

School health promotion: organization of services and roles of health professionals in seven European countries

Jeanine Pommier¹, Didier Jourdan², Dominique Berger², Chantal Vandoorne³, Beata Piorecka⁴, Graça Simões De Carvalho⁵

Background: This comparative study is intended to provide a better understanding of how health promotion services are organized in school settings in Europe and to show how health professionals involved outside or within the school setting help to improve young people's health. **Methods:** This study was based on an analysis of school health policies and the organization of school health services, where these existed, as well as on interviews with health and education professionals. The countries concerned were Belgium (French-speaking community), Denmark, France, Spain (Catalonia), Switzerland (Jura), Poland and Portugal. **Results:** Although the provision of health services for children and adolescents varied considerably, the health services available were very similar in each of the countries. The emphasis put on particular aspects of these services varied depending on the political and institutional culture in each country. Three different types of school health service provision were identified: community-based, school-based or health needs-focused. **Conclusion:** All countries had health education and health promotion services but the provision of these services varied considerably from country to country. They were provided either by a specific category of professionals (health personnel or teachers) or considered to be the responsibility of the educational community as a whole.

Keywords: child and adolescent health, Europe, health professionals, health promotion, school health.

Introduction

Article 168 of the Treaty of Lisbon says that 'a high level of human health protection shall be ensured in the definition and implementation of all Union policies and activities'.¹ The White Paper 'Together for Health: A strategic approach for the EU 2008–2013' states that 'health is central in people's lives and needs to be supported by effective policies and actions'.² In this context, many European Union (EU) countries are striving to offer a high level of service while striking a balance between viability and cost.^{3–5} These strategies affect school health promotion (HP)^{6–13} since schools are recognized as settings that can make a significant contribution to pupils' health and well-being.¹⁴ Various approaches have been adopted to improve HP in school settings, centred, for example, on the curriculum and teaching, on the organization of school healthcare or on setting up services such as school welfare services, or external links with local health services and health professionals.¹⁵ The literature suggests that health services can be successfully involved in HP programmes if

they are associated with the school programme as a whole and if the work of the healthcare practitioners is complementary to that of other school professionals.¹⁶

This study is intended to provide a better understanding on how HP services are organized in school settings and to show how health professionals involved outside or within the school setting help to improve young people's health by comparing practices in seven EU countries. Providing national educational and healthcare system authorities with an analysis of the various types of strategy applied in other EU countries may help them to move forward. How do health professionals (doctors and nurses) work with schools or within school settings? What are their missions? What services are provided for pupils?

This study focused on seven countries: Belgium, Denmark, France, Poland, Portugal, Spain and Switzerland. Although a comparative study does not aim to reveal the 'best organization', the answers to these various questions may provide useful information for discussion and provide the countries in question—as well as others—with an overview of the various organizational strategies.

This study used the theoretical framework defined by R.S. Downie, C. Tanahill and A. Tanahill,¹⁷ which considers health promotion to be the convergence of prevention, health education and health protection.

Methods

This qualitative comparative study focused on public policies and was based on a multimethod design. It was based on a literature search of school health policies and organization of school health services (where these existed) and on interviews with health and education system professionals. An interview strategy was adopted in addition to the literature search in order to provide complementary data, using a concurrent nested design.¹⁸ In this design, one data set (resulting from the interviews) is used to provide a supportive, secondary

1 EHESP School of Public Health (Ecole des Hautes Etudes en Santé Publique), Av. du Professeur Léon Bernard, 35043 Rennes CEDEX, France and Laboratoire PAEDI, School Health Education research unit

2 Laboratoire PAEDI, School Health Education research unit and IUFM d'Auvergne (Auvergne Teacher Training College), Université Blaise Pascal, 36, avenue Jean Jaurès CS 20001, 63407 Chamalières Cedex, France

3 APES, Université de Liège, Sart Tilman B23, 4000 Liège, Belgium

4 Institute of Public Health, faculty of Health science, Jagellonian University Medical College 20, Grzegorzeczka St, 31531, Krakow, Poland

5 Child Studies Institute, Universidade do Minho, Campus de Gualtar, 4710-057 Braga, Portugal

Correspondence: Jeanine Pommier, EHESP, Ecole des Hautes Etudes en Santé Publique, Av. du Professeur Léon Bernard, 35043 Rennes Cedex, France, tel: +33 299022831, fax: +33 299022642, e-mail: jeanine.pommier@ehesp.fr

role in a study that is based primarily on another data set (resulting from the review of the literature).

