



## HEALTH SYSTEMS RESEARCH UNIT

# SCHOOL-BASED HEALTH CLINICS FOR ADOLESCENT SEXUAL, REPRODUCTIVE AND MENTAL HEALTH

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## INTRODUCTION

Access to health care, especially for adolescents, is a high priority policy objective in many countries and particularly for sexual and reproductive health and mental health care [1]. In 2009 young people aged 15-19 years accounted for 41% of all new HIV infections globally and more than half of other sexually transmitted infections (STIs) [2]. It has also been estimated worldwide that 11% of those who give birth each year are adolescents [3]. The 2nd South African Youth Risk Behaviour survey of learners at school found that 24.4% of young women report that they have been pregnant [4], whilst data from the 2010 National Antenatal Sentinel HIV and Syphilis prevalence survey [5] has shown that 14% of those aged 15-19 years and 9.4% of those aged 10-14 years who were pregnant were HIV positive [6]. Mental health problems are estimated to affect 10-25% of adolescents globally, yet their mental health care is often neglected [7, 8]. In South Africa, 21.4% of young people at school have made one or more suicide attempts in the previous 6 months [4]. Clearly sexual and reproductive health services and mental health care services need to be easily accessible to adolescents, and the barriers to access [9] need to be overcome.

At the turn of the 20th century social activists led the movement to serve the needs of young people living in disadvantaged communities by providing health and social services through schools, though service was often through voluntary efforts and rarely formally incorporated [10]. In recent years, formal health services have been developed in the school setting in a number of countries such that a 'one stop shop' provides an integrated preventative health service to young people [11, 12]. Known variously as 'school-based health care', 'school-based health centres' or 'school-based health clinics' (SBHCs) they are considered to be one of the most effective strategies for delivering comprehensive health services to young people, especially those that are normally 'hard to reach' [13-15]. They

can provide essential primary care services, overcome barriers such as transport issues, limited community services, and inconvenient location or appointment systems and can also act on the multiple determinants of health, including public health interventions and environmental change strategies [16].

It has been suggested that SBHCs improve attendance at school [17] although the evidence is limited. It has also been suggested that they can support the educational environment as a whole particularly in the way in which they can intervene in risk behaviours such as alcohol use, high risk sexual behaviours, tobacco drugs and mental health problems [18]. However educational outcomes are also related to quality of instruction availability of resources, social and environmental factors such that SBHCs only form one part of the influence on academic performance.

Together the national departments of Health, Basic Education and Social Development in South Africa are embarking on a strategy to develop a School Health programme comprising screening, immunisation, sexual and reproductive health and substance abuse services [19].

The Minister of Health, Dr A Motsoaledi, said in his Health Budget Vote Policy speech [20]

"This stream of PHC will deal with basic health issues like eye care problems, dental problems, hearing problems, as well as immunisation programmes in our schools. It will move further on to deal with more complex problems like contraceptive health rights that will include issues such as teenage pregnancy and abortions, and contraception, as well as HIV and AIDS programs among learners. Added to this will be drugs and alcohol in school."

This policy brief is based on the findings of a systematic review of the role and effectiveness of school-based health services in adolescent sexual, reproductive and mental health. We assess the relevance of the evidence in the context of South Africa.

## METHODS

Pubmed, Psychinfo, Psynet and Web of Science were searched for peer-reviewed English papers published between January 1990 and March 2012. We included any process and/or outcome evaluations of school-based health care/centres/clinics for adolescents in secondary schools/high schools using quantitative or qualitative methods. We included studies reporting sexual, reproductive and mental health outcomes or cost-benefit analyses for these outcomes.

## RESULTS

A total of 1315 titles were screened of which 246 articles were potentially eligible for inclusion. All abstracts of identified papers were screened by 2 of the reviewers. In total 28 studies were included in the final review. All of the studies except 1 were conducted in North America (27 in USA, 1 in Canada and 1 in the UK). Only 3 studies were impact evaluations reporting quantitative outcomes, and none of these were randomized controlled trials. These evaluations included sexual and reproductive health behaviour outcomes such as use of contraceptives, pregnancy prevention and screening for sexually transmitted infections [21-23]. The remainder of the studies retrieved were evaluations of accessibility of services and clinic utilisation.

## CAN SBHCs IMPROVE ADOLESCENT HEALTH?

Despite the proliferation of school-based health centres in the North America there is surprisingly little evidence of their effectiveness in terms of reproductive or mental health outcomes. There are no known randomised controlled trials and the results of studies that have used a comparison group have been mixed. However some studies showed that students received more focussed preventative health care. For example, Ethier and colleagues [21], found that females at schools which provided school-based health centres had an increased odds of reporting having received pregnancy or disease prevention care, having used hormonal contraceptives and were more likely to have been screened for sexually transmitted diseases (STDs). Also, female students at schools with SBHCs were more likely to have used emergency contraception at last

sex. However access to a SBHC did not influence receipt of reproductive health care for males.

