

School health in South Africa: reflections on the past and prospects for the future

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School health has received unprecedented attention in South Africa over the past five years, evolving from relative obscurity into a national priority programme. This elevated status of school health was marked by the launch of a new Integrated School Health Policy (ISHP) in October 2012, which replaced the first National School Health Policy and Implementation Guidelines of 2003.

However, school health is a complex programme. It addresses multiple health needs of school-aged children across an age-span of 12 years and encompasses many different kinds of health interventions. Its successful implementation is dependent on the integral collaboration of multiple sectors, and manifold levels and components of the health system – a feat that requires skillful management and leadership.

This chapter examines the past performance and future prospects of the South African school health service, and considers its design and intentions against international models of school health services. The chapter considers the many requirements for effective implementation of the ISHP and posits that, without significant strengthening of the management and leadership infrastructure, the resource base and the staffing, school health implementation will not progress satisfactorily, despite the favourable political and policy reform environment.

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Introduction

School health has received unprecedented attention in South Africa over the past five years and has consequently evolved from relative obscurity into a priority programme on the agendas of both the Department of Health (DoH) and of Basic Education (DBE). In the Department of Health, school health is one of three priority streams in the re-engineering of Primary Health Care (PHC). In the Department of Basic Education, progress with school health now forms a regular part of the DBE annual report.

This elevated status of school health was marked by the launch of a new Integrated School Health Policy (ISHP) in October 2012,¹ which replaced the first National School Health Policy and Implementation Guidelines of 2003. The ISHP was jointly endorsed by the Ministers of Health and Basic Education, and officially launched by President Zuma, reflecting the high level of political priority that this policy enjoys. At the launch, all the major education bodies, including teacher unions, national governing bodies and principal associations, expressed strong support for the policy.

The renewed focus on school health is not unique to South Africa. A recent global review of school health services commissioned by the World Bank indicates that, across countries of all income levels, the dual role of school health in contributing to both the health and education status of children has been recognised.² Consequently, significant efforts are being made to develop and strengthen school health services globally.

However, school health services are complex, as they are offered across a wide spectrum of age groups, encompass many different kinds of interventions, and require integral inter-sectoral collaboration. The exact definition, scope and contribution of school health still require clarification. In the World Bank review, the contribution of school health is defined as: helping children to enter school at the right age by addressing health barriers to school entry; helping children to stay in school until completion; reducing absenteeism due to health reasons, and contributing to educational performance by minimising health barriers to learning.²

The World Bank review further indicates that, while school health had previously been primarily a Department of Health initiative, the Departments of Education in many countries now recognise the link between health and educational performance, and regard the health of the children they teach as an essential part of their responsibility. School health therefore contributes to the 2015 agenda for the Millennium Development Goal (MDG) of ensuring better health and education for children, as well as the World Education Forum agenda of Education for All (EFA) by 2015. School health also has a significant gender element, as it is well recognised that addressing specific health issues that affect girls can contribute to their enrolment and retention in school.

In South Africa, school health concerns the health and well-being of approximately 12 million school going children.³ For these 12 million children, the South African Constitution, in Sections 28 and 29 of the Bill of Rights, entitles them with the right to: basic health care services; basic and further education; basic nutrition; and social services.⁴ Defining how school health can contribute to attainment of these health and education rights of school-aged children, and the collaborations required to give full effect to these inter-related and

indivisible Constitutional obligations, are important. This chapter aims to contribute to this discussion.

Fifteen years ago, the South African school health service typically encompassed a set of health service interventions led by the Department of Health that included health screening assessments, health promotion, preventative interventions such as vaccinations, and environmental health assessments of schools. Since then, two integrally linked initiatives have been added to the role and potential scope of school health:

- the Health Promoting Schools (HPS) concept introduced in South Africa in the late 1990s, that advocates for schools in all their facets to become sites of health promotion for learners, educators and the broader school community;⁵ and
- the DBE initiative of Care and Support for Teaching and Learning (CSTL) adopted in 2008, which goes further by providing a framework for addressing all the dimensions – including the health – of schoolchildren’s lives that enable them to enrol at, stay in, and complete school successfully.

This chapter expands on these definitions and applications of school health, and provides an overview of school health services and the ISHP in particular: its evolution and current implementation progress. The framework of the chapter covers:

- an orientation to school health by:
 - providing a profile of South African school-aged children in order to better understand the needs of the beneficiaries who require a school health service;
 - describing the South African school health service and relating it to international models of school health;
- a short history of how school health evolved from relative obscurity to its current priority programme status;
- an analysis of the growing inter-relationship between the Departments of Health and Education;
- analysis and key achievements of progress with the ISHP implementation; and
- future considerations for implementation of the ISHP.

The reflections in this chapter are drawn from: recent evaluations of the 2003 school health policy implementation; international analyses on school health, in particular the World Bank review in 2011 that examined school health in more than 50 low- and middle-income countries; and the experience of the authors with the development of school health policy and its implementation over the past two decades, including recent efforts in rethinking some of the ISHP requirements.

Demographic and health profile of South African school-aged children

School-aged children, ranging between ages 6 and 18, fall in the “middle” of the lifecycle continuum, between the early childhood period and young adulthood.⁶ In South Africa, school enrolment and attendance is high in the primary school years.⁷ Well-executed school health service interventions can therefore achieve a high

impact for these children, who spend approximately 200 days and a 1 000 hours in school each year.

Dropout rates increase among secondary school learners, especially after the age of 15, to the extent that 20% of 18-year-olds are out of school.⁷ While socio-economic and education-specific reasons account for the majority of children who drop out of school, an estimated 7% and 6% of children leave school for reasons of health and disability respectively, and 13% because of pregnancy.⁸ This emphasises the potential contribution of school health services to keeping children in school. Of note is that approximately 300 000 children of school-going age are not enrolled in school and would not derive benefit from a school health service.⁹

The socio-economic circumstances of the majority of schoolchildren are not optimal. According to the recent Child Gauge, half of all children live in three of the country's poorer, more rural provinces of the Eastern Cape, KwaZulu-Natal and Limpopo.⁹ Almost 60% of schoolchildren live in income poverty. Almost one in five children in the Eastern Cape, and one in three in the Northern Cape, reportedly live in a household where child hunger has been reported. Unsurprisingly, almost 16% of children who enter school are stunted, some severely so, such that their ability to perform academically is already significantly compromised. In the General Household Survey of 2011, which focused on schooling, a reported 10.7 million learners received meals at school, with 9 million of these indicating that they received food every day – emphasising the role of schools as sites of care and support to children.⁷ While the majority of children are able to access schools within half an hour of travel, at least a million children have to travel more than half an hour across dangerous and difficult terrains that expose them to potential drowning, pedestrian accidents, or violence and sexual assaults.