Numerous studies have demonstrated the relevance of comparative studies on condition that they are organized according to scientific criteria rather than on a subjective basis. Care must also be taken to avoid 'false comparisons', such as juxtaposing treatises without attempting an in-depth synthesis.¹⁹ According to Vigour,¹⁹ a comparison should reveal similarities at the same time as making a distinction with respect to a given criterion. A comparison provides an objective point of view, a greater knowledge, a classification of certain phenomena and sometimes attempts to generalize. However, to achieve these aims, it is first necessary to break away from conventional thought patterns and distance oneself from preconceived ideas and ideas that are founded in one's own culture.¹⁹ The comparative analysis in this study is based on the method proposed by Vigour, with seven steps from data collection to data analysis: (i) identification of the pertinence of a comparison and definition of the objectives of the comparison, (ii) construction of the research object (concept definition and clarification of research questions), (iii) definition of the comparison units (definition of the type of comparison (temporal and spatial), number of case studies), (iv) choice of the best methodology and identification of data sources, (v) organization of data collection, (vi) data analysis with tables for summarizing and comparing the results and (vii) presentation of conclusions avoiding juxtaposing treatises.

Data collection and analysis

Information was gathered between January and June 2006. The study does not take into account any policy changes that may have occurred since.

The data collected was organized into three main themes: (i) general country description, (ii) healthcare and school system organization and role of health professionals (national, regional and/or local health policy) and (iii) the views of the people involved concerning the integration of health issues in school settings. The first two themes were studied in the review of the literature and data for the third theme was collected through interviews. The literature search was based on two approaches: (i) a country by country Internet search, (ii) contact with a local player able to identify key documents and to make them available if they could not be found on Internet. The main languages used for studying these documents were French, Spanish and English. A semi-structured questionnaire was drawn up especially for this study and validated by the authors so that it could be used in different organizational and cultural contexts. Five telephone interviews were carried out in each country. Interviewees were representatives of the education and/or healthcare system, school health representatives, youth health specialists or public health specialists. The interviews are not representative and were mainly intended to reveal discrepancies between policies and their application in the field. The interviews were recorded and transcribed by two public health students. The review of the literature concerned mainly policy documents and an analysis of these policies and other publications describing the themes concerned. Only the results concerning the organization and role of health professionals in school settings are presented in this article.

The countries were selected on the basis of two main criteria: the diversity of school health provision systems and the linguistic accessibility of the information. For some countries, the analysis was restricted to particular regions,

depending on the political structure. The countries studied were:

- Belgium (B), French-speaking region
- Denmark (Dk),
- France (F),
- Spain (E), Catalan region
- Switzerland (Ch), Jura region
- Poland (Pl) and
- Portugal (Pt).

Country abbreviations are used even though the study was based on a region within the country.

The data collected was presented in summary tables in order to compare the situation in different countries, showing the presence or absence of certain elements and revealing similarities and differences.²⁰

The main limitation of this study was that the same information was not available for all countries. The language barrier was a recurring problem. The regulations and professional articles were only in the original language (not always in English, French or Spanish). For example, in some countries, it was not possible to have direct access to certain legislative documents concerning the regulations for doctors working in schools. These problems were compensated for as much as possible by analysing the contextual elements in as great a depth as possible, taking into account the considerable differences in socio-economic situations and institutions. Another problem was that the professionals interviewed were not a representative sample and so the results must be interpreted with caution.

Results

Assignment of health professionals

The results showed that five countries had health personnel specifically assigned to schools: B, Ch, Dk, F, Pl. Of these five countries, with the exception of Dk, all had some doctors and/or nurses who worked exclusively in schools, although some of them sometimes had activities outside the school environment. The Danish local authorities paid the medical and nursing personnel for providing school health services: these personnel did not work exclusively in schools: they also worked in care centres and provided homecare. In E and Pt, children were monitored by primary care centres that were separate from the schools.

