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Recommendations for Comprehensive Sex Education Curriculum Development in Arkansas
Using the International Technical Guidance on Sexuality Education

by
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A thesis
submitted in partial fulfillment
of the requirements for the degree of
Master of Arts in the Department of Sociology, Social Work, and Criminology
Idaho State University
Spring 2022

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Recommendations for Comprehensive Sex Education Curriculum Development in Arkansas Using the International Technical Guidance on Sexuality Education

Thesis Abstract -- Idaho State University (2022)

Arkansas has the highest teen birth rate in the U.S. This paper develops evidence informed recommendations for how Arkansas could implement UNESCO's *International Technical Guidance on Sexuality Education* guidelines into their existing sex education curriculum. To accomplish this, I first created a demographic profile of Arkansas and identified possible barriers to implementation that are specific to Arkansas. Next, I compared and contrasted Arkansas curriculum and the *International Technical Guidance on Sexuality Education* guidelines and identified which topics need to be covered in Arkansas' sex education. Lastly, I created recommendations on how to implement the topics from key concept 8.1 from the *International Technical Guidance on Sexuality Education* into Arkansas's existing sex education curriculum to effectively address possible barriers for implementation and use existing structures to aid in the implementation process. I discovered four key findings. Arkansas's curriculum standards are vague and leave too much room for interpretation, many schools do not teach the existing standards because it is not required, barriers that exist are deeply seeded in social norms, and there are immense racial disparities when it comes to the ability to obtain resources to prevent teen pregnancy.

Keywords: teen pregnancy, teen birth rate, sex education

EXECUTIVE SUMMARY

Scholars have conducted decades of research trying to understand why teen birth rates in America are so much higher than other developed nations. The same conclusions continue to be reached which is why I decided to focus on understanding why America has not implemented comprehensive sex education (CSE) into public schools. Arkansas has the highest rates of teen births in the U.S. My thesis aims to provide schools in Arkansas with the next step to take to get CSE implemented using the *International Technical Guidance on Sexuality Education*.

Key Findings

- Arkansas's curriculum standards are very vague compared to those in UNESCO's Guidance. This leaves much to be open to interpretation and likely leads to students getting different sex educations.
- Since teaching sex education in public schools is not federally mandated, many schools in Arkansas do not teach the subject regardless of the existence of curriculum standards.
- Many of the barriers identified are deeply seeded in social norms and will require time and work to overcome. Unfortunately, legislators will not push for CSE if they are not convinced about the long-term effectiveness of these programs. Thus, schools must make the first move and make small changes that they can slowly build upon as support grows.
- There are immense racial disparities when it comes to the ability to obtain resources to prevent teen pregnancy. White teenage girls are more likely to obtain an abortion than their peers of racial minorities and are more likely to have access to healthcare and forms of birth control.

Recommendations

- The modified curriculum should be implemented into middle schools and added into existing health classes.
- Schools should send home information packets so that parents receive detailed information on the curriculum.
- Given that most of Arkansas's population is considered highly religious, support from church leaders would be an effective tool to make parents feel more comfortable with the sex education curriculum.
- More school-based health clinics (SBHC) need to be opened, especially in middle schools. Since funding is always a complication, I recommend that school districts start by relocating the SBHC in elementary schools to middle schools.
- Arkansas schools should look into adapting Ananda Martin's program Choosing the Best. The program would need to be added to so that it teaches the recommendations in this paper.

INTRODUCTION AND BACKGROUND

Sexuality education is a vital aspect of middle and high school curriculum because it addresses a number of important health and social issues. According to a study by Kantor and Lindberg its primary purpose is to “provide adolescents with the information and skills they need to navigate relationships, understand sex and sexuality, and find the resources they need for obtaining additional information and relevant health services” (2020). Without proper understanding of sex, bodies, and the health impacts of sexual activity, the decisions that adolescents make can have long term consequences on themselves, their families and on their community. For example, births to mothers before the age of 17 are more commonly associated with low birth weight of the child, higher rates of neonatal death, higher mother mortality rates, premature birth, anemia, poor maternal weight gain, pregnancy induced hypertension, and STD’s (Klein 2005). Teenage pregnancy and childbirth are also associated with inadequate prenatal care, single parenthood, poverty, welfare receipt, and child maltreatment (Hall, et. al. 2019).

Teen Birth Rates in the U.S.

Out of all other developed nations, the U.S. currently ranks at number one for highest birth rate among 15-19-year-old girls (Guttmacher Institute 2015). As of 2018, the U.S. has an average of 17.25 births per 1,000 females aged 15-19 (The World Bank 2019). This is compared to Switzerland and Hong Kong SAR, China which have averages of 2.25 and 2.23 births per 1,000 females making them the nations with the lowest teen birth rate among developed nations (The World Bank 2019).

A reasonable conclusion might be that teens in the U.S. have more sex. However, in 2014, the Guttmacher Institute found that teens in the U.S. and Europe have similar levels of

sexual activity (Guttmacher Institute 2014). The Alan Guttmacher Institute (AGI) conducted research with teams in Canada, France, Great Britain, and Sweden to compile data to understand why the U.S. has higher than average rates of teenage pregnancy compared to other nations (Boonstra 2020). Compared to teens in these other countries, teens in the U.S. were found to have similar rates of sexual activity (Boonstra 2020). The 2015 Youth Risk Behavior Survey (YRBS) found that 41.2 percent of teens in the U.S. have had sexual intercourse and 30.1 percent of teens report being sexually active within three months of the survey (Rabbitte & Enriquez 2019 pg. 1). However, teens in the U.S. have a lower use of contraceptives, especially of highly effective hormonal contraceptives, and among those, significantly lower use of birth control pills (Boonstra 2020). In addition, teens in the U.S. are less likely to obtain an abortion than their peers in other countries (Boonstra 2020). All these factors contribute to the difference in teen birth rates between the U.S. and other nations. Teen birth rates are also higher in some areas in the U.S. and among some subpopulations. The Centers for Disease Control and Prevention argue that “social and economic barriers, as well as lack of access to quality health education and medical care, likely contribute to the high teen birth rates in the rural South of the U.S”, which is where most of the states with the highest rates of teen birth are located (2019).

The highest teen birth rates in the U.S. are among racial and ethnic minority populations. Recent CDC data show that the highest teen birth rates were among American Indian or Alaska Native teen females with 32.9 births per 1,000 females (2021). Hispanic teen females had the second highest teen birth rate with 28.9 births per 1,000 females (CDC 2021). Black females are the third highest ranking group for teen births with 27.5 births per 1,000 females (CDC 2021). There are many reasons for the significant differences in teen birth rates between ethnic and racial groups. These reasons include, but are not limited to, accessibility of contraception and

medical care, quality and type of sex education, higher rates of rape among racial minorities, and cultural expectations for women. Manlove, et. al. found that differences in sexual relationships and behavior may contribute to the racial and ethnic disparities in teen birth rates (2013).

According to their research, Black teens become sexually active before Hispanic or white teens, Hispanic teens have lower rates of contraceptive use and Black individuals are more likely than other racial groups to engage in casual sexual relationships (Manlove, et. al., 2013). Table 1 depicts the risk factors associated with high teen birth rates.

Table 1 Risk Factors Associated with High Teen Birth Rates

Risk Factors
Status as a racial/ethnic minority
Living in a rural area
Lack of contraceptive use
Engaging in casual sexual behaviors
Limited access to contraception or health care
Lower likelihood to obtain an abortion or inability to afford an abortion
Poverty
High level of religiosity

Trends in Teen Birth Rates

Nationally, teen birth rates are down from approximately 96 births per 1,000 females in the late 1950's to around 17 births per 1,000 females in 2018 (Livingston & Thomas 2020). It took almost 70 years to reduce teen birth rates by 82 percent. This is a slow rate of decrease. In the 1950's, as marriage among teens became less common, teenage motherhood also decreased

(Boonstra 2020). This trend has continued throughout the decades as the age of marriage has increased. Decreasing rates of teen birth can also be credited to the improved effectiveness and availability of contraception (Beltz, et. al. 2015). In the 90's, President Clinton began federally funding programs that aimed at lowering the rates of teen pregnancy and STD's. As a result of these programs, proper use of contraceptives increased and resulted in lower rates of teen pregnancy (Guttmacher Institute 2010). In 1999, the Alan Guttmacher Institute (AGI) conducted research to identify the factors that led to decreased rates of teenage pregnancy. AGI researchers found that a fourth of the decline in teenage pregnancy was due to increased abstinence (Boonstra 2020). The remainder of the decline in teenage pregnancy rates were linked to a change in behavior of sexually active teens specifically an increase in use of contraception (Boonstra 2020).

Sex education has also contributed to lower teen birth rates since the 1950's. However, the kind of sex education taught in the U.S. does not address issues facing teens today, such as diverse sexuality, large variety of contraceptive choices, increased rates of intimate partner violence and sexual assault, increased concentration of poverty, increased health care costs and lack of access to quality healthcare.

Sex Education in the U.S.

The U.S. does not federally mandate sex education in public schools. Instead, the U.S. government leaves the decision to teach sex education up to the individual states and many states leave the decision up to individual school districts. As a result, sex education is only state mandated in twenty-nine states and the District of Columbia (Johnson & Bradford 2020). Of those twenty-nine states, twenty-seven mandate that the education cover sex and HIV (Johnson

& Bradford 2020). Twenty-two of the twenty-nine states require that sex and/or HIV education be medically accurate (Johnson & Bradford 2020). However, the definition of “medically accurate” is not the same in all twenty-two states; it varies in each one regarding where the information must come from to be classified as medically accurate (Johnson & Bradford 2020).

Due to a variety of reasons- but especially because of strict federal government funding requirements- America continues to use an abstinence-only or abstinence-plus approach to sex education despite the countless studies, teachers, parents, health organizations and doctors that argue that comprehensive sex education (CSE) is a better approach for adolescents (Stanger-Hall & Hall 2011; Maziarz, et al. 2020; Kaiser Family Foundation 2018; Schwarz 2007; CDC 2021; Carter 2012; Blanton 2019). Abstinence approaches focus on teaching adolescents simply to not have sex. They rarely mention contraception, safety, emotional aspects of sex, human development, or reproduction. If contraception is covered, abstinence-only education (AOE) and abstinence-plus education (APE) almost always exclusively teach failure rates of different forms of contraception rather than teaching the effectiveness of them in preventing unwanted pregnancy and STDs.

While students in the U.S are taught in school that abstinence is the only way to protect against unwanted pregnancy and STI/STD transmission, approximately 40 percent of students are not practicing abstinence (Rabbitte & Enriquez 2019, pg. 1). Teens also lack education about condom and contraception use. As a result, teen pregnancy and sexually transmitted infections are leading public health issues in America (Rabbitte & Enriquez, 2019 pg. 1).