Age, gender and cause-specific data on the physical health status of school-aged children in South Africa are not readily available. Routine data on school health, until recently, have not been collected consistently.¹⁰ In the 2011 General Household Survey: Focus on schooling, 38% of learners reported health-related absenteeism, but the nature of these illnesses is not known.⁷ Nonetheless, the available data provide some insights into the health conditions of schoolchildren that require a health service response.

Oral health problems and skin infections are the most commonly reported health problems in school-aged children in South Africa.¹⁰ Oral health problems manifest as dental caries and the associated dental pain and sepsis, with poor oral hygiene and bad diet as the underlying causes. Approximately 60% of six-year-olds have dental caries and almost 70% of children with caries miss school as a result of dental pain or sepsis, and/or live with daily dental pain.¹¹ The prevalence of dental caries is as high as 87% in some provinces.¹² Beyond oral health and skin problems, school nurses report social problems and lack of healthy and sufficient food (highlighting the need for addressing the social determinants of health), with the next most common problems being refractive error and wax in the ear.

On average, 2.5% of children experience refractive errors and require corrective glasses.¹³ The prevalence of refractive error is relatively low at school entry, set at 1.9% among 5-year-olds, and peaks to approximately 9% in 15-year-olds.¹³ Screening for refractive error is therefore more appropriate and cost-effective in older age groups.

Hearing loss (defined in South Africa as a loss of hearing greater than 25 decibels) ranges from 2% for permanent hearing loss that requires assistive hearing devices, to 14%¹⁴⁻¹⁶ where hearing loss is transitory and due to treatable middle-ear infections or wax impaction.

Little is known about the extent and nature of chronic health conditions in school-aged children, or the extent to which these as well as acute health problems affect their ability to attend and perform in school. An estimated minimum of 15% of children have a chronic health condition.¹⁷ Asthma reportedly affects more than one in every 10 children. Current estimates indicate that approximately 2.4% of children between the ages of 2 and 14 are living with HIV and up to 7.1% of young people between 15 and 24 years of age, a proportion who would still be in school, live with HIV.¹⁸ Having a chronic health condition means that children may have to take regular medication while in school and may miss a few days of school each year due to flare-up of their illness, or having to attend a health facility. The proportion of children with disabilities is not accurately known, but surveys estimate moderate to severe disability in the school-aged groups at 3.2% for the 6- to 10-year-olds, and up to 4.1% for the 16- to 20-year-olds.^{19,20} Childhood conditions, such as overweight and obesity, that predispose children to future chronic illnesses in adulthood are a growing global concern. The prevalence of overweight and obesity is significantly higher in girls than in boys: 16.5% and 7.1% compared with 11.5% and 4.7%, for girls and boys respectively.²¹

Mortality in school-aged children is relatively low as compared to mortality in children in the birth to 5-year age group. The main cause of mortality in the 6- to 18-year-old age group is injury, both accidental and non-accidental. In teenage boys, homicide is an important cause of death, with increasing rates of teenage suicide reported in recent years.²²

Concerning youth "risk-behaviour", various kinds of substance abuse and gang membership among teenage boys are the common concerns.^{7,23} Among teenage girls, concerns centre on the prevalence, complications and sequelae of teenage pregnancy. This Youth Risk Behaviour Survey showed a 1% reported pregnancy rate among schoolgirls, with just over 51 000 having given birth to a live infant in the 12 months preceding the study. Excluding those who terminated their pregnancies, a significant number of girls – more than 4 000 – had lost their babies either during pregnancy or after birth.²³

It is clear from the issues described in the preceding section that prevention and health promotion is the mainstay of the health service response for the kinds of health problems that emerge in schoolchildren, notwithstanding the need to support children with unavoidable chronic health conditions. It is also clear that many of the health problems that affect schoolchildren have their genesis in social determinants of health and would not be solved through health-specific interventions alone.

The next section examines the South African school health service and its response to these health requirements of school-aged children, in the light of how school health has evolved internationally.

The South African school health service

History

School health services in South Africa have been in place for almost a century. As early as the 1920s, the value of school-based nutrition schemes and the potential impact on children's health and educational performance resulted in the provision of school feeding schemes to poor white children.²⁴ Unsurprisingly, it took a few decades before these interventions were extended to children of other "classified race groups". Throughout its history, the South African school health service took the form of a school-based outreach service led by the Department of Health. Beyond the initial focus on nutrition, school health services later provided vaccinations and health screening assessments for vision and hearing problems to schoolchildren.

The provision of school health services remained differential in quantity and quality along racial, socio-economic and geographical lines throughout the apartheid period. Schools located in urban "white" areas maintained a consistently good quality of school health services, while the other spectral extreme of rural, homeland-based black children received no, or infrequent, services of indifferent quality.²⁵⁻²⁸

The school health service operated as a vertical programme alongside other similar programmes. This meant that it was delivered by nurses who were allocated exclusively to school health and who were managed through vertical school health structures. School health services under the various health administrations of the time also operated differently.

In an attempt to ameliorate these inequities and structural inconsistencies of the school health service, the first National School Health Policy and Implementation Guidelines were developed and released for implementation in 2003.²⁹ The development of this policy took six years, and involved extensive consultation of approximately 400 participants across several sectors and institutions country-wide.³⁰⁻³³

The 2003 National School Health Policy and Implementation Guidelines aimed to:

- address the prevailing inequities in school health service provision;
- integrate the vertical school health service into primary health care services, in keeping with national policy to move towards comprehensive integrated service provision at district level;
- create a uniform school health service; and
- develop norms and standards for good quality school health service provision.

However, many factors laid waste these policy goals, as demonstrated in two evaluations of the 2003 school health policy performance, one national and one conducted in two provinces.^{10,34} In both of these evaluations, the picture that emerged was a deprioritised school health service with universally poor coverage, that was inadequately resourced, poorly understood and largely unsupported by managers across all levels of the health system.

Two sets of factors contributed to this poor policy performance:

- systemic factors such as the immaturity of the district health system, general nursing staff shortages and relative lack of referral services; and
- school health-specific factors such as poor relationships between key stakeholders, in particular the Departments of Health and Education; poor relationships between parallel health initiatives aimed at schools, namely that between health-promoting schools and school health; a lack of transport for this community-based outreach service; and poor managerial understanding of, and support for, the school health service.

