Turning the tide: national policy approaches to increasing physical activity in seven European countries

Fiona Bull,¹ Karen Milton,² Sonja Kahlmeier,³ Alberto Arlotti,⁴ Andrea Backović Juričan,⁵ Olov Belander,⁶ Brian Martin,³ Eva Martin-Diener,³ Ana Marques,⁷ Jorge Mota,⁷ Tommi Vasankari,⁸ Anita Vlasveld⁹

ABSTRACT

For numbered affiliations see end of article.

Correspondence to

Professor Fiona Bull, Centre for the Built Environment and Health, School of Population Health, The University of Western Australia, MB 707, 35 Stirling Highway, Crawley, WA 6009, Australia; Fiona.bull@uwa.edu.au

Received 15 October 2013 Accepted 24 February 2014 **Background** Physical inactivity is one of the four leading behavioural risk factors for non-communicable disease (NCD). Like tobacco control, increasing levels of health-enhancing physical activity (HEPA) will require a national policy framework providing direction and a clear set of actions. Despite frequent calls, there has been insufficient progress on policy development in the majority of countries around the world. This study sought and summarised national HEPA policy in seven European countries (Finland, Italy, the Netherlands, Norway, Portugal, Slovenia and Switzerland).

Methods Data collection used a policy audit tool (PAT), a 27-item instrument structured into four sections. Results All countries reported some legislation or policy across the sectors of education, sport and health. Only some countries reported supportive policy in the transport and environment sectors. Five countries reported a stand-alone HEPA policy and six countries reported national recommendations. HEPA prevalence targets varied in magnitude and specificity and the presence of other relevant goals from different sectors highlighted the opportunity for joint action. Evaluation and the use of scientific evidence were endorsed but described as weak in practice. Only two countries reported a national multisector coordinating committee and most countries reported challenges with partnerships on different levels of policy implementation. **Conclusions** Bringing together the key components for success within a national HEPA policy framework is not simple. This in-depth policy audit and country comparison highlighted similarities and differences and revealed new opportunities for consideration by other countries. These examples can inform countries within and beyond Europe and guide the development of national HEPA policy within the NCD prevention agenda.

INTRODUCTION

Non-communicable diseases (NCDs) are the leading cause of global mortality, accounting for two-thirds of deaths worldwide.¹ ² In 2009, the World Health Organization (WHO) identified physical inactivity as the fourth leading risk factor for mortality.² People who are insufficiently active have a 30% increased risk of all-cause mortality³ and physical inactivity is 'conservatively' estimated to cause 6–10% of deaths from NCDs.³ ⁴

For over a decade, and particularly since the publication of the Global Strategy on Diet, Physical Activity and Health (DPAS),⁵ there have been recurrent calls for countries to develop a national policy approach to physical activity.⁶ ⁷ A strong policy framework for health-enhancing physical activity (HEPA) is necessary to define a plan for coherent multilevel action, to foster partnerships across sectors and to secure political commitment and gain recognition as a priority policy area.

Despite the recognition of need, arguably, there has been insufficient progress on the development of national HEPA policy in the majority of countries around the world. Some, mostly high income,⁸ ⁹ countries have, or have had, policies addressing HEPA either as a 'stand-alone' HEPA policy or with HEPA integrated within sports, health or education policy. However, there are few countries that can demonstrate a sustained, comprehensive national policy framework combined with evidence of effective implementation.

Recently, the need for policy level intervention to increase HEPA received renewed endorsement at the highest levels. The United Nations Declaration and the recent WHO Global NCD Action Plan 2013-2020 reinforced the central role of HEPA in a comprehensive approach to the treatment and prevention of NCDs.¹⁰ ¹¹ Given these mandates, many countries wish to learn what a successful national policy framework for physical activity might look like and how to develop and implement such approaches in different contexts. The aim of this study was to identify and summarise examples of national policy approaches from a set of European countries and to compare and contrast the development process, content and implementation. The findings and insights aim to inform countries within and beyond Europe as they develop or update their national HEPA policy and respond to the NCD prevention agenda.

METHODS

The project was undertaken during 2009–2012, under the auspices of the European Network for the Promotion of HEPA.¹² Invitations to participate were sent to members of the HEPA Europe working group on national approaches to physical activity promotion. National experts from seven countries elected to take part (Finland, Italy, the Netherlands, Norway, Portugal, Slovenia and Switzerland). This set represents a group of countries with varying history in the promotion of physical activity and at different stages of policy development and implementation.

To cite: Bull F, Milton K, Kahlmeier S, et al. Br J Sports Med Published Online First: [please include Day Month Year] doi:10.1136/ bjsports-2013-093200

Original article

For each country, a primary contact person was identified who led the coordination, collaboration and completion of the policy audit. Lead individuals were from diverse backgrounds and included: academics (n=2; Portugal and Switzerland); national or subnational government officials (n=2; Italy, Norway) or representatives of a relevant national institute (n=3; Finland, the Netherlands and Slovenia).