Relationship Between Sex Education and Teen Birth Rates

In 2012, Patricia Cavazos-Rehg and a team of researchers, examined the relationship between sex education and teen birth rates at the state level. Their study found that states with schools teaching sex education topics tended to have lower teen birth rates (Cavazos-Rehg, et al. 2012). Specifically, the study revealed “a 1 percent increase in a state's average score across all sex education topics taught was associated with 0.6 fewer births per 1,000 girls ages 15 through 17” (Cavazos-Rehg, et al. 2012). Another study in 2012 comparing different states in the U.S. found that the more abstinence was stressed in the sex education programs, the higher the rates of teen pregnancy and birth in those states (Carter 2012). A study conducted in 2008 found that teens who have been taught CSE were 60 percent less likely to become pregnant or to impregnate someone compared to teens who did receive sex education (Bright 2008). They concluded that “adolescents who receive comprehensive sex education are significantly less likely to become pregnant than adolescents who receive abstinence-only-until-marriage or no formal sex education” (Bright 2008). Data showed that the lowest teen pregnancy rates were in states that taught comprehensive sex and/or HIV education and covered abstinence along with contraception and condom use (Stanger-Hall & Hall 2011, pg. 6). Conversely, states that emphasized abstinence had higher teen pregnancy and birth rates (Stanger-Hall & Hall 2011, pg. 6).

It is difficult to assess how exactly CSE is linked to lower rates of teen pregnancy and birth. Researchers theorize that improved information about sexual activity, contraception and pregnancy may influence behavior and, as a result, outcomes such as teenage pregnancy (Paton, Bullivant, Soto 2020).

Comprehensive sex education (CSE) encourages abstinence, but also provides adolescents with information on the effectiveness of various forms of contraception and how to avoid unwanted pregnancies and STI/STDs. CSE is also well known for its inclusion of information on healthy relationships, communication skills, and human development. CSE has been shown to increase young people's knowledge related to sexual reproductive health and behaviors as well as "prosocial behaviors such as kindness, sharing and empathy; improve students' attitudes towards school and reduce depression and stress" (UNESCO 2018). Research shows that programs that combine a focus on delaying sexual activity with content about condom or contraceptive use are effective in delaying sexual initiation, reducing the frequency of sex, and reducing the number of sexual partners (UNESCO 2018).

Comprehensive Sex Education vs. Abstinence Only Education

Since federal funding for abstinence only education (AOE) began in 1971, the debate whether to use AOE or CSE in public schools has been ongoing (Stanger-Hall & Hall 2011, pg. 1).

Those in favor of comprehensive sex education (CSE) say that CSE provides adolescents with age-appropriate education on human rights, gender equality, relationships, reproduction, sexual behavior risks and prevention of ill health (UNESCO 2018). In addition, CSE "provides an opportunity to present sexuality with a positive approach, emphasizing values such as respect, inclusion, non-discrimination, equality, empathy, responsibility and reciprocity" (UNESCO 2018). On the other hand, the official stance of the U.S. government is that sex education that covers safe sexual practices sends a mixed message to students and promotes sexual activity (Stanger-Hall & Hall 2011 pg. 1; Beltz, et. al. 2015). Research does not support this notion.

Researchers surveyed 1,719 teens across the U.S. who had either never received sex education (9.4 percent of teens surveyed) had received abstinence-only education (23.8 percent of teens surveyed) or had received comprehensive sex education (66.8 percent of teens surveyed). They did not find evidence to support the idea that adolescents who received CSE have increased sexual activity or early initiation to sex (Rabbitte & Enriquez 2019 pg. 29). While the moral debate continues to lean in favor of federal funding for AOE, data clearly shows that AOE “as a state policy is ineffective in preventing teenage pregnancy” (Stanger-Hall & Hall 2011, pg. 1) and that AOE “may actually be contributing to the high teenage pregnancy rates in the U.S.” (Stanger-Hall & Hall 2011, pg. 1). Not providing naturally curious adolescents with scientifically accurate knowledge regarding sexual activity, puberty and relationships, adolescents may lead to experimentation to curb their curiosity. This experimentation, accompanied by a lack of knowledge of safe sexual practices, may result in high rates of teen pregnancy, birth, and STD/STIs (CDC 2019b). Another explanation for AOE contributing to high teen birth rates is that AOE takes a very “unrealistic approach to teen sexuality” (Schwarz 2007, pg. 117). AOE programs teach simply to not have sex as a solution to preventing pregnancies or STDs. However, they leave out the variety of ways one can contract an STD. Teens who experiment with other methods of sexual activity, such as oral or anal sex, are left vulnerable to contracting STDs (McGrath 2004). Legislators that promote AOE believe that parents should shoulder much of the responsibility for having “the talk” with their children and thus are not likely to push for mandates on sex education in schools. However, many parents support a shift towards CSE in schools. In fact, in 2007, “82 percent of adults support[ed] a comprehensive sex education curriculum that includes information of abstinence and other methods of preventing pregnancy

and STD's" (Schwarz 2007, pg. 117). In 2017, that percentage grew to 89 percent of parents who supported a wide variety of sex education topics being taught in schools (Kantor & Levitz 2017).

Another issue that has recently received more attention is AOE's lack of inclusivity. AOE does not address gender or sexual orientation. Abstinence-only curricula tend to assume students are heterosexual. In a 2019 survey conducted by the nonprofit Gay, Lesbian and Straight Education Network (GLSEN) only "8.2 percent of students said they received LGBTQ-inclusive sex education" (Oliver 2021). According to the director of GLSEN, "without LGBTQ+ inclusive sex education, queer and trans youth are left in the dark when it comes to making informed decisions about their health" (Oliver 2021). LGBTQ+ teens need to be taught about the different risks that come with other types of sexual activity and how to protect themselves against STDs and STIs to which they are particularly vulnerable. In the 2011 National School Climate Survey, "81.9 percent of LGBTQ+ students reported being verbally harassed, 38.3 percent reported being physically harassed and 18.3 percent reported being physically assaulted at school in the past year because of their sexual orientation" (GLSEN 2011). In the same survey, 84.9 percent of LGBTQ+ students reported that they heard "gay" used in a negative way (e.g., "that's so gay") and 71.3 percent heard homophobic remarks (e.g., "dyke" or "faggot") frequently at school (GLSEN 2011). While AOE does not teach students to be intolerant of other sexual orientations, by simply ignoring their existence and treating all students as if they are heterosexual, AOE likely fosters the belief among students that heterosexuality is the social norm. CSE on the other hand approaches sexuality education from an inclusive standpoint that prioritizes tolerance of diversity. It also strives to provide medically accurate information.

Federal Funding of Sex Education Programs in the U.S

Since 1982, federal funding for sex education has been regulated through three main federal programs. The Adolescent Family Life Act (AFLA), the Community-Based Abstinence Education program (CBAE), and Title V Abstinence-Only Until Marriage (AOUM). In 2010, President Obama began the shift towards less restrictive funding and both the Adolescent Family Life Act and the Community-Based Abstinence Education programs were discontinued. Title V Abstinence-Only Until Marriage (AOUM) remains in effect today and is the largest source of federal funding for sex education programs (Kaiser Family Foundation 2018; Schwarz 2007). Title V AOUM requires states to adhere to an eight-point definition of abstinence education and requires states to match every four federal dollars with three state dollars (Kaiser Family Foundation 2018; Schwarz 2007). In addition to Title V, four other funding sources are used today. The Division of Adolescent and School Health (DASH) provides funding to state education agencies and local school districts with the goal to “increase access to sex education, as well as to reduce disparities through the provision of HIV and STI prevention to young men who have sex with men” (Kaiser Family Foundation 2018). The Personal Responsibility Education Program (PREP) was established in 2010 as part of the Affordable Care Act (Kaiser Family Foundation 2018). It provides “grants to state health departments, community groups and tribal organizations to implement medically accurate, evidence-based, and age-appropriate sex education programs that teach abstinence, contraception, condom use, and adulthood preparation skills” (Kaiser Family Foundation 2018). Grants are awarded based on the number of children in the state between the ages of 10-19 (Kaiser Family Foundation 2018). Shortly after PREP was established, the Competitive Abstinence Education Program (CAE) was renamed Sexual-Risk Avoidance Education (SRAE) and “seeks to educate youth on how to voluntarily refrain from

non-marital sexual activity and prevent other youth risk behaviors" (Kaiser Family Foundation 2018). The information provided through this program is required to be medically accurate and evidence-based (Kaiser Family Foundation 2018). Lastly, in 2010 the Teen Pregnancy Prevention Program (TPPP) was established. TPPP is a five-year competitive grant program that was established under the Affordable Care Act (Kaiser Family Foundation 2018). It received an extension and continued until 2018. The grants went to “private and public entities who work to reduce and prevent teenage pregnancy through medically accurate and age-appropriate programs, especially in communities at high risk” (Kaiser Family Foundation 2018). The Trump Administration recently released a new funding announcement that requires the program to shift its focus back towards AOE (Kaiser Family Foundation 2018).

Case Study: Teen Birth and Sex Education in Arkansas

Among all states in the U.S., Arkansas has had the highest rate of teen birth per capita since 2005 (CDC 2021). According to the 2015 Arkansas YRBS, which was published in 2017, 44.7 percent of females and 47.3 percent of males in high school reported ever having sexual intercourse in 2015 (SIECUS 2017). This is significantly higher than the nationwide averages in 2015 of 39.2 percent for females and 43.2 percent for males (SIECUS 2017). The survey also identified racial and ethnic differences in sexual activity. In 2015, 57 percent of Black high school students in Arkansas, 37.7 percent of Hispanic high school students in Arkansas, 44.1 percent of White high school students in Arkansas reported ever having sexual intercourse (SIECUS 2017). Nationally, 48.5 percent of Black high school students, 42.5 percent Hispanic high school students, and 39.9 percent of White high school students reported having sexual intercourse in high school (SIECUS 2017). Some high school students in Arkansas even reported

being sexually active before the age of 13 (2.7 percent of females and 9.3 percent of males) (SIECUS 2017). Racial/ethnic differences are also observed: 6.9 percent of Black students, 12.2 percent of Hispanic students and 4.4 percent of White students reported being sexually active before the age of 13 (SIECUS 2017). Also, a high percentage of teens do not use protection when they engage in sexual activity which likely contributes to the high rates of pregnancy, birth and STDs seen among Arkansas teens. The same SIECUS state profile for Arkansas reports that in 2015 53.2 percent of female high school students and 40 percent of male high school students reported not using a condom during their last sexual intercourse (SIECUS 2017). It also found that 22.8 percent of female high school students and 16.6 percent of male high school students reported not using any method to prevent pregnancy during their last sexual intercourse (SIECUS 2017). Again, the rates differed by race with 33.6 percent of Black high school students and 51.2 percent of White high school students not using a condom during their last sexual intercourse and 20.3 percent of Black high school students and 18.7 percent of White high school students not using any method to prevent pregnancy during their last sexual intercourse (SIECUS 2017).

Arkansas public schools are not required to teach sex education; however, they are required to teach HIV education. According to Arkansas Code § 6-18-703, if sex education is taught, “abstinence must be stressed and sexual activity must be discouraged” (Guttmacher Institute, 2021a). Arkansas schools are not required to cover information about contraception, (condom use specifically), sexual orientation, or the negative outcomes of teen sex (Guttmacher Institute, 2021). The information provided in HIV or sex education does not have to be medically accurate, age appropriate, culturally appropriate, unbiased, or free from religious promotion (Guttmacher Institute, 2021a). In sum, sex education in Arkansas does not have to be objective

or accurate, it focuses on teaching about HIV and the message about sex is to not have it. If Arkansas schools choose to teach any form of sex education, they use the *Arkansas Department of Education's Health and Physical Education Standards* (see Appendix B) to guide their curriculum. These standards include topics such as contraceptives, child sexual abuse, and date rape but do not include topics related to abortion or sexual orientation (Monk 2017). To give students more useful information about sex, the program director of Arkansas's Abstinence-Only Education Program, Amanda Martin, has recently begun implementing a new program called *Choosing the Best*. This program begins in the sixth grade and "each year's discussion builds on the last, leading up to senior year when high-schoolers participate in a program called *Choosing the Best Soulmate*" (Monk 2017). During this program, "students learn about different personality traits and types that might be compatible with their own " (Monk 2017). Martin says that the program gives all the facts of birth control and while it does fit the federal guidelines of abstinence-only education, the program is as far from abstinence-only as you can get (Monk 2017). Additionally, educators in the Malvern school district have written a sex education policy-which has not yet officially been approved by the school board. Advocates throughout Arkansas are "working to encourage school boards to write policies regarding sex education that require the district to stick to a comprehensive program" (Monk 2017). These initiatives have not been implemented yet. As of now, 262 public school districts teach some form of abstinence and thirty-four districts do not teach sex education at all (Monk 2017).