These factors led the school health nurses to describe the school health service as the "stepchild of primary health care programmes".¹⁰

The only successful policy goal was the integration of school health into the managerial and service delivery structures at district level.

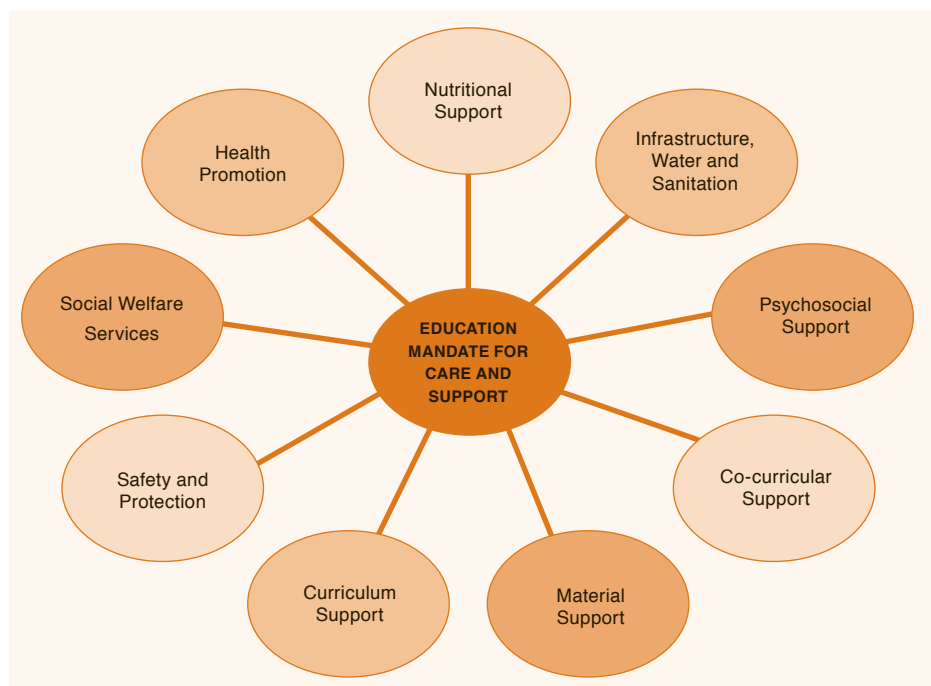
Recent developments

The failure of the 2003 policy implementation prompted a rethink of school health. In 2009, school health received renewed attention with the introduction of new health and basic education policy reforms. In the same year, the newly appointed Minister of Health prioritised the achievement of universal health care for all citizens through the introduction of National Health Insurance (NHI). He simultaneously announced the Re-engineering of Primary Health Care Strategy to bolster district-level health services in preparation for the NHI implementation.

Three priority streams were identified in the Re-engineering of Primary Health Care Strategy: school health, establishing ward-based outreach teams (WBOTs) and district clinical specialist teams (DCSTs). At the same time, several global and national imperatives refocused attention on maternal and child health. These included the Millennium Development Goals, and the expansion of HIV testing and treatment to all South Africans. School health was a potential vehicle for contributing to the achievement of these broader policy goals and in particular, sexual and reproductive health emerged on the school health agenda for the first time.

School health has also received strong attention within the DBE since 2009. The Minister of Basic Education focused on school health in her budget speeches and specifically called for the extension of Grade 1 school health assessments to all Quintile 1 and 2 schools. In keeping with international trends, the DBE extended its mandate through several policy initiatives beyond the academic terrain, in order to integrally support learners in all facets of their lives. Notably, the adoption of the CSTL framework provides for a multi-sectoral response, co-ordinated through the DBE, to address children's well-being through nine key areas of intervention (Figure 1).

Figure 1: The Care and Support for Teaching and Learning Framework



Source: Department of Basic Education, 2012.³

The Health Promotion priority area of the CSTL provides the point of intersection for the school health and health-promoting school programmes. Defining the respective roles and contributions of each of these three initiatives, and ensuring their effective and synergistic co-ordination, is essential.

The Departments of Health and Education aptly joined hands in initiating the development of a new school health policy, through which they could leverage the advantage of the favourable policy environment in which school health could flourish, and use the opportunity for “rethinking school health” in line with international initiatives. Hence a new Integrated School Health policy (ISHP) was developed. The ISHP enjoys the strong support of the Presidency, as evidenced by the explicit call in the President’s 2010 State of the Nation address for the reinstatement of school health programmes and the launch of the ISHP in October 2012.

Policy transition: 2003 National School Health Policy to 2012 Integrated School Health Policy

It is important to reflect on the policy transition from 2003 to 2012, as this supports an understanding of some of the policy decisions that are reflected in the ISHP. The analysis of this policy transition draws on the policy triangle framework that recommends the consideration of four dimensions when conducting policy analyses: the policy context, its content, the policy process and the policy actors.³⁵

Table 1 summarises the key similarities and differences between the two policies.