Data collection was undertaken using the policy audit tool (PAT), a standardised instrument to assess national policy approaches to physical activity. The PAT is a 27-item instrument structured into four sections: (1) overview of the country and government structure; (2) policy and content; (3) policy implementation and (4) methods of completion and collaboration.¹³ ¹⁴ The PAT was developed based on a small number of previous approaches to policy analysis and the key policy guidance available. Full details of the PAT development process are published elsewhere.¹⁵

Country coordinators were advised to identify and review all available policy documents, programmes and relevant activities from across multiple sectors and, where possible, to collaborate with colleagues from different agencies who have the necessary expertise and knowledge (both current and historical) for completion and finalisation of the PAT. Some translated the PAT for completion, and in some cases coordination meetings were held. During the data collection period, project coordination and technical assistance were provided by the core project team (authors FB, KM and SK) via teleconferences and email communication. In most countries, data are representative of the national situation up to May 2011.

The data analysis was performed using directed content analysis, whereby the key elements of physical activity policy captured via the PAT were used to guide the development of the coding themes. The primary aim of the analysis was to identify similarities and differences between countries on the key themes of interest.¹⁶ This paper reports on the findings of the following themes: presence of legislation, national policy and actions plans; national HEPA recommendations, goals and surveillance; community-wide education; use of evidence and evaluation and leadership and intersectoral partnerships.¹⁴ Further details of other analyses can be found in the Technical Report.

RESULTS

All countries completed the PAT using an iterative approach involving collaboration with a range of government and non-government partners contributing to the responses. On average, completion took approximately 1 year due to initial data collection being undertaken concurrently with the development of the final PAT.¹³ The detailed policy reports on each individual country are available. Below is a summary of the key findings from the cross-country analysis on key themes.¹⁴

Legislation and national policy context

Table 1 shows the presence of legislation, policy or other key documents across relevant sectors by country. Five countries reported having specific physical activity policies, three of them solely on physical activity (Finland, Norway and Slovenia).^{17–19} In two countries, HEPA was combined with sport and education (in the Netherlands) or healthy diet (in Switzerland).^{20 21} In the remaining two countries, Italy and Portugal, physical activity was incorporated within the broader public health policy.^{22 23}

Interestingly, most countries identified legislation relevant to HEPA in the areas of education, sport and health. The most commonly reported sector with legislation was the education sector, with all countries reporting mandatory physical education in schools. Italy was the only country to report legislation on school buildings and the provision of sports facilities. Legislation within the health sector generally linked HEPA with the wider public health agenda to promote health and prevent disease. The level of detail on HEPA within these policy requirements varied. In the sports sector, examples of legislation covered the creation of the National Olympic Committee (Italy), the establishment of a National Sports Institute (Portugal), the endorsement of physical activity guidelines (Portugal), the delivery of national sports programmes (Slovenia) and funding for sport (Switzerland).

HEPA-related legislation and policy from the transport and environment sectors was reported by some, but not all, countries. Transport policies often stated requirements for nonmotorised transport (cycling or walking), actions aimed at improving mobility, reducing carbon emissions and addressing road safety. One example of legislation from the environment sector was the specification on free access to open space in Switzerland.²⁴

Two countries indicated that the Ministries of Health provided most of the funding (the Netherlands and Portugal), whereas elsewhere the majority of funding came from sport (Norway) or from the subnational level (Italy and Slovenia). Three countries (Norway, Slovenia and Switzerland) reported that the Ministry of Transport contributed funding for HEPA promotion. Sustainability of funding was reported as a key challenge by a number of countries, often related to changes in political commitment, for example, after a change in government.

National recommendations on HEPA

National HEPA guidelines (or recommendations) provide a consensus position on the amount of physical activity needed for health benefits and also provide the foundation for national targets and a benchmark for evaluating progress. Six countries (excluding Italy) reported that they had national recommendations, either developed through a national consultation process or by adopting international recommendations. These countries reported separate guidelines or recommendations for children and adults. Only in the Netherlands had specific recommendations been developed for the older adult population. The recommendations for each age group were broadly similar across countries, and reflect the international consensus on the amount of physical activity necessary to benefit health. However, no country had yet adopted or officially endorsed the new WHO global recommendations.²⁵ Several countries had tailored recommendations to specific health benefits and/or specific population groups (by gender, age, level of inactivity). Finland and Switzerland had stated recommendations on limiting sedentary behaviour.