There were three different organizational systems and locations of services:

- Medical and nursing personnel appointed as 'school health staff whose activity was not confined to schools' (this was the case in Dk, where such personnel also worked in crèches, kindergartens, special schools and with families).
- 'Health personnel whose activity was mainly focused on schools.' This was the case in B, Ch, F and Pl (for the case of Pl, where there were school nurses, bearing in mind that there were differences with respect to healthcare provision in the various geographical areas). In this group, the personnel were sometimes physically present in schools (as in F) or in health centres in the community.
- 'Nurses and doctors working for the local health services', based mainly in primary health centres and working in schools on an ad hoc basis (E, Pt).

Children's health services in each country

The study showed that most countries provided the same type of services for children. The difference was whether the services

Table 1 Location of health services for young people in school settings and existence of specific school health (SH) personnel according to country

Location of health services	Countries						
	Belgium	Denmark	France	Spain	Switzerland	Poland	Portugal
In the community							
With specific ^a SH teams	Yes Exclusive ^b SH	Yes Not exclusive SH			Yes Exclusive SH but there are exceptions	Yes Not exclusive SH	
Without specific SH teams				Yes Not exclusive SH but there are exceptions			Yes Not exclusive SH
In the schools							
With specific SH teams			Yes Exclusive SH			Yes Exclusive SH	

a: Specificity refers to the fact that there is a team with a specific SH mission

b: Exclusivity refers to the fact that teams work exclusively in SH

were located mainly within the community or within schools (table 1):

- Mainly within the community: This situation applied to E, which did not systematically have specific school health personnel. B, Ch (Jura) and Pt had specific school health personnel in community health services. Dk could be included in this group given that, although there were specific personnel, they did not work exclusively in schools.
- Mainly within schools: This situation applied to F and sometimes Pl but only as far as school nurses were concerned.

The provision of individual and collective healthcare services was analysed using a health promotion model that incorporates health education, health protection and prevention¹⁷ (table 2). The following services were provided:

- Health screening was carried out in all countries, mainly in health centres but also in schools. Doctors and nurses were the main personnel concerned.
- Curative care in school was not provided in any country as a main objective. It was provided by local general practitioners (GPs), local health centres or hospitals, as appropriate. However, first aid might be administered by nurses within schools where such personnel were available.
- Nursing staff were nearly always required to deal with cases of child abuse at some stage. In certain cases, these staff were the first level of care (Ch, E, F, Pl) whereas in other countries they tended to be only the second level (B, Dk).
- For the provision for pupils with special health needs (this term refers mainly to handicapped children or to children with a health problem who need some type of specific support for integration within a general school setting), the school community was often the first level of attention (Dk, E, Pl, Pt). Health centres were also the first level of care in B and school doctors in F.
- Vaccinations were monitored in all countries, in health centres or by family doctors (Dk, E, Pt) and/or by school health personnel (B, Ch, F). Pl did both.
- The suitability of the school environment (compliance with basic safety rules for buildings, ergonomics of the children's working environment, hygiene, etc.), was monitored primarily by the school (Dk and Pl) or by school health professionals (B, Ch, F) or by local health centres as in Pt.
- In some countries, health education was mainly the responsibility of health professionals (B, Ch, F, Pl). These personnel organized projects and set up links with the educational community in the field of health education.

In other countries (Dk, E, Pt), teachers tended to play a major role in health education, setting up links with health professionals to support their actions or contribute specific medical knowledge.

- There was strong convergence among interviewees, who pointed out that there was a tendency to focus mainly on specific screening services regarding children's individual health (eyesight, hearing, physical and mental development) rather than on health education and health promotion in general. These individual screening examinations were considered to be necessary but were sometimes not followed up by a more global approach.

The interviews also revealed a number of convergent issues in all countries, as follows:

- There was a broad consensus that institutional texts tended to highlight the importance of global health approaches.
- Although the institutional texts proposed global health approaches, the Belgian, Swiss, Danish and French interviewees considered that there was too much focus on screening activities to the detriment of other activities, such as health promotion. The traditional medical approach remained deep-rooted, even though the institutional texts called for a more global health promoting approach.
- The presence and quality of links with external national, regional or local organizations were always considered to be strong points. Some interviewees considered that a lack of close links between the education and health systems was associated with the appearance of problems.
- The interviewees also stressed the difficulties related to day-to-day practice, in particular a lack of financial and human resources.
- Interviewees in countries where school health was organized at regional or local level stressed the presence of inequalities, related either to the choice of communities (Denmark, Switzerland and Belgium) or investment in local healthcare centre personnel (Spain, Portugal).