The risk factors that are most prominent in Arkansas are rurality, high religiosity, limited access to abortions, contraception, and healthcare, high rurality, poverty, and large populations of racial/ethnic minorities.

Arkansas has been utilizing the federal funding resources available to states. Arkansas received \$393,184 in DASH funds in 2017, \$451,596 in PREP funds in 2017, and a \$791,939 Title V award in 2017 (SIECUS 2017). Arkansas did not receive funding from TPPP or SRAE in 2017 (SIECUS 2017). The money received from the various sources goes to the Arkansas Department of Education. The Department of Education decides what community organizations, NGO's, schools, etc. receive funding from the federal sources.

An alternative approach to sex education: The UNESCO *International Technical Guidance on Sexuality Education*

The United Nations' Education, Scientific and Cultural Organization (UNESCO) was founded November 16, 1945, by various countries from different parts of the world. While the U.S. was a founding country, it is no longer a member of UNESCO. The U.S. withdrew in 1984 because of differences in international policy making (Harris & Erlanger 2017). While the U.S. is not a member of UNESCO, it contributes financially to other organizations of the United Nations such as the Joint United Nations Program on HIV/AIDS (UNAIDS) and United Nations Children's Fund (UNICEF) The U.S. is a founding and active member of the United Nations Population Fund (UNFPA) and a member of United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) and the World Health Organization (WHO). All these organizations contribute to UNESCO's work.

Today, UNESCO has 195 members and is governed by the General Conference and the Executive Board. Their mission is to "build peace through international cooperation in education, the sciences and culture" (UNESCO 2020). To achieve this, UNESCO specifically "develops educational tools to help people live as global citizens free of hate and intolerance" (UNESCO

2020)). In 2009, the UNESCO published the first version of the *International Technical Guidance on Sexuality Education* (the Guidance) to inform comprehensive sexuality education curricula around the world. The Guidance was written by UNESCO in conjunction with several other organizations, including UNAIDS, UNFPA, UNICEF, UN-Women, and the WHO (UNESCO 2020). In the Guidance, CSE is defined as “a curriculum-based process of teaching and learning about the cognitive, emotional, physical and social aspects of sexuality [that] aims to equip children and young people with knowledge, skills, attitudes and values that will empower them to realize their health, well-being and dignity; develop respectful social and sexual relationships; consider how their choices affect their own well-being and that of others; and, understand and ensure the protection of their rights throughout their lives” (UNESCO 2018). A functional definition is also provided which specifies what a sex education curriculum must include to qualify as a CSE curriculum: CSE must be scientifically accurate, incremental, age and developmentally appropriate, curriculum based and comprehensive whether it be taught in formal or non-formal settings (UNESCO 2018). The Guidance is intended to “assist education, health and other relevant authorities in the development and implementation of school-based and out-of-school comprehensive sexuality education programs and materials” (UNESCO 2018). The CSE Guidance is meant to be useful to school boards, principals, teachers, NGOs, youth workers or advocates, and anyone involved in the design, delivery, and evaluation of sexuality education programs in schools and in the community (UNESCO 2018). The Guidance is a framework based on best international practices for curriculum development (UNESCO 2018). The purpose of the Guidance is to 1) “provide a clear understanding of CSE and clarify the desired positive outcomes of CSE”, 2) “promote an understanding of the need for CSE programs by raising awareness of relevant sexual and reproductive health issues and

concerns”, 3) “increase teachers’ and educators’ preparedness and enhance institutional capacity to provide high-quality CSE”, 4) “provide guidance to education authorities on how to build support for CSE at the community and school levels” and 5) “provide guidance on how to develop relevant, evidence-informed, age- and developmentally- appropriate CSE curricula, teaching and learning materials and programs that are culturally responsive” (UNESCO 2018).

UNESCO’s guidelines have been implemented in Western Europe, Latin America, and the Caribbean, Eastern and Southern Africa and the Asia-Pacific region (UNESCO 2018). Since the implementation, these countries have seen lower adolescent birth rates, lower rates of unintended pregnancy, abortions, and HIV infections, more accessible sexual reproductive health (SRH) services for youth and even increased prosocial behaviors and lower rates of depression and stress (UNESCO 2018). In 2016, the Guidance was updated, and a review found that the Guidance was effective in fostering “delayed initiation of sexual intercourse, decreased frequency of sexual intercourse, decreased number of sexual partners, reduced risk taking, increased use of condoms, and increased use of contraceptives” (UNESCO 2018). The U.S. has not officially adopted the UNESCO Guidance.

The Guidance includes information on the curriculum, background on CSE’s importance and effectiveness, how to implement the curriculum, lesson plans, ways to improve existing curricula, ways to monitor the success of the program, and ways to ensure the program is most effective. It is readily available on the UNESCO website. It is unknown who reads the recommendations and uses them to inform their own sex education curriculums. There is also no way to know whether some school districts in the U.S. use the Guidance since school districts are not required to disclose sources that inform their curricula. Schools in the U.S that receive

federal funding for their sex education programs are required to adhere to an abstinence-only curriculum that follows the federal eight-point definition of AOE (see Appendix C).

For this thesis, I examine UNESCO's *International Technical Guidance on Sexuality Education* to determine how the guidelines could be implemented in Arkansas, the state with the highest teen birth rates in the U.S. I will compare Arkansas's sex education curriculum with the Guidance to identify differences and gaps. I will create evidence-based recommendations for the implementation of UNESCO's guidelines into the existing sex education curriculum in Arkansas with specific attention to possible barriers to establishing a new sex education curriculum informed by the Guidance.

METHODS

The purpose of this project was to develop evidence-based recommendations for a new sex education program for Arkansas's public schools. I hypothesized that Arkansas's high rates of teen birth can be partially explained by a general lack of sex education among adolescents in Arkansas. Consequently, I hypothesized that a shift to comprehensive sex education, as outlined in the Guidance, will over time decrease the rates of teen birth by instilling adolescents with the knowledge needed to make smart decisions about their sexual health and behavior.

In order to create evidence-based recommendations for a CSE curriculum in Arkansas, I gathered data to create a socio-cultural profile of Arkansas. The state profile was used to evaluate how schools could go about implementing the recommended curriculum, what sex education topics are most relevant to adolescents in Arkansas, which community-based programs have the potential to support Arkansas public schools as they implement the recommended curriculum, how to support and prepare teachers to modify their existing curriculum and teach new material,

and how to address parents who may express concern for the content. To develop a new sex education curriculum for Arkansas, I utilized the content in key concept 8.1 from the Guidance. Key concept 8.1 is focused on pregnancy and pregnancy prevention. The recommendations addressed both the content of the new sex education curriculum and the implementation of the new curriculum into Arkansas's school curriculum. The process of developing recommendations based on Guidance key concept 8.1. and the socio-cultural profile of Arkansas consisted of five steps.

First, I create a socio-cultural profile of the state of Arkansas. The profile informed my recommendations by providing an understanding of the factors that contribute to Arkansas' high rate of teen births. I examined a variety of topics to give me a deeper understanding of Arkansas. Topics included average age of first marriage, legal age for marriage, average age of first child, marriage rate, who specifically is having kids, internet use, income and wealth, unemployment rate, occupations, rurality, poverty rates, population density, abortion rates, access to health care, minority populations, state welfare receipt, education, sexual crimes, teenage pregnancy, religiosity, and political affiliation.

Second, I identified possible external and internal barriers that might inhibit the implementation of a new sex education curriculum in Arkansas' public schools. External barriers were any factors outside of Arkansas school districts or individual schools that could hinder the implementation of a new sex education curriculum. Examples of external barriers are federal funding, parental or community push-back, religious beliefs, political views, limited access to affordable health care, rurality, etc. Internal barriers were defined as those that exist within the Arkansas school districts and individual schools. Examples of internal barriers are lack of

training for teachers, existing curriculum standards that do not specify the inclusion of sex education, limited resources like textbooks and lesson plans, etc.

Third, I gathered information about the existing sex education curriculum in Arkansas. Information came from the official *Arkansas Department of Education Health and Physical Education Standards* as well as statements from principals and superintendents about the current sex education curriculum.

Fourth, I compared and contrasted Arkansas's existing sex education curriculum and key concept 8.1 from the Guidance. The purpose of this comparison was to identify which topics are not covered in Arkansas, which topics need to be included, and if anything needs to be changed. The findings from this step informed my recommendations.

Lastly, I created recommendations that would allow topics from key concept 8.1 to be implemented into Arkansas's public-school curriculum. I crafted the recommendations based on my findings from the curriculum comparison, the analysis of the socio-cultural make-up of Arkansas and the factors contributing to the high teen births rates in Arkansas. My recommendations addressed issues such as where in the existing curriculum the new material can be added, what classes will teach the new material, at what grade level this material will be taught, and what topics will be covered. I created a table that displays an ideal curriculum as proposed in key concept 8.1 of the Guidance, the strengths and barriers that exist in Arkansas that could support or hinder the implementation of each of the topics in the new curriculum, and the modified curriculum that I recommend. The modified curriculum included considerations of strength and barriers for implementing each of the topics. For example, a topic in the ideal curriculum might be abortion. Ideally, students would learn that "an unsafe abortion poses a serious health risk to women and girls" (Key Concept 8.1). The barriers to implementing this

specific topic are state laws and regulations prohibiting abortions under most circumstances, limited health clinics that provide abortions, and the overall social stigma surrounding abortions and women and girls who obtain them. With these barriers in mind, I would recommend a modified version in which students are taught that abortions in general pose serious health risks and should not be considered without talking to a parent or doctor. In addition to the table, I provided written recommendations on implementing the curriculum into schools and how to address the barriers discussed in the chart.

FINDINGS

Factors that have been shown to contribute to high teen birth rates include unprotected sexually active teens, abstinence-only education, limited access to abortions, high rates of poverty and welfare-dependent families, large populations of racial minorities, high levels of religiosity, limited internet access, and limited access to affordable medical care (CDC 2021; Manlove, et. al. 2013; Stanger-Hall & Hall 2011; Maziarz, et al. 2020; Kaiser Family Foundation 2018; Schwarz 2007; Carter 2012; Blanton 2019; (Cavazos-Rehg et al. 2012; Rabbitte & Enriquez 2019). The state profile of Arkansas covers additional factors that provide a deeper understanding of Arkansas's social and cultural dynamics.