National goals and targets

Setting specific, measurable targets provides a means of evaluating progress and a level of accountability. Six countries reported national targets on increasing the prevalence of the population achieving recommended levels of HEPA (table 2). Two countries had only simple statements of intent, namely to 'increase' the number of people who are physically active and 'decrease' the number of people who take no exercise. Without specifying a magnitude of change and a time frame for achievement, these countries cannot evaluate the success or failure of their national policy and actions. In contrast, several countries reported very specific targets; examples are: "to increase the proportion of young people (4–17 years) that meet recommended physical activity levels from 40% in 2005 to 50% by

	PA s	pecific		Heal	th		Spor	t		Educ	ation		Tran	sport		Envii	onment	
Country	L	Р	0	L	Р	0	L	Р	0	L	Р	0	L	Р	0	L	Р	0
Finland	1		1		1	1	1		1	1		1		1				
Italy				1	1	1	1			1							1	
The Netherlands		1		1	1			1	1	1	1			1			1	1
Norway		1		1	1			1	1	1			1	1		1	1	
Portugal			1		1		1	1		1						1	1	
Slovenia		1		1	1		1	1		1			1	1		1	1	
Switzerland		1		1	1		1	1		1			1	1		1	1	

L, legislation; P, policy; PA, physical activity; O, other relevant documents.

2012" (the Netherlands); "to stabilise and then increase by 1% per year the proportion of physically active people" (Switzerland). In Portugal, very specific targets were set for different age categories (eg,15–24, 25–34, 35–44, 45–54, 55–64 and 65–74 years), and separate targets were set for men and women. Although a relatively new field of science, three of the seven countries reported specific goals for reducing sedentary behaviour.

In addition, goals other than those related to prevalence of HEPA were identified from across different sectors and settings including education, healthcare, transport, sport and the environment (table 3). Examples included: a requirement for every household to have 75 m^2 of green space (the Netherlands); for 3% of residential areas to be allocated to a playground (the Netherlands); for the proportion of cycling trips to increase from 5% to 8% by 2019 (Norway); and for the knowledge of the benefits of HEPA to be increased among health professionals (Finland).

Monitoring and surveillance

A national surveillance system is necessary to track trends in HEPA and progress towards set goals and targets. Five countries

Country	Phrasing
Finland	Resolution concerning the development of health enhancing physical activity and diet, 2008 To increase the number of people exercising enough for their health and decrease the number of those who do not exercise at all
Italy	None specified
The Netherlands	Time for Sport (2005) ► Youths (12–17 years old) who meet the exercise standard will increase from 35% in 2004 to 40% by 2010 ► By 2010, 65% (2004, 60%) of the adult population in the Netherlands will meet the international exercise standard
	 Power of sport (2008) ► In 2012, at least 70% of adults (18+) do the recommended amount of exercise (2005, 63%) ► In 2012, at least 50% of young people (aged 4–17) do the recommended amount of exercise (2005, 40%) ► In 2012, no more than 5% of adults in the Netherlands are inactive (2005, 6%)
Norway	The Action Plan on Physical Activity, 2005–2009 ► An increase in the number of children and youth who are physically active for at least 60 min/day ► An increase in the number of adults and elderly people who are moderately physically active for at least 30 min/day
Portugal	 National Health Plan, 2004–2010 To reduce the prevalence of individuals who have spent most of their free time with sedentary activities: Persons aged 15–24 years: 45.5–15% in men and 64.2–16% in women Individuals of 35–44 years: from 67.5% to 34% in men and 77% to 39% in women Individuals 55–64 years: 70–35% in men and 83.2–42% in women Individuals of 65–74 years: from 75.5% to 38% in men and from 87% to 44% in women
Slovenia	 HEPA Strategy, 2007–2012 Increasing the share of young people doing for at least 1 h every day by 30% Reducing the share of children and adolescents who in their free time spend more than 4 h a day sitting in front of the television or computer by 30% Reducing the share of completely inactive adults by 30% Reducing the share of adults who in their free time spend more than 4 h a day sitting in front of the television or computer by 30% Reducing the share of adults who in their free time spend more than 4 h a day sitting in front of the television or computer by 30% Reducing the share of adults who are sufficiently active by 20% Reducing the share of over-65s who in their free time spend more than 4 h a day sitting in front of the television or computer by 20% Increasing the share of over-65s who are sufficiently active by 20% Increasing the share of participation of pregnant women in physical activity programmes by 40%
	National Programme of Sport, 2000–2010 ► 2.5% Annual increase of people practising sports regularly and 1% increase of (currently non) active citizens
Switzerland	 Sport Policy, 2003–2006: First stabilising and then increasing by 1% per year the proportion of physically active people (adults) Sport Policy, 2007–2010: Increase of physically active people

reported having an established surveillance system; some countries had a long history dating back to the 1970s (Finland and Slovenia), whereas in other countries this was a relatively recent development (Italy and the Netherlands). Systems varied from continual data collection with annual reporting (eg, PASSI, Italy) to repeated surveys conducted and reported on a 5-year cycle (eg, Swiss Health Survey). In the remaining two countries, Norway and Portugal, only one national survey had been conducted but plans were underway to develop an ongoing monitoring system.