Table 1: Key differences in the 2003 and 2012 National School Health Policies

	2003 National Policy	2012 National Policy
Political support	Limited support and resource allocation to school health at a political level. Minimal media attention.	Strong. School health has featured consistently in the State of the Nation address since 2010. President launched the policy in October 2012. Strongly supported by Ministers of Health and Basic Education who co-signed the policy. Support from various national education, union and school governing bodies at the launch of the 2012 policy. Much media publicity, especially on sexual and reproductive health aspects.
Context	One of many child health policies developed in the post-apartheid period, and relatively low priority compared to other child health issues. Fledgling district health system with many challenges.	School health is one of the priority streams of health policy reforms. Strong efforts in the Department of Education to set in place frameworks and policies that contribute to the promotion of schoolchildren's health.
Relationships		
Between sectors	Tri-sectoral policy task team, with health the only active member.	Tri-sectoral policy task team, with Health and Education as active partners. Social Development Department is less involved.
Between health programmes	Inadequate co-ordination in particular between school health and health-promoting schools.	Co-ordination between health programmes not yet optimal.
Leadership capacity	National and provincial school health co-ordinator positions largely vacant for first five years of implementation.	Designated national, provincial and district school health persons in Health and Education largely in place.
Health service package		
Health assessment	Mainly for Grades 1 and R, roughly a million learners per year. Stated that disadvantaged schools must be prioritised, but not done in a structured way.	Expanded to one year in each educational phase, Grades R/1, 4, 8 and 10. Close to 4 million learners per year. Initial emphasis on schools classified socio-economically into Quintiles 1 and 2, representing the most disadvantaged learners. Anaemia and TB screening added.
Health promotion	Across all grades, but primarily in primary schools.	Across all grades. New focus on sexual and reproductive health, and risk behaviour in secondary schools. The provision of sexual and reproductive health services in schools requires the explicit permission of individual school governing bodies.
Prevention and Clinical care	Deworming. A Tetanus and Diphtheria (tD) vaccine introduced six years into the implementation period for 6- to 12-year-olds	Deworming and the tD vaccination. Contestation on the provision of contraception in schools. The HPV vaccine for 9-year-old girls commencing in 2014.
Psychosocial and Mental Health	Mental health assessments to be introduced only if provinces had the necessary capacity.	Psychosocial and mental health assessments now a requirement.
Chronic diseases	Mentioned, but no specific implementation direction given.	Identification and support of children with chronic diseases a required part of the service.
Interaction with school community, educators, parents and caregivers	Left to individual nurses and school health teams to negotiate this with schools, with mostly poor co-ordination between school health teams and schools. Multi-partner teams to be established at district level for co-ordinated planning of school-based interventions.	This is now more structured between Health and Education Community-based implementation teams in health and school-based teams required to work together. Multi-partner teams to be established at district level for co-ordinated planning of school-based interventions.
Key Resources		
Staff	Districts had to fund school health posts entirely out of existing budgets. Staff support and training left to districts.	National grants have been made available to support the recruitment of additional nurses for school health. Standardised training manual for nurses and educators developed and initial training supported from the national level.
Transport	Mostly shared with other outreach services and often unavailable for school health.	Mobile vehicles equipped for eye, dental and general primary-level care provided to 10 National Health Insurance pilot sites, specifically for school health services. Providing transport incumbent on other districts.
Monitoring and Evaluation	Done poorly, with inappropriately aggregated indicators.	Indicators still under construction.

Source: Shung-King, 2013.³⁶

The two policies were developed in very different health system contexts. The 2012 ISHP, in terms of both the high-level support and the positive advances in the district health system, probably has the most favourable implementation environment in the history of school health. The largest contextual “game-changers” are the integral involvement of the DBE in the ISHP implementation, the passionate advancement of the school health agenda by the Minister of Health, and the recognition of school health as a national priority programme in the Presidency. These conditions can potentially convert this “stepchild of primary health-care programmes” into a vibrant intervention. The involvement of the Department of Social Development (DSD), as an important third partner to the DoH and DBE, requires strengthening, as they have a crucial role to play in supporting children who experience psychosocial problems.

In terms of the policy content, the number and scope of the 2012 ISHP service package interventions increased exponentially in comparison to those covered in its 2003 predecessor: health screening assessments increased in number and were extended beyond Grade 1 to three additional grades; sexual and reproductive health interventions were added, and the new ISHP has a greater focus on psychosocial and mental health.

Amidst all the interventions, mass screening is still the most substantial activity. Of importance is that mass screening is subject to a set of international criteria, and a good mass screening programme should adhere to these standards.^{37,38} Two important criteria pertaining to the school health service are the prevalence of the health condition and the ability to respond to the conditions that are detected. Currently, referral services are not readily available, and the available routine information on school health does not reflect whether children have been adequately managed by referral services.¹⁰ The expansion of mass screening to three additional grades poses a huge challenge from both a service planning and an ethical viewpoint. This chapter cautions that the implementation requirements of the new ISHP are ambitious and, unless matched by concomitant resources and a functional referral system, might undermine the laudable intentions of the ISHP.

Whilst the newly added HPV vaccine, which is expected to be delivered through the ISHP, is welcomed, this programme could drain the already struggling school health service. Alternatives for delivery of this intervention without burdening or undermining the other ISHP services must be considered.

Importantly, the ISHP made its equity intentions very explicit by requiring that the initial implementation focus on schools classified into the two poorest quintiles, whilst not losing sight of the ultimate aim being universal coverage of the service.

Comparing the new ISHP to international trends in school health

In 2011, the World Bank review, which drew on years of experiences with school health service provision in a number of developed countries and examined more recent developments in school health services in over 50 low- and middle-income countries, highlighted many interesting findings on the structure and functioning of the service.²

Two main models of school health service provisioning emerged across different countries: a school-based model and a community-

based school-linked model. The most common is a school-based model that takes two main forms:

- a school health service based permanently at the school and primarily run by a nurse who is allocated to that school;
- an outreach service that visits schools on a periodic basis and is akin to the current South African model.

The second model is a service specifically aimed at schoolchildren, but based at a site within the community. This model is commonly adopted for the sexual and reproductive health component of school health services, for which adolescents may prefer a service that provides better privacy, or for which the service is not acceptable to parents as a school-based service.

A third model, which is relatively unique, is an educator-driven service operating in the state of Chandigarh in India, where educators are trained on basic healthcare interventions and are provided with a school kit, including a manual and first aid supplies. These trained educators assist learners with basic health problems and refer them to health facilities as required.³⁹

Across countries, school health services provide a range of interventions, from screening for conditions that may cause barriers to learning, to health promotion on various topics and disease prevention such as vaccinations and deworming, and from sexual and reproductive health services, including pregnancy testing and treatment of sexually transmitted infections, to the treatment of minor ailments by school health nurses. Japan, which has one of the best-equipped school health services, started off with only a deworming programme and now has a school-based service provided by a “hybrid” service provider trained in both nursing and education. This service is supported by a doctor and dentist on a regular basis. In the United Kingdom, the emphasis on screening is decreasing, with increasing emphasis on health promotion and education, in particular to secondary schoolchildren.⁴

The review indicated that school health services that are more focused, with fewer interventions, appear to have greater success. The review further revealed a general shift away from mass screening towards an increasing emphasis on health promotion and prevention. Available costing shows that specific interventions such as deworming programmes may be substantially cheaper when delivered through the educational platform, in contrast to provision through health teams, but sound economic evaluations of school health services are limited.

The lead government departments responsible for school health differ across countries, with health assuming the primary responsibility in some and education in others. On this matter, the review emphasised the need for close collaboration between health and education, regardless of which department led the service. It further stressed the integral role that educators could play in school health service interventions.