Arkansas Profile

Teen Birth

Since 2005, Arkansas has had the highest rate of teen births in the U.S. (CDC 2022a). As of 2020, Arkansas continues to have the highest teen birth rate in the U.S at 27.8 births per 1,000

women between the ages of 15 and 19 (CDC 2022a). New Hampshire currently has the lowest teen birth rate at 6.6 births per 1,000 women between 15 and 19 years old (CDC 2022a). Figure 1 shows the teen birth rate by state in 2020 and figure 2 shows the teen birth rate in 2005 from the CDC's website. In addition, it is relevant to this study to point out that mostly southern states have and continue to have the highest rates of teen birth in the U.S. (CDC, 2020).

Teen Birth Rate by State

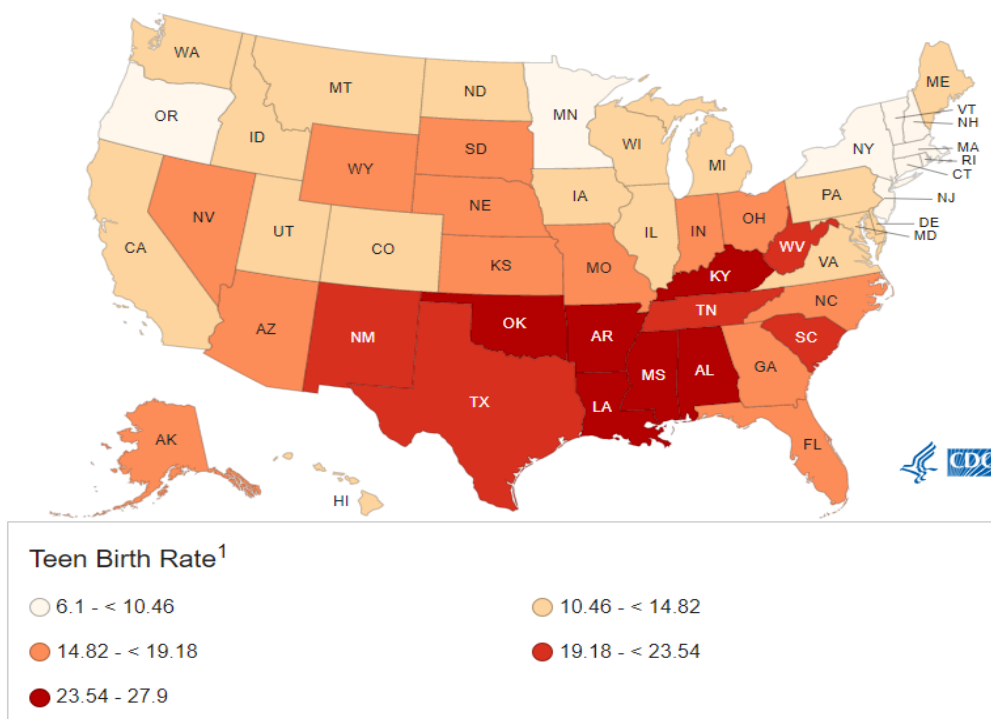


Figure 1: Teen Birth Rate by State 2020

Teen Birth Rate by State

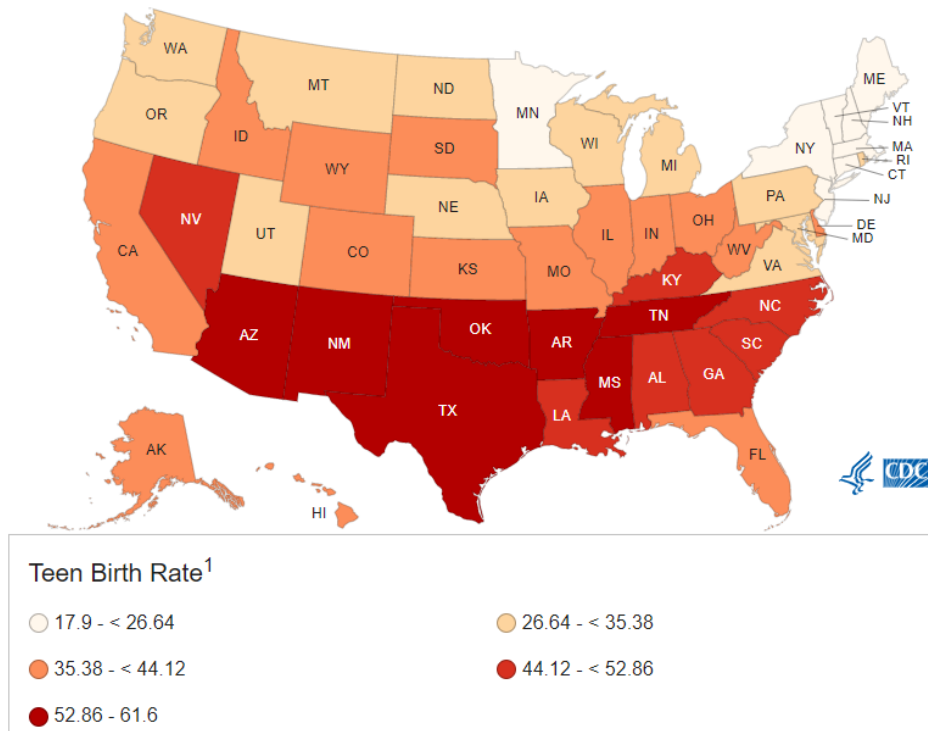


Figure 2: Teen Birth Rate by State 2005

U.S. Centers for Disease Control. 2005. "Teen Birth Rates by State".

<https://www.cdc.gov/nchs/pressroom/sosmap/teen-births/teenbirths.htm>

Marriage & Fertility

The most recent data shows that Oklahoma, Arkansas, Wyoming, Idaho, and Utah have the lowest average age at first marriage at either 23 or 24 (Pace 2021). In Arkansas, the average age of first marriage is twenty-four for women and twenty-six for men (Pace 2021). Currently in Arkansas, the minimum age of legal marriage with parental consent is 17 years old for both boys and girls regardless of circumstances (The Associated Press 2019). Previously the law stated that boys aged seventeen and girls aged sixteen could get married with parental consent (Raache 2019). There was also a contingency that if the girl is pregnant, there is no minimum age

requirement as long as a judge signs off on it (Ausburn 2019). In 2016, Arkansas along with five other states had above average rates of marriage among 15-17-year-old adolescents (McClendon & Sandstrom 2016), which means that it is more common in Arkansas for younger individuals to get married than it is in other states.

Fertility rate is defined as the number of live births in a year per 1,000 women of reproductive age- 15 to 44 years old. Arkansas's fertility rate, as of 2020, is 60.7 births per 1,000 women (CDC 2021). 46.8 percent of the 35,251 babies born in 2020 were to unmarried women ranking Arkansas as seventh for the highest percentage of babies born to unmarried women (CDC 2022b). Most of the unmarried women who had babies were between the ages of 20 and 29. This age group also has the highest birth rate in Arkansas at approximately 109.8 births per 1,000 women (March of Dimes 2021). Girls between the ages of 15 and 19 have the third highest birth rate at approximately 31.4 births per 1,000 girls (March of Dimes 2021).

Rape & Abortions

Overall, the U.S. looks extremely negatively on women who obtain abortions. This is evident in the most recent legislation being passed across the nation outlawing abortions after as early as 6 weeks and threatening criminal charges on women who go out of state to obtain an abortion. While Arkansas has not passed any new legislation regarding outlawing abortions, it is likely they will do so soon. Like the other states that have passed new legislation regarding abortions, Arkansas is highly religious and predominately Republican. Currently, Arkansas allows abortions to be performed up to 20 weeks of gestation. However, access to an abortion is limited. According to the Guttmacher Institute, as of 2017, 97 percent of the counties in Arkansas did not have clinics that provided abortions (2021b). Furthermore, 77 percent of women in Arkansas lived in one of those counties (Guttmacher Institute 2021b). Arkansas

abortions account for 0.4 percent of abortions obtained in the U.S. (Guttmacher Institute 2021b). In 2017, Arkansas provided 3,200 abortions to women (Guttmacher Institute 2021b). For a minor to obtain an abortion in Arkansas, parental consent is required, or the minor must obtain a judicial bypass. Between 2001 and 2007, the Guttmacher Institute gathered information on teen abortions. Their data showed that within those years, 972 minors obtained abortions (Joyce 2012). Out of the 972 minors, 26.6 percent were 15 years old or younger, 29.9 were 16 years old, and 43.4 were 17 years old (Joyce 2010). Ninety percent of the 972 minors who obtained an abortion did so with parental consent (Joyce 2010). The remaining 10 percent obtained an abortion through judicial bypass (Joyce 2010). The data also showed that most minors who obtained an abortion (57.4 percent) were White; 35.8 percent of minors were Black, and only 3.3 percent were Hispanic. The remaining 3.5 percent were of unknown race (Joyce 2010).

The age of consent in Arkansas is 16 years old. Arkansas has the second highest rate of rapes in the U.S. with 77.2 rapes per 100,000 people (World Population Review 2021). Based on Arkansas's high rate of poverty, scholars and researchers speculate that the state's lack of resources is among the contributing factors to high rates of rape and sexual assault (Hager 2019). However, both low-income, rural counties and higher-income, urban counties in Arkansas have high and low rates of rape (FBI 2010).

Health Care

As of 2020, the percent of uninsured citizens in Arkansas is 9.15 percent (Yang 2021). This is slightly higher than the national percentage of 8.6 percent of people who were uninsured in 2020 (U.S. Census Bureau 2021). As of 2020, 40.2 percent of Arkansas's population is insured through their employer, 23.2 percent have Medicaid, 12.9 percent have Medicare, 12.4 percent have private insurance, and 2.15 percent have military or VA coverage (Yang 2021.).

Nationally, in 2020 Hispanics had the highest uninsured rate at 18.3 percent followed by Blacks at 10.4 percent (U.S. Census Bureau 2021). Whites had the lowest uninsured rate at only 5.4 percent (U.S. Census Bureau, 2021). To aid the uninsured population, Arkansas has 139 affordable and free health clinics. Each county in Arkansas has either one or two free clinics except for Little Rock County which has five clinics (FreeClinicDirectory.com 2021).

Population

Approximately three million people call Arkansas home (U.S. Census 2021). In terms of population density, there are approximately fifty-six people per square mile which ranks the state as 34th for population density in the U.S. (World Population Review 2021). The median age in Arkansas is 38 years (World Population Review 2022). Maine has the highest median age at 43 years (World Population Review 2022) and Utah has the lowest median age at 31 years (World Population Review 2022). 23.2 percent of Arkansas's population is under the age of 18 (U.S. Census 2020).

Religion

Arkansas is deeply religious with 70 percent of the population identifying as “highly religious” (Lipka & Wormald 2016). Both Mississippi and Alabama are tied for first place for the state with the highest proportion of highly religious adults at 77 percent (Lipka & Wormwald 2016). On the other end, New Hampshire and Massachusetts are tied for lowest proportion of highly religious adults at only 33 percent (Lipka & Wormald 2016). In Arkansas, 79 percent of reported religious affiliations are to Christian-based religions and 3 percent of Arkansas residents are affiliated with non-Christian faiths. Eighteen percent of the population in Arkansas are not affiliated with a religion (World Population Review 2021).

Politics

Today Arkansas is classified as a red state. The state did vote blue in the 1976, 1992, and 1996 elections (270toWin.com 2006). Since 2000, Arkansas has been consistently and increasingly red (270toWin.com 2006). In the most recent election, Arkansas voted 62.4 percent red and 34.8 percent blue (270toWin.com 2006).