Community-wide communication and education

Public education on lifestyle risk factors has been a cornerstone of health promotion. Community-wide campaigns can raise awareness and knowledge of the health benefits of active living, provide motivation and prompt behaviour change and promote opportunities and programmes.²⁶ Most countries reported some experience with the national mass media (or large scale) communication campaigns, but in general these were linked to specific HEPA initiatives and were not an overarching or 'unifying' campaign on HEPA. However, there was one example from the Netherlands where the '30 minutes moving' message is used consistently across and to link all interventions. In contrast, Finland reported that many different providers promoted different activities and each had their own communication campaign.

Evidence-informed policy

All countries reported that their policy endorsed the use of the best available evidence. However, they also acknowledged that achieving this in practice was a challenge. Only one country (the Netherlands) reported an established process for developing evidence-based policy.

Here, the Netherlands Institute for Sport and Physical Activity (NISB), a government funded agency, sought to keep abreast of research developments and provided a central role ensuring that the relevant scientific evidence was taken into consideration. Tasks included consultation with scientific organisations, universities and research institutes. Other countries reported a general intent to use scientific evidence but no specific details of the systems or mechanism were provided. In general, most countries reported that the use of evidence varied considerably.

Evaluation

All countries reported recognition of the need to evaluate policy; however, limited evidence of implementation was provided and, in general, practice was described as weak. There was only one example (Norway) of a formal independent external evaluation of national policy.²⁷ In other countries, evaluation was reported to be more commonly undertaken at the specific programme level, and even then described as inconsistent. Evaluations that were conducted tended to focus on impact and outcomes, and there was recognition of the need for more process evaluation to inform how to implement and deliver successful programmes. In some countries, no evaluation was reported at all or it was planned but did not take place (eg, Portugal reported that the planned evaluation of 'Mexa-se' did not eventuate). In addition, examples were reported where programmes were abolished despite positive evaluation results.

Leadership and multisectoral collaboration

The Ministry of Health was most frequently identified by all countries as the provider of leadership and coordination of HEPA. Six countries (not Italy) reported either a clear partnership with at least one other ministry and in two countries the existence of a larger multisector coordinating committee (Finland and Norway). All countries reported that policy implementation was delegated to the subnational jurisdictions (eg, provincial, canton or local level administrations). In many countries, there was a requirement for regional and local area plans to be developed and to align closely with the national policy direction. However, the specifics of these and the process and success of local planning was not assessed in detail in this project.

All national policies and action plans were reported to emphasise the importance of cross-government action and working in partnership with stakeholders. Although recognised 'in theory', most countries reported that this was not effective across all levels of policy development and implementation. For example, collaboration was reported to be much stronger at the national level than at the regional and local levels in Finland. Also, Norway reported strong partnerships at the national level in the development of the Action Plan on Physical Activity which was signed and endorsed by eight ministries but experienced more challenges in establishing strong links between other national bodies such as the Health Directorate, the private sector and non-government organisations.

DISCUSSION

This project aimed to capture and compare the progress and experiences on developing and implementing the national HEPA policy framework in seven European countries. These countries were selected to reflect diversity in experiences and approaches, rather than to demonstrate 'best practice' in policy development. Overall, the results demonstrate much activity in the development of a national policy approach to physical activity promotion in these countries.

We found that all countries had a range of relevant legislation and policies. As the most formal and legally binding instrument of government, the presence of legislation with direct and indirect relevance to HEPA can and should be used to increase the priority afforded to HEPA within the political agenda and to leverage long-term human and financial resources. Five countries had a specific physical activity policy and the breadth of policies with direct links to HEPA promotion from across sectors other than health and sports was encouraging.

The development of a stand-alone policy on HEPA was recommended in DPAS;⁵ however, the recent direction set by the WHO¹¹ has shifted towards an overarching NCD treatment and prevention action plan addressing multiple risk factors. Although this approach has some advantages, there are potential unintended outcomes. More focus may be given to those behavioural risk factors where there is stronger existing capacity or advocacy, and this could result in insufficient attention, or only a narrow set of actions on HEPA in some countries. To ensure that a broader NCD prevention policy contains a robust action plan for HEPA requires vigilance by those directly involved in policy making, as well as strong advocacy by those who can influence and inform the policy process.