The review also highlighted many challenges with modes of delivery, resource constraints, and inter- and intra-sectoral relationships that are not dissimilar to those experienced in South Africa.

While the international studies yielded interesting lessons on models of service provision, the available literature has shortcomings. The main deficiencies are the largely descriptive nature of the research,

^a Personal Communication: Professor David Hall, retired paediatrician, author of *Child Health for All*, October 2013.

with few full-scale evaluations of how school health services influence child health outcomes. Even more problematic is the absence of demonstrable links between health-specific interventions in schools and educational outcomes, and this area requires further research. At times the evidence is also conflicting, specifically with regard to the issue of deworming; some studies suggest a clear benefit, whilst a more recent Cochrane review shows little or no benefit from indiscriminate mass deworming programmes.⁴⁰ The lessons should be interpreted in cognisance of these shortcomings.

When considering the ISHP against international trends, the following emerge:

- The strong focus and involvement of the DBE in the ISHP is well in keeping with international trends. In fact, the integral involvement of educators in aspects of the ISHP service provision could be explored more substantially in the ISHP implementation.
- The inter-sectoral approach between health and education is desirable, necessary and in keeping with international thinking.
- The range of interventions contained in the ISHP is in keeping with the range of interventions described in international models, but requires greater focus and prioritisation. International trends suggest that fewer and more focused interventions would fare better.
- The significant increase in screening activities appears contrary to international trends, wherein screening activities are minimised in favour of stronger health promotion and education foci.
- Sexual and reproductive health services in schools appear to be provided more readily in a number of countries, whereas in South Africa, the permission for these services may be withheld by school governing bodies. South African adolescents are more reliant on clinic-based sexual and reproductive health services.

The South African ISHP therefore contains both favourable and potentially constraining elements when compared to international school health practices.

Progress with the ISHP implementation

This section provides an overview of progress made with the ISHP implementation since the launch of the policy in October 2013 and examines both structural and performance parameters.^b

The implementation of the ISHP still focuses primarily on conducting Grade 1, and to a limited extent Grade 8, health assessments. School health teams administer Td vaccines and as of 2014, are also responsible for the provision of the HPV vaccine. Health promotion activities are fitted in where possible, and sexual and reproductive health services mainly take the form of some health promotion and education. The provision of a full suite of sexual and reproductive health services is determined by school governing body approval in

^b This update on the status of the ISHP implementation is based on: Department of Health data on coverage and staffing; recent engagements with the ISHP implementation by the authors; a baseline assessment of the ISHP implementation in 22 districts conducted by the 'Reducing Maternal and Child Mortality through Strengthening Primary Health Care' (RMCH) initiative (Baseline Assessment on School Health in 25 Districts in South Africa. Reducing Maternal and Child Mortality through Strengthening Primary Health Care (RMCH), October 2013).

individual schools, and not all schools have functioning structures in place to facilitate this. Most of the other required interventions are not yet active. Service coverage levels thus chiefly reflect the extent of provision of Grade 1 and Grade 8 health assessments.

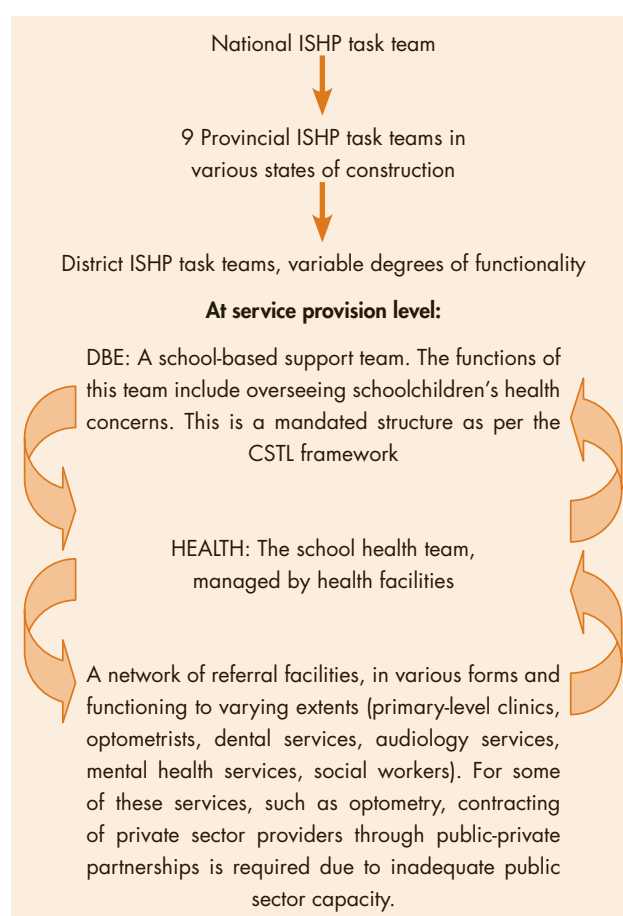
Management and co-ordination of the ISHP

Important strides have been made in setting structures in place at national, provincial, district, health facility and school level to support the management, co-ordination and implementation of the ISHP (see Figure 2). While not yet fully functional, of importance is the presence of health and education officials in these structures, which indicates a growing relationship between these two crucial sectors.

At a national level, an inter-sectoral ISHP task team is responsible for the overall planning and development of the ISHP, and for the provision of implementation support to provinces and districts. Each provincial health department has a dedicated co-ordinator for school health. There is an equivalent person in the DBE, but in a number of provinces this person has multiple responsibilities beyond health. Similarly, many but not yet all districts in both health and education have district ISHP co-ordinators in each department, although the DBE district co-ordinators are not exclusively allocated to school health.

At service-provision level, the school health team liaises with a school-based support team which co-ordinates all matters in schools, including health, that concern learners.

Figure 2: Organisational structures responsible for school health, South Africa



Since 2012, each province has produced an annual ISHP implementation plan and some provinces have five-year plans in place to guide ISHP activities.

Notwithstanding the progress demonstrated by these ISHP inter-sectoral structures, high-level political and decision-making mechanisms should also be in place to ensure the ongoing prioritisation and sustained resourcing of the ISHP.

Staffing and service coverage

Staff numbers and composition

Provinces allocate teams according to the required norm of one team to 2 000 learners who require a health assessment. Each team should have a professional nurse and an assistant.

Since the launch of the ISHP, all provinces have made progress in appointing school health teams, prioritising service provision to Quintile 1 and 2 schools in the initial implementation period. As indicated in Table 2, with the exception of Mpumalanga, provinces have sufficient numbers of teams to cover Grade 1 assessments in Quintile 1 and 2 schools.