Rurality & Racial Minorities

Approximately 19 percent of the U.S. population lives in rural areas (U.S. Census Bureau 2021) that is, all population, housing, and territory not included within an urban area (U.S. Census Bureau 2021; HRSA 2021). Approximately 97 percent of the U.S. land area is classified as rural (Health Resources & Services Administration 2021). In Arkansas, 97.9 percent of the total land area is rural which makes the state the sixth most rural state in the U.S. (World Population Review 2021). Fifty counties out of the seventy-five counties in Arkansas are 100-99 percent rural (Stacker 2021) (see figure 2). Approximately 42 percent of the state's three million inhabitants live in rural areas (Cartwright 2017). The state capital of Little Rock has the highest population at 196,968 people (World Population Review 2021). Little Rock is in central Arkansas while the other highly populated cities are located in northern Arkansas. Pulaski county, where Little Rock is located, is the most populated county in Arkansas and has 503 people per square mile (Index Mundi 2019). The least populated county is Calhoun County with 8.5 people per square mile (Index Mundi 2019). Calhoun county is 100 percent rural (Stacker 2021). I created the image below to show the counties in Arkansas that are 99-100 percent rural. Counties that are green are 99-100 percent rural and all other counties are white.

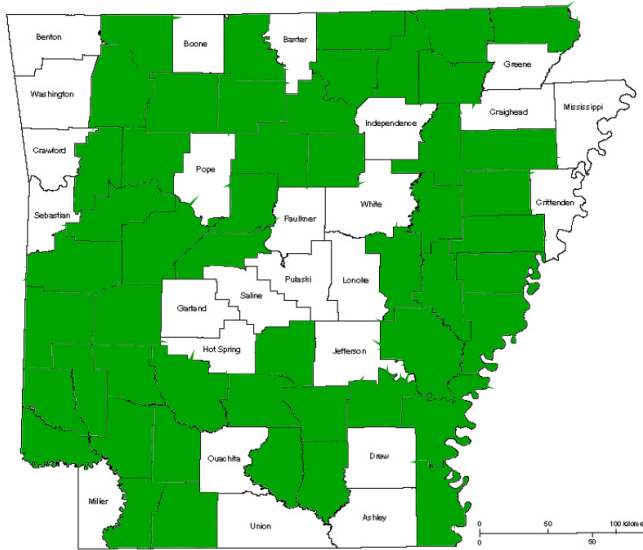


Figure 3: Arkansas Counties that are 99-100 Percent Rural

Seventy-nine percent of Arkansas's population are White, 15.7 percent are Black, and 7.8 percent are Hispanic (U.S. Census 2019). Within the U.S, 60.1 percent of the population are White only not Hispanic or Latino, 13.4 percent are Black only, and 18.5 percent are Hispanic (U.S. Census 2021). Thirty-one percent of the children under the age of one were classified as minorities (World Population Review 2021).

Poverty & Unemployment

In Arkansas, 15.2 percent of the population lives in poverty which is higher than the national average of 11.4 percent (Shrider, et. al. 2021). The median household income in Arkansas is only \$49,475 (U.S. Census 2020) compared to the national median household income of \$64,994 (Shrider, et. al. 2021). The extreme poverty rate- living on less than \$1.90 per day- in Arkansas is 10 percent (Spotlight on Poverty 2019). 7,014 adults and children receive TANF benefits, 244,295 children receive food stamps, and 3,900 families receive childcare

subsidies (Spotlight on Poverty 2019). 145,000 Black and Hispanic children live below the 200 percent poverty line (Spotlight on Poverty 2019).

The highest unemployment rate in a U.S. state is 6.5 percent (Bureau of Labor Statistics 2022). Arkansas's unemployment rate is the twelfth lowest in the U.S. at 3.1 percent (Bureau of Labor Statistics 2022). The most common occupations in Arkansas are management, business and financial operations, computers and mathematics, architecture and engineering, and life, physical, and social science (Bureau of Labor Statistics 2020). While unemployment is less of a problem in Arkansas, Arkansas does have an issue with income inequality. According to Arkansas Advocates for Children and Families (AACF) "Arkansas is among the states with the highest income inequality in the country...with the top five percent of households having average incomes 15 times as large as the bottom 20 percent of households" (2021).

Education

Lower household incomes tend to correlate with lower levels of education. In more urban counties, which also have high median household incomes, the percentage of high school graduates is approximately 90 percent (Index Mundi 2019). In more rural counties which have lower median household incomes as compared to the urban counties, the percentage of high school graduates is approximately 78 percent (Index Mundi 2019). The difference in educational attainment between rural and urban counties is more pronounced at the level of a bachelor's degree. The percentage of those obtaining higher education in rural counties with lower household incomes drops to 14 percent in Phillips County and 11 percent in Clay County (Index Mundi 2019). In urban and higher household income counties, the percentage of people obtaining higher education is 34 percent in Pulaski County, 26 percent in Saline County, and 32 percent in Benton County (Index Mundi 2019).

The most recent data available on internet access is from 2018. As of 2018, 88 percent of households in Arkansas had a computer in the home and 77 percent of households had access to the internet (NCES 2019).

Possible Barriers to Implementing Recommendations

A variety of factors need to be considered when school districts try to alter their curriculum standards or content, especially when it concerns a sensitive topic. I anticipate quite a few barriers to implementing a new sex education curriculum into the public schools in Arkansas.

First and foremost is the issue of Arkansas's conservative political landscape. Arkansas is a Republican state and highly religious. State and local governments continue to face backlash from local conservative organizations when progressive bills come up on the docket. There have been numerous accounts of sex education related bills being shot down in the Senate because the content was deemed too progressive. Most recently though, in February 2019, Senate Bill 304 was introduced. It was known as the Arkansas Healthy Lifestyle Education Act, and it sought to require that education curricula include age-appropriate instruction on both abstinence and contraceptives to prevent unintended pregnancy and sexually transmitted infections. It also included an opt-out policy. Senate Bill 304 failed due to interventions from conservative organizations like the Family Council. As legislation that seeks to advance the sex education curriculum in Arkansas continues to be defeated, legislation that promotes anti-abortion laws is passed. House Bill 1439 which prohibits abortions after 18 weeks in Arkansas and Senate Bill 6 which aims to abolish abortion in Arkansas have both been passed. Schools also face difficulties getting concerned parents to agree to allow their children to learn about certain topics in school.

Even if progressive legislation gets passed, the opt-out policy allows parents to remove their children from sex education instruction if they do not agree with the content for any reason. A popular reason for opting out of sex education is for “religious reasons.” Parents also often opt out if they feel that the material is not appropriate for their child. Parents often argue that middle school children do not need to learn about sex because sex should be saved for marriage.

Another major barrier to changing the sex education curriculum in Arkansas is the lack of funding available to schools. Without adequate funding schools simply cannot implement a new curriculum or can only implement it by cutting corners. Schools might decide to not properly train teachers or fail to provide resources to students resulting in an ineffective curriculum. In a snowball effect, the ineffectiveness of the curriculum will likely lead to any funding being pulled. The recommendations need to be implemented properly for them to yield results, and the implementation will cost money which rural school districts often struggle to receive. On average, rural school districts receive only 17 percent of state education funding, yet they make up 50 percent of all school districts nationwide (Public Schools First 2021). Furthermore, grants that are awarded to schools are awarded based on the number of students, not how much money a school actually needs (Public Schools First 2021). In Arkansas, K-12 schools receive \$1,253 per student in federal funds (Hanson 2021) and \$6,031 per student in state funds. Nationwide, K-12 schools receive \$1,131 per student in federal funds and \$6,785 per student in state funding (Hanson 2021). Arkansas spends \$10,184 per student (Hanson 2021). While the national average of school funding and Arkansas’s school funding are similar, this simply points to the larger issue of insufficient funding that exists in America. In fact, the U.S does not meet UNESCO’s benchmark of a 15 percent share of total public expenditure on education (Hanson 2021). Insufficient funding also makes training teachers for sex education difficult. In general, teachers

in rural areas lack access to high quality, relevant professional development (Public Schools First 2021). Turnover rates are also higher in rural schools (Public Schools First 2021) meaning that funding often goes towards hiring and training new teachers (Public Schools First 2021).

Access to the internet is definitely a barrier to the implementation of a new sex education curriculum. In the wake of Covid-19, many schools moved to online platforms. To address disparities in access to computers, many school districts gave students laptops for use at home. However, this did not address the issue of internet access within the home. 2018 data from the National Center for Education Statistics (NCES) shows that out of the 1,156,300 households in Arkansas, only 898,700 (77 percent) have internet access (2020). This is a problem not just for sex education, but for education in general.

Next, there is the issue of access to health care or resources such as contraception or physical exams. As of 2020, 43,000 children did not have health insurance in Arkansas (Brock 2021). To obtain physical exams or a prescription for contraceptives, an adolescent will need to talk to a doctor or nurse. However, often adolescents do not have access to health care providers due to lack of health insurance or lack of available providers in the area. To address this issue, Arkansas launched a school-based health center (SBHC) program (Smith & McKenzie 2020). SBHC provides services to school-age children and adolescents, their family members, and the broader community (Smith & McKenzie 2020). SBHC also offers support services to teen mothers from disadvantaged communities in the form of medical, mental, dental, and vision care (Smith & McKenzie 2020). As of 2020-21, Arkansas had 40 SBHC (marked by the red flags) across the state which can be seen in figure 3 (Smith & McKenzie 2020).



Figure 4: Arkansas School-Based Health Centers 2020-21

Smith, Amylynn and Sarah C. C. McKenzie. 2020. "Arkansas School-Based Health Centers (SBHC) and Academic Achievement".

While the above map may portray that teens throughout Arkansas can access health care resources only 27.5 percent of the 40 schools with SBHCs are high schools and only 10 percent are middle schools (Smith & McKenzie 2020). This means that the majority of SBHCs are providing services to elementary level students - who are the least likely to need them.

Arkansas Sex Education Curriculum

Below is a summary of Arkansas's sex education policies and requirements as outlined in the Sexual Information and Education Council of the U.S. (SIECUS), state profile of Arkansas.

- Arkansas schools are not required to teach sex education or instruction on HIV or STIs.
 - If sex education is offered, curriculum must stress abstinence.
 - If sex education is offered, curriculum is not required to include instruction on consent.

- If sex education is offered, curriculum is not required to include instruction on sexual orientation or gender identity.
- Arkansas has no standard regarding the ability of parents and guardians to remove their children from sex education instruction.
- Arkansas has no standard regarding medically accurate sex education instruction. However, instruction on dating violence must be based on scientific research.
- Arkansas statute does not require curriculum to include instruction on pregnancy outcomes if sex education is taught in schools.
- Local school boards are empowered to establish school-based health clinics, which may provide sex education

Arkansas's Human Growth and Development unit from their Health and Physical Education Standards is the only unit that references human growth and development (Appendix B). No other units on sexual education exist.

UNESCO's Technical Guidance on Sexuality Education Key Concept 8.1

Key concept 8.1 of the Guidance is focused on pregnancy and pregnancy prevention (Appendix A). The Guidance provides learning objectives for children from five years old to 18 years. The learning objectives are broken down into the age ranges of 5-8 years, 9-12 years, 12-15 years, and 15-18 years. For this thesis, I will focus on adolescents that are 11-13 years of age- the typical years of middle school attendance.