Models

The above information was used to define three models for the provision of school health services, reflecting the main trends in the field of health promotion (figure 1).

- Community-based (Ch, Dk, E, Pl, Pt): health policy focused on children and adolescents. The emphasis was on the coherence of healthcare provided for young people by health professionals working mainly in the community. Although health professionals did not work inside schools

Table 2 Health care services provided for children within schools or outside the school setting and health professionals involved

Individual or collective care	Country						
	Belgium	Switzerland	Denmark	Spain	France	Poland	Portugal
Screening	School doctor ^a School nurse ^a	School nurse School doctor	GP School nurse School doctor	Out of school Health centre or GP	School doctor School nurse	School nurse GP	Out of school Health centre or GP
Diagnosis and treatment	Out of school Health centre	Out of school Health centre	Out of school GP	Out of school Health centre	Out of school GP	Out of school GP	Out of school Health centre
Child abuse protection	School staff ^b School doctor School nurse	School nurse School doctor	School staff	Health centre	School doctor School nurse	School nurse School staff	?
Integration (e.g. handicapped children)	Health centre School doctor School nurse	School staff	School staff	School staff	School doctor	School staff	School staff
Vaccination follow-up	School doctor School nurse	School nurse School doctor	School doctor School nurse		School nurse		
School environment	School doctor School nurse	School nurse School doctor	Out of school GP	Out of school Health centre	School doctor School nurse	School nurse GP	Out of school Health centre or GP
School health education	School doctor School nurse	School doctor	School staff	?	School doctor School nurse	School staff	Health centre
		School staff School nurse School doctor	School staff	School staff GP Health centre nurse	School doctor School nurse	School staff School nurse	School staff Health centre

? indicates no specific data found

a: School nurse or doctor can be based within or outside of school

b: School staff refers to a specific person from the education system rather than from the health system