Kirby [22] reported mixed findings in that the provision of contraceptives 'on-site' in only one in 3 of the schools sampled, significantly increased the likelihood of reported contraceptive use at last sex. However combining the SBHC with an in-school education programme focussing on HIV in a community with high prevalence encouraged a sharp rise in condom use. Similarly at another school where pregnancy was a particular problem the use of condoms and contraceptive pills was significantly higher than in a comparison school. The authors report that prioritising pregnancy and HIV prevention is important as is developing 'in-school' sexual and reproductive health preventative programmes early in their school career and that emphasising condom use and male responsibility may be useful. It appears that focusing on issues which are important in specific school communities may have merit rather than a blanket approach to provision.

Kisker and colleagues' study [23] found that there was no difference in rates of pregnancy or contraceptive use between those students with and without access to SBHCs and no difference in those who reported ever considering or those who had attempted suicide. We found no studies measuring the effects of school-based health centres on the timing of sexual debut, the incidence of pregnancy or sexually transmitted infections or the incidence of anxiety, depression, suicidality or other related mental health outcomes.

## CAN SBHCs IMPROVE ACCESS TO AND UTILISATION OF SERVICES?

Much of the evidence about SBHCs has come from descriptive studies which have examined access to and use of services and most of the papers retrieved were also related to access and clinic utilisation. It appears that overwhelmingly females tend to use services more than males [14, 15, 24-33] and that students who experienced the greatest level of mental health needs such as those who had considered suicide, had sleep disturbance and depression were more likely to use SBHCs [15]. Also some studies found that the more frequent users of SBHCs reported higher levels of mental health needs than their peers [15, 24, 25, 27] although this was not always supported by the evidence [31]. Users of SBHCs were also often described as exhibiting more high risk behaviours including unprotected sexual intercourse and substance usage than non-users of services [13, 15, 29, 33-36]. Adolescents exposed to SBHCs

received more mental health services and that there was a cost efficiency saving comparing them to those not exposed [37, 38]. It appears from this data that the evidence suggests that SBHCs reach adolescents with the greatest need. Although, Britto and colleagues reported that there was no significant difference in health visits for mental health services in those with and without access to SBHCs and in fact many students with access still did not seek the care that they needed [39].

## WHAT SERVICES ARE OFFERED?

The studies included in the review described a range of services offered. Thus, some SBHCs were full clinics with nursing, medical and auxiliary staff and they provided a complete range of services including emergency care, full sexual and reproductive health, mental and chronic health services, whilst others provided nursing services for a few hours a week only. Other services described including employment counselling and other learning support services to students.

## HOW COST EFFECTIVE ARE THEY?

SBHCs have been reported to lead to reduced hospitalisation, and lower transport and pharmacy costs [37]. They can also reduce access barriers and emergency room visits [40]. Guo and colleagues [38] found that SBHCs were cost beneficial in terms of medical system costs and also that they can be cost beneficial to society at large by reducing health disparity gaps. However, costs can be relatively high and ongoing funding needs to be prioritised.

## WHAT ARE THE CHALLENGES?

It is important to explore any sources of resistance in the community. Often SBHCs have been seen to be 'contraceptive clinics' that will encourage young people to become prematurely sexually active although this is not supported by the evidence [22]. Planners must be ready to listen to such concerns whilst at the same time ensuring that clinics offer the widest range of preventative health services as possible. Schools and health care staff may also be resistant either because boundaries and responsibilities between professionals such as teachers and health workers may become blurred or may feel that their workload will increase when they already feel overstretched. It is recommended that a representative advisory board is set up in the planning stages for each school so that the SBHC reflect the needs of the community in which they are based and not on a 'one-size-fits-all' approach.

## WHAT CAN HELP?

Including parents, guardians and local communities in the initial planning stages of school based health services is crucial [41] as are well-trained staff who are able to communicate with adolescents. Adequate referral pathways, follow-on care and collaboration between health service staff and schools can improve service delivery and effectiveness [10].

## HOW DOES THIS RELATE TO THE SOUTH AFRICAN CONTEXT?

Clearly evidence is needed from developing country settings. North American findings whilst useful may not be relevant to the South African context where we are faced with different health, economic and political challenges and a more recent history of institutionalised inequality. South Africa faces a problem of colliding epidemics of chronic illness, mental health disorders, injury and violence and maternal neonatal and childhood mortality [42] and a public primary health care service that has been underdeveloped [43]. It is therefore imperative that primary prevention via a school-based health service provision is prioritised and that the government is fully supported in its efforts.

## RECOMMENDATION

The evidence for the effectiveness of school-based health clinics for reproductive and mental health outcomes is limited, however the current evidence available indicates that they do reach adolescents at risk, appear to be cost effective in reducing health care costs due to hospitalisation and that they have the possibility of reducing health disparities. As there is currently no evidence from Sub-Saharan Africa or other developing country settings it is important that as South Africa implements the new school health programme, that it is monitored and evaluated closely. A 'stepped wedge' cluster randomised trial design [44] would allow for an evaluation of the effectiveness of the school-based health services as they are implemented and participatory action research such as the 'triple task method' [45] could assess the acceptability and accessibility of services to learners, their families, teachers, health workers, schools and communities. This is an exciting and opportune time for South Africa to contribute to the evidence base around school-based health services.

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