Successful components of a national action on physical activity have been previously identified^{9 28 29} and we sought to identify progress in these seven countries. Key components include national recommendations and targets on HEPA and we found that both were reported by most countries, but the reporting of measurable targets were lacking in several countries. National guidelines can provide the foundation for planning interventions and community-wide communication campaigns. We found the guidelines to be consistent with international evidence²⁵ and the

Table 3 Examples of HEPA-related goals and targets by sector and country

	Education/work	Health(care)	Environment	Transport	Sport	Other
Finland	Students and employees have an opportunity to get support and encouragement for increasing physical activity Employers have effective ways to enhance physical activity of employees	The knowledge of HEPA and a healthy diet is increased in health and exercise professionals Physicians and nurses to give their patients exercise prescriptions In primary healthcare, there are enough exercise guidance services available	Environment and operational culture of children care and schools support a physically active lifestyle Every age group has 'easy reached' sport and exercise places near their homes	300 million more trips should be carried out by walking and cycling by the year 2020		More knowledge, support and opportunities for physically active lifestyle are available for children, youths and families Older people have high-quality, easily reached and cost-effective exercise service available All people have good possibilities for everyday physical activity 'Health in all policies'—principle is taken into account in local decisions
Italy	None reported	By 2008, sports medicing will assume a	There should be 75 m ²		By 2010, the likelihood	Pu 2010 the disperity in sports
	every pupil to practise sport every day during and outside school hours	by 2008, sports medicine will occupy a position in its own right within the occupational and educational structure of healthcare 600 professionals will be taught to practise the 'beweegkuur' programme 236 000 people will participate in courses	green space per household, and 3% of habitation area should be a playground for children		by 2010, the inkelinood of an injury per 1000 h of sport will drop by 10% from 1.0 to 0.9 injuries By 2010, the quality mark for modern sports clubs will have been introduced in 25% of clubs	by 2010, the disparity in sports participation among youths from immigrant backgrounds will have disappeared 500 sports clubs and sports schools will work together to provide additional supervision, while 50 will focus on care programmes for immigrant youths In 2011, a total number of 2500 professionals should be working on a local level to increase youth participation in sport, PA and culture. The main aim is to make links between the sport and PA and educational sector
Norway	Opportunities for physical activity in kindergarten, school and workplace	Focus on physical activity in health and social services	Physical environments that promote an active lifestyle	The proportion of cycling trips out will be increased from 4–5% to 8% by 2019. Increase the proportion of children and young people (<15 years) who are walking or cycling to school from 60% to 80% before 2019. All cities and towns shall have a plan for network of continuous bicycle routes by 2013 Increase road safety	As many people as possible will be given the opportunity to participate in sport and physical activity	More in physical activity at leisure time Sectoral and concerted efforts to promote physical activity in the population Enhanced knowledge and improved skills on physical activity and health Communication, physical activity and health and motivation to an active lifestyle
Portugal	None reported					
Siovenia	Establishing and implementing a strategy of physical activity for employees in 10% of large-sized and medium-sized enterprises and public	Greater healthy life expectancy and further increase in the quality of life for all population groups, health promotion and health education, reduction of health		Increasing the share of young people who normally walk or cycle to school and in their everyday routine by 20%	The main long-term goal is to become a sport nation. That can be reached by:	Reducing the share of overweight and obesity in children and adolescents by 10% Ensuring equal opportunities for

σ

Downloaded from bjsm.bmj.com on April 19, 2014 - Published by group.bmj.com

Downloaded from bjsm.bmj.com on April 19, 2014 - Published by group.bmj.com

Table 3 Continued

	Education/work	Health(care)	Environment	Transport	Sport	Other
	institutions, and establishing physical activity programmes at work for 20% of employees in the public administration	inequalities and early detection of chronic non-communicable diseases		Increasing the share of adults who normally walk or cycle to work and in their everyday routine by 20% Municipality of Ljubljana to increase the share of bicycle trips from 8% (2003) to 20% in the following years	 Increasing the number of people practising sports regularly Growth of sports culture awareness of the Slovenian nation Development of sport profession and science; raising the awareness of the individual Using nature as the largest sport area; building a network of sports facilities and sites for all categories, etc 	health enhancing physical activity for persons with special needs and for all disabled persons
Switzerland	Legally binding obligation of the cantons and communities to provide three lessons of physical education per week in their schools			Increasing physically active transport by 15% within 10 years (not officially adopted*) Increase in the proportion of physically active transport stages within the modal split of overall mobility A reduction of individual motorised transport in favour of public transport and non-motorised transport	By 2006, 75% of all communities with more than 10 000 inhabitants should have a sport vision statement and concept	By the end of 2006, 75% of all communities with 5000–10 000 inhabitants and 50% of all communities with 2000–5000 communities should have a functioning physical activity and sport network with a coordinator

*From: Draft Mission statement on human powered mobility 2002, which was not officially finalised and adopted. An action plan on human powered mobility is currently being finalised. HEPA, health-enhancing physical activity; PA, physical activity.

б

time frames for achievement were typically stated as a 5-year or 10-year period. However, the magnitude of change differed and not all countries stated a quantifiable target. The presence of additional goals outside the health sector yet still closely related to HEPA was encouraging and these present significant opportunities for partnership and joint action on a shared agenda.

Tracking progress on HEPA requires a monitoring system,³⁰ yet only five countries reported an established surveillance system. In each, this was developed after conducting several national cross-sectional surveys, a common first step to HEPA surveillance. An alternative is to secure HEPA items in an existing surveillance system. Both approaches require significant government support (and resources) and a commitment to regular data collection and reporting; however, the effort is returned in the value of trend data and a powerful advocacy tool.

