). What works in prevention. Principles of effective prevention programs. *American Psychologist*, 58(6–7), 449–456. 10.1037/0003-066x.58.6-7.449. [PubMed: 12971191]
- Niolon PH, Kearns M, Dills J, Rambo K, Irving S, Armstead T, & Gilbert L (2017). Preventing intimate partner violence across the lifespan: a technical package of programs, policies, and practices. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, <https://www.cdc.gov/violenceprevention/pdf/ipv-technicalpackages.pdf>.
- Pulerwitz J, & Barker G (2008). Measuring attitudes toward gender norms among young men in Brazil: development and psychometric evaluation of the GEM scale. *Men Masculinities*, 10(3), 322–338.
- Ricardo C, Nascimento M, Fonseca V, & Segundo M (2010). Program H and Program M: Engaging young men and empowering young women to promote gender equality and health.
- Smith SG, Zhang X, Basile KC, Merrick MT, Wang J, Kresnow M, & Chen J (2018). The national intimate Partner and sexual violence survey (NISVS): 2015 data brief – updated release. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, <https://www.cdc.gov/violenceprevention/pdf/2015data-brief508.pdf>.
- U.S. Bureau of Labor Statistics (2020). Archived Consumer Price Index Supplemental Files, <https://www.bls.gov/cpi/tables/supplemental-files/historical-cpi-u-201907.pdf>
- World Health Organization (2013). Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence.

Table 1

Program implementation characteristics

	Manhood 2.0			Job Skills			Total	
	2015	2016	2017	Total	2015	2016	2017	Total
Number of clusters ^a	4	6	9	11 ^c	4	10	6	10 ^c
Number of rounds ^b	7	22	15	44	4	26	11	41
Number of participants	80	245	140	465	47	252	102	401

^aThere are twenty neighborhoods, plus an additional centrally-located site, that were defined as clusters(Miller et al., 2020).

^bA standard round of Manhood 2.0 or Job Skills program is an 18-hour curriculum that is divided into six educational sessions.

^cThe total number is the summation of the unique cluster. Certain clusters hosted programs multiple times

Table 2

The distribution of participants in each round

	Manhood 2.0			Job Skills				
	Mean	SD	Min	Max	Mean	SD	Min	Max
Number of participants per round	10.33	3.75	3	18	9.78	3.54	3	19

Table 3

Total cost and cost per unit of Manhood 2.0 and the Job Skills programs

	Total Cost		Cost per round		Cost per participant	
	Manhood 2.0	Job Skills	Manhood 2.0	Job Skills	Manhood 2.0	Job Skills
Start-up						
Asset mapping [¶]	\$11,153	\$10,144				
Initial CF training	\$8,776	\$0				
Sub-total	\$19,929	\$10,144				
Program delivery						
Travel	\$723	\$675	\$16	\$16	\$2	\$2
Personnel	\$86,353	\$74,306	\$1,963	\$1,812	\$186	\$185
Rent	\$8,849	\$8,254	\$201	\$201	\$19	\$21
Supplies	\$66,073	\$60,372	\$1,502	\$1,472	\$142	\$151
Sub-total	\$161,999	\$143,607	\$3,682	\$3,503	\$348	\$358
Administration	\$27,977	\$27,977	\$636	\$682	\$60	\$70
Total	\$209,904	\$181,728	\$4,771	\$4,432	\$451	\$453

Note: The estimates in this table were based on mid-estimate cost data.

[¶]Those two programs conducted asset mapping for different number of neighborhoods (Manhood 2.0: 11 vs., Job skills: 10) which contributes to the cost difference on asset mapping.

Sensitivity analysis of total cost and cost per unit of Manhood 2.0 and the Job Skills programs

Table 4

	Manhood 2.0			Job Skills		
	Mid estimate	Low estimate	High estimate	Mid estimate	Low estimate	High estimate
Total cost	\$209,904	\$199,099	\$224,121	\$181,728	\$171,532	\$195,100
Cost per round	\$4,771	\$4,525	\$5,094	\$4,432	\$4,184	\$4,759
Cost per participant	\$451	\$283	\$1,508	\$453	\$250	\$1,395

Note: The estimates in this table were based on low-estimate, mid-estimate, and high-estimate cost data.