The chart below shows the comparison of Arkansas's current curriculum from the Human Growth and Development unit and the curriculum that UNESCO recommends in Key Concept 8.1 for the age range of 5-15 years old. I am using a slightly expanded age range because the topics covered for this age range are more in line with the topics taught to middle school students in Arkansas.

Table 2 Arkansas’s Current Curriculum Compared to Key Concept 8.1

Arkansas’s Current Curriculum	UNESCO’s Recommendations
Analyze the growth patterns and developmental changes in humans throughout the life-cycle	
Describe behaviors and methods for pregnancy prevention, including abstinence	Analyze effective methods of preventing unintended pregnancy and their associated efficacy
Compare and contrast abstinence to other forms of contraception to reduce the risks of unintended pregnancy	State that correct and consistent use of condoms and modern contraception can prevent unintended pregnancy among the sexually active
	Demonstrate how to use a condom correctly
	Explain that emergency contraception can prevent unintended pregnancy, including pregnancy through lack of contraception, contraceptive misuse or failure, or sexual assault
	State that natural contraceptive methods are not as reliable as modern methods but, in the absence of modern methods, natural methods are better than nothing and may be considered with advice from a health professional
	State that sterilization is a permanent method of contraception
	Analyze where condoms can typically be accessed locally
	Recognize the importance of using contraception correctly, including condoms and emergency contraception
	Demonstrate ways to access sources of contraception
	Demonstrate confidence in discussing and using different contraceptive methods

<p>Examine factors related to prenatal care, pregnancy & childbirth e.g., drug risks, fetal alcohol syndrome, low birth weight, nutrition, regular check-ups</p>	<p>Define too early childbearing and explain the associated health risks</p> <hr/> <p>Acknowledge that ensuring a healthy pregnancy is not just the responsibility of the mother</p> <hr/> <p>Demonstrate how to access prenatal services</p> <hr/> <p>Develop a plan for supporting a healthy pregnancy</p> <hr/> <p>Assess prenatal practices that either contribute to a healthy pregnancy or threaten a healthy pregnancy</p>
<p>Apply a decision-making process to various life situations e.g., sexual activity, teen pregnancy</p>	<p>Explain the concept of personal vulnerability to unintended pregnancy</p> <hr/> <p>Develop a plan for accessing a preferred method of modern contraception for when they may need it</p> <hr/> <p>Assess personal benefits and possible side effects and/or risks of available modern methods of contraception</p> <hr/> <p>Examine factors that help determined the most appropriate method or mix of contraceptives among the sexually active</p>
<p>Analyze the importance of sexual abstinence and other forms of contraception in teen relationships</p>	<p>State that abstaining from sexual intercourse is an effective method to prevent unintended pregnancy if practiced correctly and consistently</p>
<p>Examine short-term and long-term responsibilities and consequences of sexual behaviors e.g., contraception and pregnancy</p>	<p>Identify the range of health and support services available to a pregnant woman or girl, in the case of unintended or intended pregnancy</p> <hr/> <p>Understand that unsafe abortion poses a serious health risk to women and girls</p>
	<p>Describe the benefits of child-spacing</p> <hr/>

	Recognize the importance of dealing and spacing pregnancies
	Express preferences about if and when to become pregnant
	Evaluate the risks and benefits of adoption
	Acknowledge that adoption is an important option for people who are not ready or able to become parents

RECOMMENDATIONS

The chart below depicts how I reached my recommendations for a modified curriculum for Arkansas. The ideal learning objectives are the learning objectives from key concept 8.1 of the UNESCO *International Technical Guidance on Sexuality Education*. They include the learning objectives taught for all age groups - 5 to 18. In my curriculum recommendations, the ideal learning objectives of concept 8.1 are condensed into a curriculum that would be taught to middle school aged students in Arkansas. The strengths section highlights the positive aspects of the curriculum and why teaching it would be beneficial to students. The barriers section presents the specific barriers that could prevent the ideal learning objectives from being implemented into the new curriculum. After reviewing the strengths and barriers against the ideal learning objectives, I arrive at the modified learning objectives. The modified learning objectives are a compromise between what UNESCO recommends and what Arkansas might be able to implement based on their socio-cultural profile and identified barriers.

Table 3 Curriculum Recommendations

Curriculum Topics	Ideal Learning Objectives (UNESCO Recommendations)	Strengths	Barriers	Modified Learning Objectives
Responsibility	<p>Explain the concept of personal vulnerability to unintended pregnancy</p> <hr/> <p>Acknowledge that ensuring a healthy pregnancy is not just the responsibility of the mother</p> <hr/> <p>Acknowledge that deciding to use a condom or other contraceptives is the responsibility of both sex partners</p> <hr/> <p>Acknowledge that preventing pregnancy is the responsibility of both men and women</p>	The topic of responsibility is unlikely to be refuted by any religious or political affiliation	Push-back based on the cultural norm that women are primarily responsible for not getting pregnant is likely	<p>Explain the concept of personal vulnerability to unintended pregnancy</p> <hr/> <p>Acknowledge that ensuring a healthy pregnancy is not just the responsibility of the mother</p> <hr/> <p>Acknowledge that deciding to use a condom or other contraceptives is the responsibility of both sex partners</p> <hr/> <p>Acknowledge that preventing pregnancy is the responsibility of both men and women</p>
Biology of Pregnancy	<p>Recall that pregnancy begins when egg and sperm unite and implant in the uterus</p> <hr/> <p>List the common signs of pregnancy</p> <hr/> <p>Describe the tests available to confirm a pregnancy</p>	Students need to understand how pregnancy occurs in order to have safe sex or understand why they are told to not engage in sex	<p>This subject might already be covered in human biology class</p> <hr/> <p>Some people believe that educating kids on the mechanics of pregnancy deprives them of their “innocence”</p>	<p>Recall that pregnancy begins when egg and sperm unite and implant in the uterus</p> <hr/> <p>List the common signs of pregnancy</p> <hr/> <p>Describe the tests available to confirm a pregnancy</p>
Contraception	<p>Analyze effective methods of preventing unintended pregnancy and their associated efficacy</p> <hr/> <p>Correct myths about modern contraceptives, condoms, and other ways</p>	If schools are unwilling to teach the logistics of using contraception in a sex education course or health class, the school-based health	Instruction is not currently required by law to include information on contraception in any form	<p>Analyze effective methods of preventing unintended pregnancy and their associated efficacy</p> <hr/> <p>Correct myths about modern contraceptives,</p>

	to prevent unintended pregnancy	clinics that exist could provide students with the information		condoms, and other ways to prevent unintended pregnancy
Access to Contraception	Demonstrate ways to access sources of contraception	The existence of school-based health clinics in Arkansas means that schools have the infrastructure to provide students with condoms at the very least and referrals to clinics where they can obtain other forms of contraception at the most	It is possible that parents might feel that teaching students about contraception means they will initiate sex early on	State where forms of contraception can be accessed
	Assess personal benefits and possible side effects and/or risks of available modern methods of contraception		If students do not have health insurance, they may be unable to purchase contraception	State that school-based health clinics can provide students with information about contraception but cannot provide students with contraception other than condoms
	Examine factors that help determined the most appropriate method or mix of contraceptives among the sexually active			
Use of Contraception	Demonstrate how to use a condom correctly	If schools are unwilling to teach the logistics of using contraception in a sex education course or health class, the school-based health clinics that exist could provide students with the information. SBHC would need to be expanded and put in more middle and high schools and provided with free condoms to provide students	Use of female condoms is not a widely accepted form of contraception, and many kids do not even know they exist	State that correct and consistent use of condoms and modern contraception can prevent unintended pregnancy among the sexually active
	Describe the steps to using both male and female condoms correctly for reducing the risk of unintended pregnancy		Some religions such as Catholicism teach that contraception should not be used. Because of this, parents might object to the topic of contraception use being taught to their students.	Recognize the importance of using contraception correctly including condoms
	State that correct and consistent use of condoms and modern contraception can prevent unintended pregnancy among the sexually active			
	Recognize the importance of using contraception correctly including condoms and emergency contraception	Schools likely will not agree to mention emergency contraception		

Abstinence	State that abstaining from sexual intercourse is an effective method to prevent unintended pregnancy if practiced correctly and consistently	This is what is currently being taught in schools	No foreseen barriers	State that abstaining from sexual intercourse is an effective method to prevent unintended pregnancy if practiced correctly and consistently
	Explain that not having sexual intercourse is the most effective form of avoiding unintended pregnancy			Explain that not having sexual intercourse is the most effective form of avoiding unintended pregnancy
Abortion & Adoption	Understand that unsafe abortion poses a serious health risk to women and girls	Arkansas is a highly religious and conservative state; thus, it is likely that schools would be allowed to teach about adoption as a possible solution to an unintended pregnancy	Arkansas is a highly religious and conservative state. It is very unlikely that schools will be allowed to provide students with any information on abortions.	Evaluate the risks and benefits of adoption
	<p>Evaluate the risks and benefits of adoption</p> <p>Acknowledge that adoption is an important option for people who are not ready or able to become parents</p>			Acknowledge that adoption is an important option for people who are not ready to become parents
Early Child-Bearing	Define too early child-bearing and explain the associated health risks	<p>Discussing early child-bearing will help students understand that sex has the potential to result in a child and thus should be taken seriously</p> <p>Students will understand that they are too young to have a child and thus are too</p>	Given that early marriage is a widespread practice among some religions, it is possible that parents will not agree with their children learning that early marriage is wrong	Define too early child-bearing and explain the associated health risks
	<p>Recognize the importance of delaying pregnancy</p> <p>List health risks associated with early marriage and early pregnancy and birth</p>			<p>Recognize the importance of delaying pregnancy</p> <p>List health risks associated with early pregnancy and birth</p>

		young to have sex		
Family Planning	Describe the benefits of child-spacing	This topic provides the perfect opportunity for students to learn about being married before having children which is in line with Arkansas's current teachings about abstinence until marriage	Parents may feel that if students are taught that they are too young to have children at the moment, there is no reason to teach them about family planning for the future	Describe the benefits of child-spacing
	Recognize the importance spacing pregnancies			Recognize the importance spacing pregnancies
	Express preference about if and when to become pregnant			Express preference about if and when to become pregnant-particularly about waiting to have children until one is married
Healthy/ Unhealthy Pregnancy	Assess prenatal practices that either contribute to a healthy pregnancy or threaten a healthy pregnancy	Teaching students about healthy vs. unhealthy pregnancies also teaches them about the responsibility that comes with pregnancy and being a parent	Parents may feel that if students are taught that they are too young to have children at the moment, there is no reason to teach them about how to support a healthy pregnancy	Assess prenatal practices that either contribute to a healthy pregnancy or threaten a healthy pregnancy
	Develop a plan for supporting a healthy pregnancy			
	Demonstrate how to access prenatal services			

Recommendations for Implementation

I recommend that the modified curriculum be implemented into middle schools. Adding the new material to existing health classes is ideal. Currently, the Arkansas Board of Education requires students to complete 0.5 units of health and safety. A half credit is a course that is taken in one semester.