With the exception of the Western Cape, Gauteng and KwaZulu-Natal, all provinces have a significant shortfall of teams to expand the screening assessments to Grade 8, and only the Western Cape has a sufficient number of teams for all four grades.

Even where there is a sufficient number of teams, the distribution and composition thereof is not uniform throughout provinces. In certain districts, a team may consist of a professional nurse assisted by several community health workers. In another, the "team" consists of only a professional nurse. In one district, for example, a team consisting of a professional nurse, aided by several community health workers, serves 10 schools. In another district, a single team serves in excess of 50 schools. This situation inevitably leads to inequitable coverage and quality of the services and in this respect is not dissimilar to the performance outcomes of the 2003 policy.

The current staffing norm does not fully take into account the many additional health activities required by the ISHP. The full set of requirements of the ISHP includes:

- managing and leading the school health team;
- co-ordinating the service across sectors;
- ensuring good linkages between the ISHP, clinics, referral services and schools; and
- implementing the ISHP interventions.

These activities are all crucial to the success of the ISHP but fulfilling them requires additional capacity. At present, professional nurses mostly conduct screening for health assessments, a task that does not require a high-level professional qualification and could be undertaken by well-trained alternative staff members such as community health workers. This would free the professional nurse to execute management and leadership activities, and the policy's more sophisticated service requirements. This task-shifting and redrafting of roles and responsibilities would have financial, training and recruitment implications and should receive due consideration.

Service coverage

Coverage of the service is reported on quarterly by districts. In 2013, provinces had to achieve targets of: 70% school coverage for Quintile 1 and 2 schools, 60% for Grade 1 learners in Quintile 1 and 2 schools, and 20% for Grade 8 learners in Quintile 1 and 2 schools.

Coverage levels for 2013 per province are reflected in Table 3. The coverage levels indicate that the ISHP implementation is not yet proceeding as envisaged. Nationally, fewer than half of all Quintile 1 and 2 schools have received the ISHP service. Only two provinces – Gauteng and the Free State – visited more than 50% of their Quintile 1 and 2 schools. The focus is still on primary schools, with limited coverage of secondary school learners.

Table 2: School health teams per province

Province	Number of learners in Quintile 1 and 2 schools					Number of school health teams	Required number of teams for Grade 1 learners	Required number of teams for Grades 1 and 8 learners	Required number of teams for learners in all four grades
	G1	G4	G8	G0	Total				
EC	113 083	89 502	75 763	69 520	347 868	60	57	94	174
FS	37 810	31 019	27 018	32 996	128 843	19	19	32	64
GP	52 052	37 857	34 003	40 462	164 374	58	26	43	82
KZN	134 902	102 725	104 243	111 806	350 951	148	67	120	175
LP	94 613	81 112	78 582	113 415	367 722	50	47	87	184
MP	78 673	61 834	67 491	70 979	278 977	16	39	73	139
NC	13 934	11 634	9 720	8 403	43 691	6	7	12	22
NW	38 578	33 495	25 728	29 259	127 060	21	19	32	64
WC	27 789	21 963	13 161	12 729	75 642	45	14	20	38
Total SA	591 434	471 141	435 709	489 569	1 885 128	423	295	513	942

Source: National Department of Health, Maternal, Child and Women's Health Directorate, March 2014.

However, this is only part of the school coverage picture. In every quarter and across all provinces, significant numbers of schools that are not classified as Quintile 1 or 2 are also visited. In the first quarter, the number of schools visited was 2 013, of which 24% were schools classified into higher quintiles. The limited availability of vehicles for use by school health teams reportedly results in teams visiting schools nearest to their clinics, thereby reducing visits to Quintile 1 and 2 schools further afield.^c While learners from poor socio-economic circumstances may be enrolled at schools in higher quintiles, the intended focus of the ISHP in the initial implementation period was to be on schools that are located in the most disadvantaged areas.

The Table 3 also illustrates significant differences between school coverage and learner coverage rates, and indicates that even though school health teams visit schools, not all eligible learners benefit from the ISHP interventions. This demonstrates the importance of using both school and learner coverage rates to assess progress in providing access to the ISHP interventions.

The discrepancy between the number of school health teams to conduct visits to Grade 1 learners in Quintile 1 and 2 schools as shown in Table 2, and the relatively low coverage of these learners as shown in Table 3, requires further investigation.

Table 3: Projected^d annualised ISHP coverage per province for 2013/14 financial year

Province	Projected school coverage of Quintile 1 and 2 schools Target 70%	Projected coverage of Quintile 1 and 2 Grade 1 learners Target 60%	Projected coverage of Quintile 1 and 2 Grade 8 learners Target 20%
EC	24	12	5
FS	65	45	40
GP	88	62	62
KZN	49	36	13
LP	49	48	12
MP	24	29	5
NC	36	27	11
NW	29	19	33
WC	44	29	0
Total SA	40	32	15

Source: National Department of Health, Maternal, Child and Women's Health Directorate, March 2014.

c Personal communication: National Department of Health official, 17 March 2014.

d Coverage levels are provided by quarter. Data obtained from the DoH contained coverage levels for quarters 1-3 for 2013, with the exception of Gauteng where data were available for quarters 1 and 2 only. Based on the quarterly coverage levels, a projected annualised coverage was calculated and is reflected in the Table. Coverage levels for each quarter are calculated from the number of schools and learners covered, as a proportion of the total number of schools and learners that the ISHP should cover.

Staff training

Excellent training and supervision of, and support for, the ISHP staff are essential. School health teams across all provinces have been trained using a school health resource manual.

Further training should include:

- specific skills on health screening to ensure that children are correctly identified and referred;
- competence in health promotion, especially working with adolescents on sexual and reproductive health issues;
- basic training for educators on how to handle learners with health problems; and
- leadership and management skills for school health team leaders.

Transport and referral services

As indicated in Table 1, the lack of regular transport significantly affects the ability of school health teams to reach schools. This outreach service requires a permanent vehicle for each team, particularly for reaching Quintile 1 and 2 schools, which are often located in far-flung and rural areas. In numerous locations, school health nurses use public transport at their own expense to get to and from schools.

With the launch of the 2012 ISHP, the Minister of Health allocated three mobile clinics to each of 10 NHI pilot districts, to assist with referral services: one for eye care, one for dental care and one for general primary health care. The intention was to take referral services closer to children. While the purchase of the mobile clinics reflects a deep commitment from government to improving access to health services, their functionality was fraught with logistical and administrative problems and the vehicles were grounded in the first year of implementation. The feasibility of the mobile clinics as a viable service option requires further consideration.