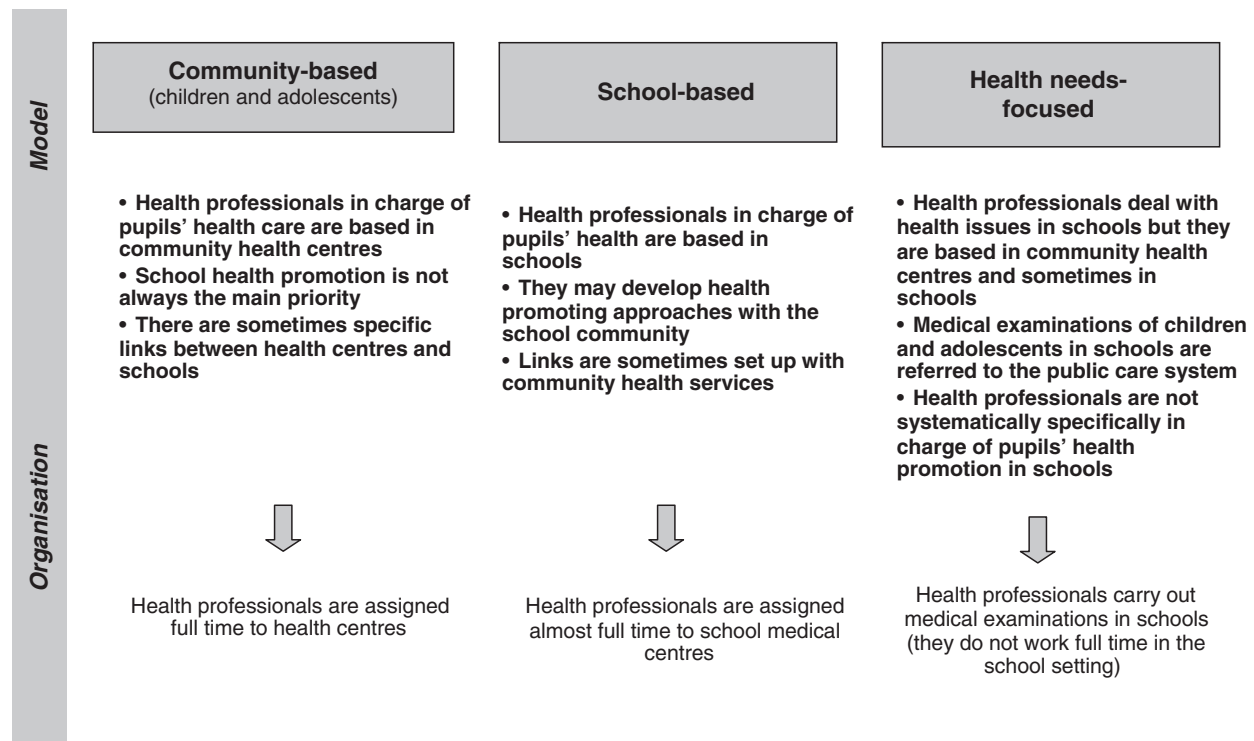


Figure 1 Three models of health provision to improve children's health in schools

or provide expert advice for the drawing up of health promotion projects, they were well-placed to act as a bridge between actions undertaken by schools and those undertaken at community level.

- School-based (B, Dk, F): health policy considered schools to be an environment that should improve the health of young people. It aimed to ensure coherence at school level. Health professionals played the role of experts within schools and contributed to health promotion projects in schools. The risk was clearly the potential isolation of schools, operating according to their own policies. In these countries, school guidelines emphasized the need to establish close links with local health structures in particular.
- Health needs-focused (Ch). The emphasis was on tackling public health issues affecting children and adolescents in schools. There were no specific health professionals within the school setting but community health professionals might carry out specific tasks for schools, such as screening and liaison with the healthcare system. This made it more difficult for health professionals to contribute to a global health promotion approach aimed at children and adolescents at school.

Some countries used more than one model.

Discussion

There is clear convergence on a European scale when it comes to the implementation of school health promotion strategy.^{14,21–23} Health and schools have become non-dissociable. Although the primary goal of schools is to provide education rather than to contribute to public health policy, they are ideal places for health education and promotion because there is a clear link between health, acquisition of knowledge and academic success. There is a substantial body of evidence showing that academic success and health are related and that schools are ideal places for implementing health education and promotion as well as health risk prevention at an early age.^{24–32} As all children

must attend school, schools cover the whole of the school age population. They cover children and adolescents who are going through the most important stages of their physical, emotional and cognitive development. The family may be the most important framework for their development, but schools also have a specific responsibility in terms of ensuring that pupils are in good health and preparing them for their future life as adults and citizens.

This study assumed that something could be learned from a comparative analysis and that it would be possible to improve our knowledge of the system in force in a given country by comparing it with systems in other countries and that the knowledge derived from a comparative study could be used as a lever to improve systems.³³ It is not a question of importing measures already set up in other countries that have different cultures and different systems of organization. It is primarily a matter of considering the pertinence of these policies.

The main results of this study illustrate that strategies for improving pupils' health varied considerably. The main differences lay in the provision: the existence or otherwise of a special school health service within the school, the presence or absence of health teams in schools, and the presence or absence of nurses and doctors in schools. Three types of school health provision were identified: community-based, school-based and health needs-focused. These systems were set up on the basis of policy documents. Although the interviews were not representative, they showed that these systems could evolve in practice. For example, the French system is clearly school-based. However, local school priorities can cause a shift towards a health needs-focused approach linked to disease prevention and medical examinations. It is clearly not a question of making a judgement on the value of the policies undertaken by each country but rather of demonstrating the foundation for such policies. This classification is necessarily schematic but it shows the basis of the existing systems. Each of the three approaches had strengths and weaknesses, which varied

depending on the general orientation of school health services. The strengths of the school-based approach were the availability of services, the proximity of the population and the close links with the whole school community. Its weakness was a potential lack of links with local health centres and with families. These limitations were less likely to occur in the community-based approach, particularly where health centres had infrastructures specifically dedicated to schoolchildren. In spite of this advantage, in a community-based approach, it might be difficult for a health system to be integrated within schools and be accepted. For a health needs-focused system, actions might be based on a biomedical rather than a global approach. When analysing these approaches, two sets of questions emerged in particular:

- What role do health professionals play in health promotion for children and adolescents at school? How much of the health professional's activity should be devoted to health promotion in schools? Is it possible to promote school health without specifically appointed health professionals? What are the links between health centres and schools? It is clear that GPs who are called into schools on an ad hoc basis are not in the same position as school doctors to advise the education community on how to deal with health matters.
- In those countries with a school health system, the system has to overcome two obstacles. If the state is responsible for the health system, how can it meet its long-term commitment when the number of civil servants is being drastically reduced in European countries? If local authorities are responsible for the services, how can it be ensured that the system provides uniform services in all regions? What type of institutional framework can provide a good-quality service for each pupil, in particular the most vulnerable? The question of the commitment of the responsible authorities does not apply solely to practical issues. In addition, and perhaps above all, it is a matter of culture and policy.