According to *The International Technical Guidance on Sexuality Education*, “ensuring that parents/caregivers understand, support and get involved with the delivery of CSE is essential to ensure long-term results” (UNESCO 2018). The most important step in implementing this curriculum is making sure that students actually receive it, which means it would be ineffective if

parents opt out their children. To mitigate this, schools should send home information packets so that parents will receive detailed information on the curriculum. If parents know exactly what their children are going to learn, they might be more comfortable letting their children learn sex education in school.

In their section on building support for the implementation of CSE programs, *The International Technical Guidance on Sexuality Education* specifically states that “community leaders can pave the way for acceptance and support of CSE programs” and that “it is crucial to work with [community leaders] to counter inaccurate information and dispel any existing myths and misconceptions around CSE that the community might have” (UNESCO 2018). Given that most of Arkansas’s population is considered highly religious, support from church leaders would be an effective tool to make parents feel more comfortable with the sex education curriculum.

While schools work to restructure their curriculum, I recommend that more SBHCs open, especially in middle schools. Since funding is always a complication, I recommend that school districts start by relocating the SBHC in elementary schools to middle schools. SBHC should provide students with free condoms, authorized personnel for STD tests, information on where to obtain various forms of contraception, information on family planning and resources for students who are pregnant.

In addition to using school-based health clinics to their fullest potential, Arkansas schools should look into adapting Ananda Martin’s program *Choosing the Best*. As of 2017, the program is used in fifty-one schools across twenty counties in Arkansas (Monk 2017). Not only does this program fit the federal guidelines of abstinence-only, making it eligible for federal funding, but it does so in a way that “is as far from abstinence-only as you can get” according to Martin (Monk 2017). The program instructs students about sexually transmitted infections and methods of

contraception. Students also participate in a program called *Choosing the Best Soulmate*, a program where seniors in high school learn about personality traits that might be compatible with their own (Monk 2017). I believe that using this program more widely would be beneficial. This program should be added to teach the recommendations in this paper.

Recommendations for Addressing Barriers

Internal Barriers

The first internal barrier I would like to address is the opt-out policy which needs to be addressed to ensure students actually receive sex education when it is available in schools. This policy allows parents to opt their children out of sex education for any reason. One way to overcome this issue is to send home a detailed overview of what the students will be learning in sex education. If parents are aware of exactly what their students will be learning in the classroom, they will be more likely to allow their child to attend. If parents still feel as though a classroom is not an appropriate place for their child to learn sex education, the schools could send home education materials and encourage parents to talk to their children about the information.

The second barrier is teachers not having the skills to teach sex education or being uncomfortable with the material. This barrier could be addressed in two different ways. First, schools could hire specific sex educators that are trained to teach comprehensive sex education to adolescents. Second, schools could provide already employed teachers with training on how to teach sex education to adolescents. This option is less expensive for schools since the cost of training is approximately \$3,000 per educator (Options for Sexual Health 2022) and the average salary for a teacher in Arkansas is \$56,000 a year (Salary.com 2022). Based on this information,

I recommend that Arkansas public schools provide training to health teachers so that they are confident and equipped with the information they need to effectively educate adolescents on sexual education.

A third barrier is the fact that schools do not feel the need to teach a separate sex education curriculum because reproduction is covered in health sciences or biology courses. The problem is that required biology courses often focus on general biology, not just human biology. So, while students learn about the process of reproduction, they might not learn about human reproduction. I strongly recommend that human reproduction is taught in all health classes covering topics from menstruation, sex, to pregnancy, and birth.

External Barriers

An external barrier that needs to be addressed is the common notion that sex education deprives children of their ‘innocence’ or leads to early sexual initiation. The UNESCO Guidance makes it very clear that “research from around the world indicates that sexuality education rarely, if ever, leads to early sexual initiation” (UNESCO 2018) and that CSE has not been proven to have a direct impact on the age of sexual initiation (UNESCO 2018). Furthermore, “evidence illustrates that children and young people benefit from receiving appropriate information that is scientifically accurate, non-judgmental and age- and developmentally-appropriate” (UNESCO 2018). Since this barrier is based on a misconception, parents will need to be educated about the effectiveness of comprehensive sex education, data on sexual initiation following CSE, and breadth of information, in addition to sex, that is taught to their children. It is important that parents understand that sex education teaches students not just about sex, but also about the body, puberty relationships, life skills, refusal skills, contraception, pregnancy, consent, and other related topics. I specifically recommend including research information on the

effectiveness of CSE in an overview that is sent home to parents along with the overview of what is going to be taught to their children in the sex education curriculum.

Arguably, the external barrier that has the largest effect on the implementation of any sex education curriculum would be the conservative nature of Arkansas due to the level of religiosity in Arkansas. As previously established, Arkansas is a highly religious state with 77 percent of adults identifying as highly religious. Seventy-nine percent of adults in Arkansas are Christian, with 46 percent of them being Evangelical Protestant. Parental concern regarding sex education based on religious views is common and is addressed in UNESCO's list of possible concerns. According to the Guidance, sex education in schools should work in conjunction with community beliefs "in order to adapt the content to the local cultural context" (UNESCO 2018). I recommend including community churches and church youth leaders early in the implementation process. By including churches and church youth leaders, schools can build rapport and trust with these religious leaders. In return, the religious leaders will be able to encourage parents to allow their children to attend sex education classes without fear that the material will contradict or negate religious teachings or practices.

Access to healthcare is another important external barrier that needs to be addressed for the recommendations to be effective at lowering teen birth rates. As previously stated, 43,000 children did not have health insurance as of 2020 (Brock 2021). Plus, out of the forty schools in Arkansas that have school-based health clinics (SBHC), only eleven of them are in high schools and only four are in middle schools. If more SBHCs were available in high schools and middle schools, more students who need their services would have access to them. I recommend cutting SBHC from less populated elementary schools and reallocating those funds to placing SBHC in more middle schools and more high schools, if possible.

Finally, school funding needs to be addressed. According to the most recent data, Arkansas spends \$5.04 billion annually in total school funding (Hanson 2021) and the difference between spending and funding is \$706.5 million (Hanson 2021). It is unlikely that the schools in Arkansas will receive \$706.5 million to cover this deficit. I recommend schools re-evaluate their individual allocation of funds. If funding can be cut in some places and re-allocated towards comprehensive sex education for students, Arkansas would be able to work towards building an effective sex education program for students.

DISCUSSION

Key Findings

The first thing I noticed, and the reason for choosing the Guidance, is that Arkansas's curriculum standards are very vague compared to those in the Guidance. For example, one of the standards in Arkansas's health, growth and development unit is "compare and contrast abstinence to other forms of contraception to reduce the risks of unintended pregnancy." In the Guidance this concept is broken down into separate specific learning objectives that students must demonstrate proficiency in. Instead of just saying that students should be able to compare and contrast various forms of contraception, the Guidance specifies that students must be able to 1) state that correct and consistent use of condoms and modern contraception can prevent unintended pregnancy among the sexually active, 2) demonstrate how to use a condom correctly, 3) explain that emergency contraception can prevent unintended pregnancy, including pregnancy through lack of contraception, contraceptive misuse or failure, or sexual assault, 4) state that natural contraceptive methods are not as reliable as modern methods but, in the absence of modern methods, natural methods are better than nothing and may be considered with advice

from a health professional and 5) state that sterilization is a permanent method of contraception (UNESCO 2018). By being very specific, nothing is left to interpretation by teachers. There is little risk of some topics getting covered and others not or different topics being covered at different times based on teacher preference. Providing teachers with specific learning objectives ensures that every student learns the same content. It also allows parents to know exactly what their children are learning.

Second, while gathering information on Arkansas public schools, principals and superintendents in different school districts informed me that their schools do not offer any form of sex education. So, while standards for sex education exist in Arkansas, many schools do not teach it. The principals and superintendents did not disclose the reasons behind the lack of teaching sex education at their school. Arkansas is not required by law to teach sex education in public schools. This points to a larger issue with state legislation. Eventually there needs to be legislation that requires public schools in Arkansas to teach sex education to students. Even longer term, there needs to be federal legislation that requires all public schools in the U.S to teach sex education. Until that happens, individual schools will have to take the initiative to implement aspects of comprehensive sex education. Ideally, as students become more educated and rates of teen birth and STDs decrease, legislators will realize the effectiveness of CSE which might persuade the, to provide funding for sex education.

This brings me to the next key finding of this study. Many of the barriers that I identified are deeply seeded and will require time and work to overcome. I have provided basic recommendations for first steps but to overcome issues like funding, social stigma, and religious backlash, systemic changes will need to be made. A first step for this change is to assign an entity with sole responsibility for sex education in the U.S. As rates of teen birth, teen pregnancy,

STDs, abortions, and other health issues decrease and knowledge about contraception use, safe sexual practices, and reproduction processes increase, support of comprehensive sex education might build. It is not enough for parents and students to want change. Those who are in power and can effect real change must act in the best interest of their people. In the case of sex education in public schools, legislators need to push for funding to be allocated specifically to sex education curriculum development. This must occur at both the state and federal level. Once schools have the funding to train teachers or hire sex educators and obtain comprehensive materials for students, implementing comprehensive sex education curriculums into schools will be easier. However, legislators might not want to push for CSE if they are not convinced about the long-term effectiveness of these programs. Thus, I recommend that schools make the first move and attempt to make minor changes that they can slowly build upon as support grows.

Fourth, I found clear racial disparities when it comes to the ability to obtain resources to prevent teen pregnancy. White teens are more likely to obtain an abortion than their peers of racial minorities. White teens also have more access to healthcare and thus greater access to birth control and at little cost. Racial minorities are at a clear disadvantage when it comes to preventing teen pregnancy. In addition, they are more likely to engage in sexual activity at an earlier age due to a variety of cultural and social reasons that White teenage girls do not face. When implementing any new curriculum, the disadvantages for racial and ethnic minorities will need to be considered and equal access to healthcare services, contraception, etc. will need to be ensured.

Implications

The recommendations provided in this study have the potential to effect lasting change within the Arkansas school districts, other states' school districts, and federal legislation. As school districts begin to implement the recommendations, they will begin to see changes in the rates of teen birth. In addition, increased use of contraception and lower rates of rape and STDs are likely. Overtime, sex education will shift from teaching students to not have sex to teaching them why they should wait and how to be safe should they choose not to wait. Hopefully, positive outcomes from implementing my recommendations will convince more school districts, and eventually, state governments to create legislation that supports CSE in public schools.

Limitations & Future Research

The recommendations provided in this study only looked at how the Guidance could be implemented in Arkansas and how specific barriers in Arkansas can be addressed. If the recommendations were to be implemented in other states, the specific barriers in those states would have to be identified. For example, some states might not have any SBHC to aid in providing services to students. Other states might struggle with strict legislation that bars them from implementing any of my recommendations. Each state will have to evaluate its own specific situation and make decisions about implementing a sex education curriculum that meets their individual needs.

Another limitation of this study is that this thesis did not specifically address racial differences of teen births. White teenage girls tend to have more financial support and access to resources to deal with an unwanted pregnancy compared to teenage girls of racial minorities. This was clearly demonstrated in the data I found on access to health care and abortions. Racial

discrepancies must be addressed properly to ensure that everyone has equal access to the recommended curriculum and to services such as contraception, abortions, prenatal care, and women's health clinics.

Future studies should look at the effectiveness of the *Choosing Your Best Soulmate* program that is beginning to be implemented in Arkansas. The director of this program mentioned that while it does meet the standards of AOE, it does not just teach abstinence to students. Since this program is still new, it is not clear just how effective it is at preventing teen pregnancy and lowering rates of teen birth and STDs. Depending on the effectiveness of this program, the recommendations might be able to be further modified to work within the *Choosing Your Best Soulmate* program.