Community-wide communication campaigns are used to raise awareness and educate. Also, they can provide motivational prompts for behaviour change and advertise local HEPA opportunities. We found little use of a unifying national 'branding' campaign in these countries. Instead, there was more project-specific communications with the potential unintended consequence of confusing the community with mixed messages (and overload) as well as the missed opportunity for programme synergy and cross promotion. Establishing a sustained communication campaign requires the confluence of political support, policy, budget and capacity. There are very few exemplars of such campaigns within the physical activity field.³¹ ParticipACTION (in Canada) was the longest running continuous campaign with a 30-year history and evidence of success.^{32 33} Collating more examples from other countries would support the development of a repository of exemplars. As an identified 'best buy' by the WHO,² it is important to understand why countries are not adopting and implementing mass communication strategies and what support is required to facilitate their development.

It is widely cited by academics and policy makers that policy decisions should be based on the best available evidence and evaluated. Although endorsed by all countries, getting evidence-informed actions into policy and practice was identified as a challenge. This may be due to inadequate leadership, resourcing, skills and/or the absence of a mechanism to hold anyone accountable. Addressing this 'science-policy-practice' translation gap^{34–35} is necessary and yet the prevailing methods of dissemination are largely ineffective or insufficient. Researchers and practitioners alike must turn their attention to focusing on how we should collectively work in different ways to improve translation and reduce the time it takes for evidence to be available and put to use.

The need for strong leadership to initiate new policy and secure sustained implementation of actions on physical activity is well recognised.⁶ ³⁶ Although there are many cross-sector opportunities, there is also a risk that HEPA can 'fall between the cracks' of government portfolios. The Ministry of Health was identified as the sole or dominant lead agency in these countries with the Ministry of Sport as the lead agency for the sports-related policies and actions. Partnerships between these, as well as other, ministries are an identified area of difficulty at the national and subnational levels. Interestingly, only two of these countries had a formal structure supporting the necessary multisector approach. As there is great interest in learning how to bring together and sustain effective leadership and partnership for HEPA, more examples and experiences of success should be shared in the literature and through professional networks.

Bringing together all the key components to form a strong national policy framework directed towards increasing

population levels of HEPA is not simple. For some time, physical activity has been the 'Cinderella' of risk factors-widely recognised and largely ignored.³⁷ The UN political declaration and WHO Global Action Plan¹¹ provide strong endorsements for increasing HEPA; however, changing population levels of HEPA will require a 'systems approach'³⁸ combining and coordinating changes at the individual, social and cultural, as well as environmental and policy, levels. A systems approach acknowledges the non-linear nature of changes in health behaviours. including interactions, delays in adoption, adaptations, competing actions and unintended consequences, which we are only just beginning to understand.³⁹ Although notable progress is evident within this set of seven countries, there is still a long way to go. It is estimated that less than one-quarter of all countries have any national policy or action plan addressing HEPA. Moreover, many of those countries with HEPA policies struggle to secure the necessary resources and level of implementation to achieve the desired success. This project has shown that an in-depth policy audit and cross-country comparison highlights similarities and differences, and can reveal new ideas and opportunities for other countries. The sharing of good examples of comprehensive HEPA policy and action plans between countries would be beneficial. Furthermore, global advocacy efforts and international support for countries embarking on developing HEPA policy should be increased to assist efforts to create more active populations.

What are the new findings?

- Increasing levels of health-enhancing physical activity (HEPA) require a robust national policy framework. National policy should provide clear direction and a coherent set of actions.
- There has been insufficient progress on HEPA policy development in many countries around the world.
- This study compared the national policy framework in seven European countries, namely Italy, Finland, Portugal, the Netherlands, Norway, Slovenia and Switzerland. The policy audit tool (PAT) has 27 items and is structured to help countries assess the existing HEPA-related legislation and policy framework and review progress and challenges in implementation.
- Although supportive legislation and policy was evident in the health, sport and education sectors, opportunities for more supportive policy in transport and environment exist.
- National targets on HEPA should be specific, measurable and time-bound. Identifying HEPA-related goals in sectors other than sports and health presents opportunities for partnerships and joint national action across sectors.
- Assessing the existing national policy context is an important first step to better policy. The use of PAT to collate and summarise policy provides a process and a product. The data provide a better understanding of the gaps and opportunities and the process builds collaboration and cooperation between and within sectors. Further research and dissemination of examples of HEPA policy is recommended to support countries worldwide promote physical activity.

Original article

How might it impact on clinical practice in the near future?

- General practitioners as well as other health professionals should use their influence to support the development and implementation of national and local level policy aimed at increasing physical activity.
- Governments should be held accountable for providing leadership, time-bound targets and comprehensive action directed towards increasing levels of physical activity as part of the system wide approach to the prevention of non-communicable disease.
- Medical and health practitioners and all relevant healthcare providers should reinforce the importance of regular physical activity to patients during day-to-day practice.