Despite the different approaches, the health services provided for children and adolescents were generally the same in all countries. However, the emphasis on particular aspects varied from country to country, depending on the political and institutional culture as well as on public health priorities. Individual screening was always carried out (either by the local health services or by special health services for children and adolescents and/or by school health services). All countries had health education and promotion strategies but, again, the approaches were very diverse. They were either implemented by a dedicated category of professionals (health personnel or teachers) or considered to be a mission for the educational community as a whole. These services are similar to those provided by the national association of school nurses except for the last: leadership for the provision of health services, screening and referral for health conditions, promoting a healthy school environment, promoting health, leadership role for health policies and programmes, liaison between school personnel, family, community and healthcare providers, direct healthcare to students and staff.³⁴

As the European Network of Health Promoting Schools states, 'a health promoting school uses its management structures, its internal and external relationships, its teaching and learning styles and its methods of establishing synergy with its social environment to create the means for pupils, teachers and all those involved in everyday school life to take control over and improve their physical and emotional health'.³⁵ This study showed that there are many different ways in which health services can contribute to school health promotion. The future challenge, for all types of organization, is to encourage the development of links between school

professionals and community professionals, irrespective of whether these are health professionals or not, to ensure a global health promoting approach. Developing skills to establish a common culture for health professionals and education professionals within and out of school seems to be a promising line of approach,³⁶ as well as allowing schools to set up their own programmes tailored to fit the organization and school structure.^{10,37}

Funding

UNSA (financial support).

Conflicts of interest: None declared.

Key points

- The provision of health services in schools varies considerably across the countries studied.
- Despite the different approaches for provision, the health services provided for children are very similar in all countries.
- There are differences in the status and role of professionals involved in healthcare for children and adolescents in schools.
- In terms of public health policy, each country should encourage the development of links between school professionals (whether health professionals or not) and community professionals, to ensure global health promotion, whatever the approach to providing the services.

References

- 1 Sauer F. Le traité de Lisbonne ouvre de nouvelles perspectives à l'Europe de la santé. *ADSP* 2008;61/62:13–6.
- 2 European Commission. *Together for Health: A strategic approach for the EU 2008–2013*. Brussels: European Commission, 2007.
- 3 Berthod-Wurmser M. Régulation et réformes de la protection maladie en Europe. *Revue Française d'administration publique* 1995; 585–98.
- 4 Association d'Economie Financière. Le financement de la santé. *Revue d'économie financière* 1995;34:1–409.
- 5 Union Européenne. *Direction générale Emploi RieAs. La santé publique en Europe*. Luxembourg: Office des publications officielles des Communautés européennes, 1997.
- 6 Oberklaid F. It's time: the future of school health in Australia. *J Paediatr Child Health* 1990;26:244–51.
- 7 Prebeg Z. A new organization of school health services: its twilight or renaissance? *Lijec Vjesn* 1998;120:257–61.
- 8 McBride N, Midford R. Encouraging schools to promote health: impact of the Western Australian School Health Project (1992–1995). *J Sch Health* 1999;69:220–6.
- 9 Lear JG. Schools and adolescent health: strengthening services and improving outcomes. *J Adolesc Health* 2002;31(6 Suppl):310–20.
- 10 Lee A, Tsang C, Lee SH, To CY. A comprehensive "Healthy Schools Programme" to promote school health: the Hong Kong experience in joining the efforts of health and education sectors. *J Epidemiol Community Health* 2003;57:174–7.
- 11 Lee A. The concept of health promoting schools to enhance positive youth development. *Asia Pac J Public Health* 2004;16 Suppl:S3–6.
- 12 Waggle F, Gordon N, Brijlal P. The school, a viable educational site for interdisciplinary health promotion. *Educ Health (Abingdon)* 2004;17:303–12.
- 13 Lear JG. School-based services and adolescent health: past, present, and future. *Adolesc Med* 1996;7:163–80.