Future studies should also examine overall effectiveness of the recommendations by implementing them in other states with high teen birth rates and conducting follow up research to see how the rates are progressing. Currently, the next three states with the highest rates of teen birth are Mississippi, Louisiana, and Oklahoma. It might also be useful to examine how the recommendations work in states with the lowest rates of teen birth. These states would be New Hampshire, Massachusetts, Vermont, and Connecticut.

Next Steps for Arkansas

Should schools in Arkansas choose to implement this curriculum, they would need to first gain the approval of the school board or superintendent to make changes to the curriculum. This process might include negotiating what parts of the curriculum are going to be allowed to be implemented into schools. I did my best to eliminate aspects of the *International Technical Guidance* that may be too progressive for Arkansas, but it is possible that counties of Arkansas

that are more religious will not want to implement all my recommendations. After the new curriculum is decided on, the next step for Arkansas's schools is training teachers or hiring teachers who are qualified to teach the new curriculum. As I previously stated, it will be more cost effective for schools to train existing health teachers to teach the new material. The training courses for sex education are easily found online and simple to complete registrations. Materials can be obtained online, and training can be done virtually. Once teachers are trained, schools can begin the process of implementing the curriculum into the classroom. This is the point where my recommendations will be useful. Schools will need to work on gaining community and parental support as well as teaching the curriculum to students. Schools will want to focus on keeping the community informed of the changes they are making. It is imperative that parents not feel as though they are being blind sighted but that they have an active say in what their children are learning. Schools should pay special attention to schools that have substantial risk factors. This would be any schools that have high populations of racial minorities or low-income families, schools that are in highly rural areas or areas with limited healthcare resources. It would be useful for schools to document changes in students' behaviors or thoughts on sexuality related topics overtime to see if the curriculum is effective in lowering rates of teen birth specifically. Furthermore, if schools are tracking these changes, they will have the ability to take this information to local government and make a case for increased funding for sex education materials.

Conclusions

This thesis has the potential to affect lasting change in America's sex education programs. First and foremost, my recommendations approach this issue from a practical and

straightforward way. I provide a state with a high teen birth rate with practical steps to shift their sex education curriculum. Overtime, schools will see lower rates of teen birth rates and will be able to make reasonable cases for their local governments to provide funding to their curriculum. In addition, the positive parental support will spark a social shift in how communities view sex education. It is possible that this will lead to parents demanding that political candidates focus more attention on the issue of sex education which in turn will lead to more elected leaders having sex education as a ticket issue. In a snowball effect, sex education has the potential to become a major ticket issue as more parents and communities see the positive effects of CSE being taught in schools.

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APPENDICES

APPENDIX A. Key Concept 8.1- Pregnancy and Pregnancy Prevention

<p>Learning objectives (5-8 years)</p> <hr/> <p>Key idea: Pregnancy is a natural biological process and can be planned</p> <p>Learners will be able to:</p> <ul style="list-style-type: none">▶ recall that pregnancy begins when egg and sperm unite and implant in the uterus (knowledge);▶ explain that pregnancy and reproduction are natural biological process, and that people can plan when to get pregnant (knowledge);▶ explain that all children should be wanted, cared for and loved (attitude);▶ recognise that not all couples have children (knowledge).	<p>Learning objectives (9-12 years)</p> <hr/> <p>Key idea: It is important to understand the key features of pregnancy</p> <p>Learners will be able to:</p> <ul style="list-style-type: none">▶ list the common signs of pregnancy (knowledge);▶ describe the tests available to confirm a pregnancy (knowledge);▶ list health risks associated with early marriage (voluntary and forced) and early pregnancy and birth (knowledge);▶ recognize that unintended pregnancy at an early age can have negative health and social consequences (attitudinal);▶ identify a parent/guardian or trusted adult to talk to if experiencing signs of pregnancy (skill). <hr/> <p>Key idea: Modern contraception can help people prevent or plan pregnancy</p> <p>Learners will be able to:</p> <ul style="list-style-type: none">▶ correct myths about modern contraceptives, condoms and other ways to prevent unintended pregnancy (knowledge);▶ explain that not having sexual intercourse is the most effective form of avoiding unintended pregnancy (knowledge);▶ describe the steps to using both male and female condoms correctly for reducing the risk of unintended pregnancy (knowledge). <hr/> <p>Key idea: Gender roles and peer norms may influence decisions about contraceptive use</p> <p>Learners will be able to:</p> <ul style="list-style-type: none">▶ discuss ways that gender roles and peer norms may influence contraceptive use (knowledge);▶ acknowledge that deciding to use a condom or other contraceptives is the responsibility of both sex partners (attitudinal);▶ acknowledge that preventing pregnancy is the responsibility of both men and women (attitudinal);▶ reflect on how they feel about contraception and the gender roles and peer norms that affect these feelings (skill).
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Learning objectives (9-12 years)

Key idea: It is important to understand the key features of pregnancy

Learners will be able to:

- ▶ list the common signs of pregnancy (knowledge);
- ▶ describe the tests available to confirm a pregnancy (knowledge);
- ▶ list health risks associated with early marriage (voluntary and forced) and early pregnancy and birth (knowledge);
- ▶ recognize that unintended pregnancy at an early age can have negative health and social consequences (attitudinal);
- ▶ identify a parent/guardian or trusted adult to talk to if experiencing signs of pregnancy (skill).

Key idea: Modern contraception can help people prevent or plan pregnancy

Learners will be able to:

- ▶ correct myths about modern contraceptives, condoms and other ways to prevent unintended pregnancy (knowledge);
- ▶ explain that not having sexual intercourse is the most effective form of avoiding unintended pregnancy (knowledge);
- ▶ describe the steps to using both male and female condoms correctly for reducing the risk of unintended pregnancy (knowledge).

Key idea: Gender roles and peer norms may influence decisions about contraceptive use

Learners will be able to:

- ▶ discuss ways that gender roles and peer norms may influence contraceptive use (knowledge);
- ▶ acknowledge that deciding to use a condom or other contraceptives is the responsibility of both sex partners (attitudinal);
- ▶ acknowledge that preventing pregnancy is the responsibility of both men and women (attitudinal);
- ▶ reflect on how they feel about contraception and the gender roles and peer norms that affect these feelings (skill).

Learning objectives (12-15 years)

Key idea: Different forms of contraception have different effectiveness rates, efficacy, benefits and side effects

Learners will be able to:

- ▶ analyze effective methods of preventing unintended pregnancy and their associated efficacy (e.g. male and female condoms, contraceptive pills, injectables, implants, emergency contraception) (knowledge);
- ▶ explain the concept of personal vulnerability to unintended pregnancy (knowledge);
- ▶ state that abstaining from sexual intercourse is an effective method to prevent unintended pregnancy if practised correctly and consistently (knowledge);
- ▶ state that correct and consistent use of condoms and modern contraception can prevent unintended pregnancy among the sexually active (knowledge);
- ▶ demonstrate how to use a condom correctly (skill);
- ▶ explain that emergency contraception (where legal and available) can prevent unintended pregnancy, including pregnancy through lack of contraception, contraceptive misuse or failure, or sexual assault (knowledge);
- ▶ state that natural contraceptive methods are not as reliable as modern methods but, in the absence of modern methods, natural methods are better than nothing and may be considered with advice from a health professional (knowledge);
- ▶ state that sterilization is a permanent method of contraception (knowledge).

Key idea: Young people who are sexually active and could benefit from contraception should be able to access it without significant barriers, regardless of ability, marital status, gender, gender identity or sexual orientation

Learners will be able to:

- ▶ analyze where condoms and contraceptives can typically be accessed locally - although barriers may prevent or limit young people's ability to obtain them (knowledge);
- ▶ recognize that no sexually active young person should be refused access to contraceptives or condoms on the basis of their marital status, their sex or their gender (attitudinal);
- ▶ demonstrate ways to access sources of contraception (skill).

Learning objectives (12-15 years contd.)

Key idea: There are health risks associated with too early child-bearing and closely spaced births

Learners will be able to:

- ▶ define too early child-bearing and explain the associated health risks (knowledge);
- ▶ describe the benefits of child-spacing (knowledge);
- ▶ recognize the importance of delaying and spacing pregnancies (attitudinal);
- ▶ express preferences about if and when to become pregnant (skill).

Learning objectives (15-18+ years contd.)

Key idea: Adoption is an option when someone is not ready or able to become a parent

Learners will be able to:

- ▶ evaluate the risks and benefits of adoption (knowledge);
- ▶ acknowledge that adoption is an important option for people who are not ready or able to become parents (attitudinal).

Key idea: There are practices that can contribute to or threaten a healthy pregnancy

Learners will be able to:

- ▶ assess prenatal practices that either contribute to a healthy pregnancy or threaten a healthy pregnancy (knowledge);
- ▶ acknowledge that ensuring a healthy pregnancy is not just the responsibility of the mother (attitudinal);
- ▶ develop a plan for supporting a healthy pregnancy (skill);
- ▶ demonstrate how to access prenatal services (skill).

APPENDIX B. Arkansas Human Growth & Development Unit Outline

DOMAIN:

Human Growth and Development

STANDARD:

Students will demonstrate the ability to apply their understanding of human growth and development, including awareness of their own and others', related to body systems.

COMPETENCY
QUESTION:



How can I demonstrate a transfer of knowledge about the body systems to understand, interpret, or analyze individual body parts as part of a larger system?

STUDENT LEARNING
OBJECTIVES:

K-2

Level A

I can name different parts of the body and describe physical characteristics that make us unique.

Level B

I can distinguish different body parts, including main organs of the body, and tell what those parts do.

3-5

Level C

I can classify the major functions of the body systems, identify which body parts are in each system, and how to keep my body systems healthy.

Level D

I can distinguish how the body systems mature and how heredity impacts growth and development.

6-8

Level E

I can demonstrate an understanding of how different body systems interact and depend on each other.

I can analyze more advanced body systems and the function that they play in overall health.

Level F

I can analyze and discuss physical and emotional changes that occur during puberty and the physical changes that occur within body systems as I mature.

9-12

Level G

I can analyze growth patterns and developmental changes and examine the factors that interfere with healthy development.

Level H

I can examine factors that are important to human reproduction, including prenatal care, pregnancy, and childbirth, and identify available health resources.

APPENDIX C. Federal Eight-Point Definition of Abstinence-Only Education

Section 510 (b) of Title V of the Social Security Act, P.L. 104–193	
For the purposes of this section, the term “abstinence education” means an educational or motivational program which:	
A	has as its exclusive purpose teaching the social, psychological, and health gains to be realized by abstaining from sexual activity;
B	teaches abstinence from sexual activity outside marriage as the expected standard for all school-age children;
C	teaches that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases, and other associated health problems;
D	teaches that a mutually faithful monogamous relationship in the context of marriage is the expected standard of sexual activity;
E	teaches that sexual activity outside of the context of marriage is likely to have harmful psychological and physical effects;
F	teaches that bearing children out-of-wedlock is likely to have harmful consequences for the child, the child's parents, and society;
G	teaches young people how to reject sexual advances and how alcohol and drug use increase vulnerability to sexual advances, and
H	teaches the importance of attaining self-sufficiency before engaging in sexual activity.