Author affiliations

¹Centre for the Built Environment and Health, School of Population Health, The University of Western Australia, Crawley

²School of Sport and Exercise Science, Loughborough University, London, UK

³Physical Activity and Health, Institute of Social and Preventive Medicine, University of Zurich, Zurich, Switzerland

⁴Physical Activity Promotion Consultancy at Regione Emilia-Romagna, Bologna, Italy ⁵National Institute of Public Health, Ljubljana, Slovenia

⁶Norwegian Directorate of Health, Oslo, Norway

⁷Physical Activity Research Group, University of Porto, Porto, Portugal

⁸UKK Institute of Health Promotion Research, Tampere, Finland

⁹Netherlands Institute for Sport and Physical Activity, Wageningen, The Netherlands

Acknowledgements The authors gratefully acknowledge the assistance provided by government and non-government organisations across all the participating countries in sourcing and providing information on current HEPA policy. This study would not have been possible without their help.

Contributors All authors contributed to the conception of the study, data collection and interpretation of the data. FB and KM drafted the initial manuscript and all authors provided input into revisions and approved the final draft. Individual authors take specific responsibility for the accuracy of data at the time of data collection from their country as follows: AA (Italy), ABJ (Slovenia), OB (Norway), BM and EM (Switzerland), AM and JM (Portugal), TV (Finland), AV (the Netherlands). FB, KM and SK advised on data collection and completion of the PAT. FB submitted the manuscript and is responsible for its overall content.

Funding Funding support for the coordination of this study was provided by the European Office of the WHO.

Competing interests None.

Provenance and peer review Not commissioned; externally peer reviewed.

Data sharing statement Unpublished data on the policies within each country will be available in the Final Technical Report produced by this project. For further details contact FB at fiona.bull@uwa.edu.au or view www.euro.who.int/hepapat

REFERENCES

- 1 Lozano R, Naghavi M, Foreman K, et al. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet 2012;380:2095–128.
- 2 World Health Organization. *Global Status Report on non communicable disease* 2010. Geneva: World Health Organization, 2011.
- 3 Lee I-M, Shiroma EJ, Lobelo F, et al. Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. Lancet 2012;380:219–29.
- 4 Lim SS, Vos T, Flaxman AD, et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet 2012;380:2224–60.
- 5 World Health Organisation. *Global strategy on diet, physical activity and health*. Geneva: World Health Organisation, 2004.
- 6 Bull F, Shepherd R, Pratt M, et al. Implementing national population based action on physical activity—challenges for action and opportunities for international collaboration. Int J Health Promot Educ 2006;13:43–9.