- 14 UNESCO, UNICEF, WHO, WORLD BANK. *Focusing resources on effective school health*. Internet Communication, 2006.
- 15 *First workshop on practice of evaluation of the Health Promoting School-models, experiences and perspectives*, 1998. Available at <http://www.euro.who.int/document/e75005.pdf> (6 August 2009, date last accessed).
- 16 Saint-Leger L. Health promotion in schools. In: ECSC-EC-EAEC, *The evidence of health promotion effectiveness: shaping public health in a new Europe. Part two*. Luxembourg, 1999, 110–33.
- 17 Downie RS, Tannahil C, Tannahil A. *Health promotion. Models and values*. Oxford: Oxford University Press, 1996.
- 18 Tashakkori A, Teddlie C. *Handbook of mixed methods in social and behavioral research*. Thousand Oaks: Sage Publications, 2003.
- 19 Vigour C. *La comparaison dans les sciences sociales*. Paris: La Découverte, 2005.
- 20 Pommier J, Jourdan D. *La santé à l'école dans les pays européens*. Paris: Sudel, 2007.
- 21 IUHPE. *The evidence of health promotion effectiveness: shaping public health in a new Europe. Part two*. Luxembourg, 1999.
- 22 Broesskamp-Stone U. *Assessing networks for health promotion*. Münster: Transaction Publishers, 2004.
- 23 Jeanneret O. Santé à l'école ou Ecoles en santé? *Santé Publique* 2003;2:167–80.
- 24 Lavin AT, Shapiro GR, Weill KS. Creating an agenda for school-based health promotion: a review of 25 selected reports. *J Sch Health* 1992;62:212–28.
- 25 Mukoma W, Flisher AJ. Evaluations of health promoting schools: a review of nine studies. *Health Promot Int* 2004;19:357–68.
- 26 Expertise collective INSERM. *Education pour la santé des jeunes: démarches et méthodes*. Institut National de la Santé et de la Recherche Médicale ed. Paris: INSERM, 2001.
- 27 Expertise opérationnelle INSERM. *Santé des enfants et des adolescents: propositions pour la préserver*. Paris: Institut national de la santé et de la recherche médicale, 2003.
- 28 Bantuelle M, Demeulemeester R. *Comportements à risque et santé: agir en milieu scolaire*. Saint-Denis: INPES, 2008.
- 29 Bond L, Patton G, Glover S, et al. The Gatehouse Project: can a multilevel school intervention affect emotional wellbeing and health risk behaviours? *J Epidemiol Community Health* 2004;58:997–1003.
- 30 Patton GC, Bond L, Carlin JB, et al. Promoting social inclusion in schools: a group-randomized trial of effects on student health risk behavior and wellbeing. *Am J Public Health* 2006;96:1582–7.
- 31 Stewart-Brown S. *What is the evidence on school health promotion in improving health or preventing disease and, specifically, what is the effectiveness of the health promoting schools approach?* Copenhagen: WHO, 2006.
- 32 Lister-Sharp D, Chapman S, Stewart-Brown S, Sowden A. Health promoting schools and health promotion in schools: two systematic reviews. *Health Technol Assess* 1999;3:1–218.
- 33 Bottani N, Vrignaud P. *La France et les évaluations internationales*. Report No.: 16. Haut Conseil de l'évaluation de l'école, 2005.
- 34 Council of School Health. Role of the School Nurse in Providing School Health Services. *Pediatrics* 2008;121:1052–6.
- 35 Gray G, Young I, Barnekow Rasmussen V. *Developing a health-promoting school: A practical resource for developing effective partnerships in school health, based on the experience of the European Network of Health Promoting Schools*. European Network of Health Promoting Schools, 2006. Available at <http://www.euro.who.int/document/e90053.pdf> (6 August 2009, date last accessed).
- 36 Bantuelle M, Demeulemeester R. *Comportements à risque et santé: agir en milieu scolaire*. Saint-Denis: INPES, 2008.
- 37 Saint-Leger L, Kolbe LJ, Lee A, McCall D, Young I. School health promotion: achievements, challenges and priorities global. In: McQueen DV, Jones K, editors. *Perspectives on health promotion effectiveness*. Saint-Denis: Springer, 2007, 107–24.

Received 13 January 2009, accepted 16 July 2009