Transport of children to referral services, and the availability of referral services throughout all districts, require significant strengthening. The relative paucity of appropriate referral services in the public sector remains an obstacle to the full roll-out of the ISHP. In some provinces, optometry services are provided through contracts with the private sector and similar arrangements may be required for other referral components. Whilst general referral services may be strengthened through the re-engineering of PHC, specific consideration of school health referral requirements is essential.

Financing of the school health service

The school health service does not have specific nor sufficient budget allocations in national, provincial or district DoH budgets. School health competes against many other priorities, and although some staff and transport costs are covered, the shortfall remains significant. With the launch of the ISHP, some national allocations provided for the recruitment of retired nurses in the first year, but provinces are expected to plan for these posts in future budgets. The DBE provides equipment and First Aid kits.

Increasing the numbers and composition of teams will have further budgetary implications. Based on the experience with the 2003 policy, implementation of the ISHP is unlikely to progress satisfactorily without dedicated funding, akin to a conditional grant,

until provinces and districts can provide the full costs for school health services.

The Finance Ministry announced a specific allocation for the HPV vaccine for R400 million over two years in 2014, but this favours only one of the ISHP interventions, and does not address the numerous staffing and infrastructural requirements essential to making the entire programme work.

Monitoring of the ISHP implementation

Until recently, school health service data had been inconsistent and of poor quality, which disabled monitoring of progress and impact. School health coverage data are now collected through the District Health Information System and once this system is well established, it is expected to yield good quality data.

School health teams now report on referrals per health condition, and this will help to monitor the health profiles of school-aged children. However, the extent to which children who are referred receive the required interventions is one of the important outcome measures of the school health service, but is still not known.

Given these challenges in monitoring, many of the intended outcomes and impacts of the ISHP can only be assessed through periodic evaluations.

Conclusion

The 2012 Integrated School Health Policy is an advance on its predecessor in terms of the commitment and efforts made to facilitate implementation. Nonetheless, the complexity of this multi-sectoral policy, which spans an age-continuum of 12 years and has multiple interventions, cannot be underestimated.

In order to refine and improve the implementation in a sustained manner, this policy requires excellent and skilled leadership at various levels of the system. Leadership emphasis should be on the building of strong, formal, structured relationships between stakeholders at all levels in the Departments of Health, Basic Education and Social Development. The prospects of fostering greater integration of school health initiatives into the CSTL framework of the DBE, and in particular to involve educators in the delivery and monitoring of the ISHP, are particularly promising. This integration will have to be planned carefully, with the correct guidelines and support to educators, and with periodic reviews.

Leadership efforts must also focus on acquiring well-trained staff with the correct skills mix to deliver the service; ensuring that interventions are evidence-based and consistently evaluated; and procuring and managing the necessary resources to make the ISHP work. In line with international trends, the ultimate goal should be for a smaller, focused set of interventions, with an increasing focus on health promotion and prevention rather than on screening. Notably, the health and education reform initiatives provide a conducive context in which to test aspects of the ISHP through pilot initiatives, using the lessons gained to guide refinement of this complex policy.

The current climate of solid political support for this cause lends itself to improving the ISHP implementation across all of these levels.

Of importance is the strengthening of referral services, without which the school health screening activities have little utility. Where public sector referral services are inadequate, interim measures through public-private partnerships, with good oversight to avoid the pitfalls of over-servicing, may help to resolve referral service gaps.

Careful planning is required for improving the coverage and staffing of school health teams, and here the emphasis – for the next two years at least – should remain on the Quintile 1 and 2 schools, until the service delivery to these disadvantaged groups is consolidated. Reflections on the 2003 policy experience have taught us that dedicated finances for school health are required to enable full and good-quality provision of this service.

One of the key requirements is that a selection of key indicators must be collected and monitored routinely within existing school frameworks. It is important to keep these indicators to a minimum, and ensure that reliable and regular information on the coverage at school and learner level and on referral responses is produced.

Specific suggestions include:

- injecting significant human resources into the delivery of this service if it is to reach the desired coverage and quality;
- reconsidering the role of the professional nurse who spends too much time doing basic activities that do not require high levels of professional qualification (such as screening of children) that could be done by well-trained cadres of staff such as community health workers;
- focusing on interventions that have yielded sound evidence for their impact, thus prioritising the use of scarce resources;
- carefully considering additions to the ISHP service package given the existing capacity constraints; and
- inviting the integrative participation of educators in ISHP activities that are appropriate for educator involvement, such as the early identification of learners with potential health problems, and supporting health teams in the monitoring of progress with learners who require referral services.

School health services, by intention and design, form a quintessential primary health care programme. School health embraces all the elements of the Alma Ata primary health care philosophy of health promotion and prevention, of acknowledging the social determinants of health, and of its inter-sectoral architecture.⁴¹

For the first time in the history of South Africa's school-based health programmes, this service is now correctly prioritised in the broader terrain of primary health care and the education agendas of the country. However, for the 12 million children who stand to benefit from the ISHP implementation, the success of this complex health service is dependent on the continued strengthening of the district health system wherein it operates and of the inter-sectoral relationships that are at its heart, and on the availability of the required resources.