- 7 Bull FC. Global advocacy for physical activity-development and progress of the Toronto charter for physical activity: a global call for action. *Res Exerc Epidemiol* 2011;13:1–12.
- 8 Bornstein DB, Pate RR, Pratt M, *et al.* A review of the national physical activity plans of six countries. *J Phys Activ Health* 2009;6(Suppl 2):S245–64.
- 9 Bellew B, Schoeppe S, Bull F, et al. The rise and fall of Australian physical activity policy 1996–2006: a national review framed in an international context. Aust N Z Health Policy 2008;5:18.
- 10 United Nations General Assembly. *Political declaration of the high-level meeting of the general assembly on the prevention and control of non-communicable diseases*. United Nations, 2011.
- 11 World Health Organization. Global action plan 2013–2020 for the prevention and control of noncommunicable diseases [Resolution WHA66.10]. Geneva: World Health Organization, 2013.
- 12 Martin BW, Kahlmeier S, Racioppi F, et al. Evidence-based physical activity promotion-HEPA Europe, the European network for the promotion of health-enhancing physical activity. J Public Health 2006;14:53–7.
- 13 Bull F, Milton K, Kahlmeier S. Health enhancing physical activity (HEPA) policy audit tool2011 October 1 2013. http://www.euro.who.int/hepapat
- 14 Bull F, Milton K, Kahlmeier S. National Policy Approaches to Promoting Physical Activity: Seven Case Studies from Europe. Final Technical Report. The School of Population Health, The University of Western Australia, March 2014. ISBN 978-1-74052-283-0
- 15 Bull F, Milton K, Kahlmeier S. National policy on physical activity: the development of a Policy Audit Tool (PAT). *J Phys Activ Health* 2014;11:233–40.
- 16 Hsieh H-F, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res* 2005;15:1277–88.
- 17 Directorate of Health. *The Action Plan on Physical Activity 2005–2009 working together for physical activity*. Norway: Norweigan Government, 2005.
- 18 Ministry of Education. Valtioneuvoston periaatepäätös liikunnan edistämisen linjoista (Governmental resolution on enhancing sports and exercise). Helsinki: Finnish Government, 2010.
- 19 Ministry of Health. *National health enhancing physical activity programme* 2007–2012. Ljubljana: Government of Slovenia, 2007.
- 20 Ministry of Health. National programme on diet and physical activity (Nationales Programm Ernährung und Bewegung) 2008–2012. Bern: Government of Swizterland, 2008.
- 21 Ministry of Health Welfare and Sport (VWS) and Ministry of Education Culture and Science (OCW). Beleidskader Sport Bewegen en Onderwijs (Sport, Physical Activity and Education). Government of The Netherlands, 2008.
- 22 Directorate-General of Health. National health plan 2004–2010. In: Health Mo, ed. Lisbon: Government of Portugal, 2004:101–112.
- 23 Government of Italy. Documento programmatico "Guadagnare Salute" ("Gaining Health" Programme) (Prime Minister Decree—04/05/2007) 2007.
- 24 Schweizerisches Zivilgesetzbuch (ZGB) [In English: Swiss Civil Code] Stat. Article 699. (December 1907).
- 25 World Health Organisation. *Global guidelines on physical activity for health*. Geneva: World Health Organisation, 2010.
- 26 Wakefield MA, Loken B, Hornik RC. Use of mass media campaigns to change health behaviour. *Lancet* 2010;376:1261–71.
- 27 Rasmussen I, Grindheim J, Jorde B. Synopsis of the evaluation of the action plan to promote physical activity 2005–2009. Norway. Andvord Grafisk AS; 2011.
- 28 Bull FC, Bellew B, Schöppe S, et al. Developments in National Physical Activity Policy: an international review and recommendations towards better practice. J Sci Med Sport 2004;7Suppl 1):93–104.
- 29 Daugbjerg SB, Kahlmeier S, Racioppi F, et al. Promotion of physical activity in the European region: content analysis of 27 national policy documents. J Phys Activ Health 2009;6:805–17.
- 30 Hallal PC, Andersen LB, Bull FC, et al. Global Physical Activity Levels: surveillance progress, pitfalls, and prospects. Lancet 2012;380:247–57.
- 31 Leavy JE, Bull FC, Rosenberg M, *et al.* Physical activity mass media campaigns and their evaluation: a systematic review of the literature 2003–2010. *Health Educ Res* 2011;26:1060–85.
- 32 Bauman A, Madill J, Craig CL, *et al*. ParticipACTION: this mouse roared, but did it get the cheese? *Can J Public Health* 2004;95(Suppl 2):S14–19.
- 33 Craig CL, Bauman A, Gauvin L, *et al*. ParticipACTION: a mass media campaign targeting parents of inactive children; knowledge, saliency, and trialing behaviours. *Int J Behav Nutr Phys Activ* 2009;6:88.
- 34 Brownson RC, Colditz GA, Proctor EK. *Dissemination and implementation research in health: translating science to practice.* Oxford University Press, 2012.
- 35 Brownson RC, Royer C, Ewing R, *et al.* Researchers and policymakers: travelers in parallel universes. *Am J Prev Med* 2006;30:164–72.
- 36 Gamez R, Parra D, Pratt M, *et al.* Muevete Bogota: promoting physical activity with a network of partner companies. *Promot Educ* 2006;13:138–43.
- 37 Bull FC, Bauman AE. Physical inactivity: the "Cinderella" risk factor for noncommunicable disease prevention. J Health Commun 2011;16(Suppl 2):13–26.
- 38 Kohl HW, Craig CL, Lambert EV, et al. The pandemic of physical inactivity: global action for public health. Lancet 2012;380:294–305.
- 39 Butland B, Jebb S, Kopelman P, *et al. Foresight: tackling obesities—future choices. Project report.* 2nd edn. London: Government Office for Science, 2007.



Turning the tide: national policy approaches to increasing physical activity in seven European countries

Fiona Bull, Karen Milton, Sonja Kahlmeier, et al.

Br J Sports Med published online March 28, 2014 doi: 10.1136/bjsports-2013-093200

Updated information and services can be found at: http://bjsm.bmj.com/content/early/2014/03/28/bjsports-2013-093200.full.html

7	hasa	incl	ludo.
I	11626	11101	uue.

References	This article cites 21 articles, 2 of which can be accessed free at: http://bjsm.bmj.com/content/early/2014/03/28/bjsports-2013-093200.full.html#ref-list-1
P <p< th=""><th>Published online March 28, 2014 in advance of the print journal.</th></p<>	Published online March 28, 2014 in advance of the print journal.
Email alerting service	Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

Advance online articles have been peer reviewed, accepted for publication, edited and typeset, but have not not yet appeared in the paper journal. Advance online articles are citable and establish publication priority; they are indexed by PubMed from initial publication. Citations to Advance online articles must include the digital object identifier (DOIs) and date of initial publication.

To request permissions go to: http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to: http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to: http://group.bmj.com/subscribe/