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References

- 1 National Department of Health and National Department of Basic Education. Integrated School Health Policy. Pretoria: Department of Health; 2012.
- 2 Bundy D. Rethinking School Health: A Key Component of Education for All. The International Bank for Reconstruction and Development, Washington DC: The World Bank; 2011.
- 3 Department of Basic Education. Education Statistics in South Africa 2012. [Internet] 2014 [cited 14 June 2014]. URL: www.education.gov.za//EMIS/StatisticalPublications
- 4 Republic of South Africa. The Constitution of the Republic of South Africa. Act 108 of 1996. Pretoria: Government Printer; 1996.
- 5 World Health Organization. The Ottawa Charter for Health Promotion. Ottawa: WHO Regional Office; 1986.
- 6 Westwood A, Shung-King M, Lake L. Basic Health Care Services for Children. In: Kibel, M, Lake L, Pendlebury S, Smith C, editors. South African Child Gauge 2009/2010. Cape Town: Children's Institute. 2010.
- 7 Department of Basic Education. General Household Survey (GHS): Focus on Schooling. Pretoria: Government Printer; 2012.
- 8 Crouch L. Disappearing Schoolchildren or Data Misunderstanding? Dropout Phenomena in South Africa. North Carolina, USA: RTI International; 2005.
- 9 South African Child Review: Children Count. Cape Town: Children's Institute; 2013.
- 10 Shung-King M. Why child health policies in post-Apartheid South Africa had not performed as intended. The case of the School Health Policy. DPhil. Oxford: Oxford University; 2012.
- 11 Van Wyk PJ, van Wyk C. Oral health in South Africa. *Int Dent J*. 2004 Dec;54(6):373-377.
- 12 Naidoo S, Chikte UM, Sheiham A. Prevalence and impact of dental pain in 8- to 10-year-olds in the Western Cape. *SADJ*. 2001; 56(11): 521-3.
- 13 Naidoo KS, Raghunandan A, Mashige KP, Govender P, Holden BA, Pokharel GP, et al. Refractive error and visual impairment in African children in South Africa. *Invest Ophthalmol Vis Sci*. 2003; 44(9):3764-9.
- 14 Bhoola D, Hugo SR. Prevalence: outer and middle ear disorders in black and Indian preschool children from Durban. *SAJCD*. 1995;42:19-27.
- 15 North-Matthiassen C, Singh SA. The hearing profile among learners in schools in the Western Cape, South Africa. *Int J Pediatr Otorhinolaryngol*, 2007 Jan; 71(1)113-8.
- 16 Hugo SR, Louw B, Meyer SE. Aard, voorkoms en implikasies van middeloorpatologie op hoërisikogroepe. *RGN-projek No.15/1/3/3/791*;1991.
- 17 Robertson A. Chronic Health Conditions in Children. In: Ijumba P, Padarath A, editors. South African Health Review. Health Systems Trust: Durban; 2006.
- 18 Shisana O, Rehle T, Simbayi LC, Zuma K, Jooste S, Zungu N, Labadarios D, Onoya D, et al. South African National HIV Prevalence, Incidence and Behaviour Survey, 2012. HSRC: Cape Town. 2014.
- 19 Community Agency for Social Enquiry. We also count! The extent of moderate and severe disability and the nature of the disability experience in South Africa. Pretoria: Department of Health; 1999.
- 20 Department of Social Development, Department of Women, Children and People with Disabilities, United Nations Children's Fund. Children with Disabilities in South Africa: A Situation Analysis: 2001-2011. Pretoria: DSD, DWCPD and UNICEF; 2012.
- 21 Shisana O, Labadarios D, Rehle T, SANHANES-1 Team et al. South African National Health and Nutrition Examination Survey (SANHANES-1). Cape Town: HSRC Press; 2013.
- 22 Bradshaw D, Nannan N. Mortality and Morbidity among Women and Children. In: Ijumba P, Padarath A, editors. South African Health Review. Health Systems Trust: Durban; 2006.
- 23 Reddy SP, James S, Sewpaul R, et al. Umthente Uhlaba Usamila – The South African Youth Risk Behaviour Survey 2008. Cape Town: South African Medical Research Council; 2010.
- 24 Duff SE. Not Charity, but Self-defence: Nutritionism, Soup Kitchens and Feeding the Poor White Child in the 1920s and 1930s. Paper presented at the Southern African Historical Society, Gaborone, 27-29 June 2013.
- 25 Pillay YG, Bond P. Health and Social Policies in the new South Africa. *Int J Health Serv*. 1995;25(4):727-43.
- 26 Price M. Health care as an instrument of Apartheid policy in South Africa. *Health Policy and Planning* 1. 1998; 38(2):158-170.
- 27 Coovadia H, Jewkes R, Barron P, Sanders D, McIntyre D. The Health and Health System of South Africa: Historical roots of current public health challenges. *Lancet*. 2009 Sep;374(9692):817-34
- 28 Abrahams E, Wigton A, de Jong R. Workshop on an Integrated Policy for School Health. Discussion Document. Cape Town: Child Health Policy Institute; 1997.
- 29 Department of Health. The National School Health Policy and Implementation Guidelines: Pretoria: Government Printer; 2003.
- 30 Abrahams E, Wigton A. Workshop on an Integrated Policy for School Health. Proceedings. Cape Town: Child Health Policy Institute; 1997.
- 31 Abrahams E, Shung-King, M. Report on the Nine Provincial School Health Policy Workshops. Cape Town: Child Health Policy Institute; 2001.
- 32 Abrahams E, Shung-King M. Report on the National School Health Policy Guidelines Workshop. Cape Town: Child Health Policy Institute; 2001.
- 33 Shung-King M. The Ebb and Flow of Child Health Policy Development in South Africa: Three case studies reflecting the role of the Children's Institute at the University of Cape Town in shaping child health policy in South Africa. Cape Town: Children's Institute; 2006.
- 34 Mohlabi DR, van Aswegen EJ, Mokoena JD. Barriers to the successful implementation of school health services in the Mpumalanga and Gauteng Provinces. *S Afr Fam Pract*. 2010; 52(3):249-254.
- 35 Walt G, Gilson L. Reforming the health sector in developing countries – the central role of policy analysis. *Health Policy Plan*. 1994; 9(4):353-370.
- 36 Shung-King M. From 'stepchild of primary healthcare' to priority programme: lessons for the implementation of the National Integrated School Health Policy in South Africa. *S Afr Med J*. 2013;103(12):895-898.

- 37 Andermann A, Blancquaert I, Beauchamp S, Dery V. Revisiting Wilson and Junger in the genomic age: a review of screening criteria over the past 40 years. *Bull World Health Organ.* 2008 April;86(4):317-319.
- 38 Wilson JMG, Junger G. Principles and practice of screening for disease. *WHO Chronicle* 22(11):473. *Public Health Papers #34.* Geneva: World Health Organization; 1968.
- 39 Bhatia V, Puri S, Mangat C, Kaur A. An intervention study to strengthen first aid care in schools of Chandigarh, India. *Internet Journal of Family Practice.* 2009;8(1).
- 40 Taylor-Robinson DC, Maayan N, Soares-Weiser K, Donegan S, Garner P. Deworming drugs for soil-transmitted intestinal worms in children: effects on nutritional indicators, haemoglobin and school performance. *Cochrane Database Syst Rev.* 2012;11(7):CD000371.
- 41 World Health Organization. Report of the International Conference on Primary Health Care, Alma-Ata, USSR. Geneva: World Health Organization; 1978.

