Mainstreaming OSH into Education: Towards a Culture of Prevention

Report of an Interagency Conference
November 6-8, 2012, Turin, Italy

A Joint Initiative of
European Network for Education & Training on Occupational Safety & Health (ENETOSH)
European Agency for Safety and Health at Work (EU-OSHA)
International Labour Organization (ILO)
International Social Security Administration (ISSA)
National Institute of Occupational Safety & Health (NIOSH)

Acknowledgements

Background & Rationale

Developed countries have been integrating occupational safety and health (OSH) concepts in their school curricula for several years. In the primary grades, these curricula focus on risk education, i.e. training children to not only spot hazards but also to take the necessary steps to avoid them. In the secondary grades, the curricula are directed more specifically at preparing the child for work life once s/he reaches the minimum age for employment. Sensitizing children to health and safety at work is not only about giving young people skills and knowledge to help them keep themselves safe when start working, it is also seen as an important element toward the goal of building a "prevention culture" for the future. Taking into account globalization and the increasing significance of the migrant workforce, a variety of Member States of the European Union, the United States, Canada, Republic of Korea, and other developed countries are increasingly seeing the importance of supporting a global effort to promote a culture of prevention.

In contrast few, if any, developing countries have such curricula, despite the fact that they are faced with child labor and spiraling youth unemployment. In these countries, ILO has observed that many children drop out of school to work about age 11 and are entering the workplace with virtually no awareness of work risks, rights or responsibilities. Many then become trapped into doing hazardous tasks or working under hazardous conditions. Child labor and youth employment projects, intent on (respectively) getting children out of or into work, tend to give only peripheral attention to issues of occupational safety and health.

In an effort to address this gap, the above agencies embarked on the following plan:
> First, to identify and compile existing curricula and other tools, as well as innovative approaches (e.g. the "whole school approach") for sensitizing children of different ages to safety concepts and preparing them for their future role as workers;

> Second, to organize a workshop to discuss the 'state of the art' of mainstreaming OSH into education and to share practical experience in using these tools and approaches. Where desired, participants of this workshop would have an opportunity to create cross-global partnerships for implementing these tools and approaches;

> Third, to create a basic or "international" OSH curriculum package, based on the advice and tools discussed in the workshop, that could be adapted to different countries and different environments (e.g. formal and non-formal education, youth clubs);

> Fourth, testing this package and mentoring its use in 2-4 developing countries which have expressed strong interest in adopting such a program.

The following report describes the discussions and outcome of the interagency workshop that was held 6-8 November 2012 at the ILO International Training Centre in Turin, Italy.

Overview of the workshop

This international exchange of experiences aimed to identify good practices which can be emulated as well as factors inhibiting their uptake. It explored how to make practical, low-cost adaptations that would be suitable for low income countries and address current barriers; these low-cost solutions may well be of interest to high income countries due to the current economic crisis.

The workshop brought together participants from 26 countries, each of whom was a specialist in some aspect of preparing youth for safe work. They included:

- individuals/agencies which have pioneered methods of reaching children and youth with an OSH message through schools and other educational programmes

- representatives from countries, particularly EU accession countries and others with significant rates of youth unemployment or child labor, which would like to learn more about how to prepare youth for safe working life

- educators, representatives of ministries of education, and national/European federations of teachers' unions

- representatives from countries where ILO has projects and there is potential for partnering or pilot-testing

- countries which have well-established school OSH curricula and are interested in sharing, adapting and/or mentoring the countries interested in applying it.

Such a wide range of experience and expertise was made possible by holding the workshop back-to-back with the regular meeting of the European Network on Education & Training on Occupational Safety and Health (ENETOSH) and due to the support of the Occupational Safety and Health Administration of the European Union (EU-OSHA), the U.S. National Institute for Occupational Safety and Health, and two ILO departments: the International Programme on the Elimination of Child Labour (IPEC) and the Youth Employment Programme. The above agencies, along with the International Social Security Association (ISSA) and the ILO SafeWork department, worked together for approximately one year in planning and organizing the event.

The next section outlines the agenda of the meeting, followed by short summaries of the discussions:

Workshop agenda

SESSION I. (Tuesday morning, 6ᵗʰ November)		
Time	**Topic**	**Speakers**
09:00	**Getting to know each other - Appreciative Inquiry** Every participant in this workshop has something interesting to share. Before learning from each other, we need to start off by learning about each other. The technique of "Appreciative inquiry" (AI) will help us get acquainted.	Ulrike Bollmann, DGUV/ENETOSH
09:45	**Official welcome to the workshop**	Giselle Mitton & Laura Biscaro, ITC/ILO Workshop Managers
10:00	**Overview of the meeting** This is an introduction to the workshop which explains in more detail the purpose, what we hope to achieve by the end, and the style in which it will be conducted.	Susan Gunn, ILO/IPEC Andrea Okun, NIOSH, US
10:20 (includes break)	**"Hot spots"! Education and training on OSH in your country: Where we are and what we would like to achieve by 2020** Each country is different. In small groups we will exchange and discuss the current situation in our countries (e.g. how schools are preparing young people for a safe and productive work-life, what are the barriers and challenges to integrate OSH into the education system). The group work will end up in a "picture" (future scenario) describing what we will achieve by 2020 in Europe, US and the Asian region.	*Facilitators*: Ulrike Bollmann, DGUV/ENETOSH Leslie Nickels, NIOSH, US
11:30	**Global perspectives on OSH in education** There is a growing concern and sense of urgency about whether young people will find safe and decent work. Key international agencies and some governments are responding with robust policies and laws that target and protect children and youth.	*Facilitator*: Susan Gunn, ILO/IPEC *Speakers*: Marie Prieto, ILO Youth Employment (Video) Jutta Busch, ISSA/DGUV Susan Gunn, ILO/IPEC *Responders*: Marwa Ximminies, MOL, Jamaica Sengül Cosar, MoLSS, Turkey

SESSION II. (Tuesday afternoon, 6th November)		
Time	**Topic**	**Speakers**
13:30	**The curriculum approach - the North American experience** Presentation of some excellent tools being used in schools in North America to sensitize youth to risks in the workplace and outside.	*Presenters*: Susan Boychuk, Ontario MOL, Canada Stephen Horvath, CCOSH, Canada Andrea Okun, NIOSH, US
14:30	**Hazard Mapping exercise**	Robin Dewey, LOHP/UC, US
15:15	Break	
15:45	**Experiences in implementing the curriculum approach: SWOT analysis** During this discussion, we will hear about actual experiences in using the curriculum approach on the ground. The panelists explain what they have found to be effective in overcoming resistance and in promoting attitude change. The group will try to come to consensus on some key concepts that should be considered whenever the curriculum approach is used anywhere in the world.	*Facilitator*: Leslie Nickels, NIOSH, US *Panelists*: Susanne Ulk, DUS, Denmark Lester Claravall, DOL-Oklahoma, US Peter Paulus, Leuphana University, Germany Nikola Georgiev, MOSHA, Macedonia
16:45	**Experiences Integrating OSH into International Technical Assistance Programs** Shifting now to the international level, development agencies have encountered challenges in changing organizational culture and in mainstreaming OSH into education priorities. This panel The presenter will share his view on what may be effective approaches to raising the priority of health and safety of children and young workers.	*Presenter*: Richard Rinehart, USAID, US
17:15	First day wrap-up	Ulrike Craes, BGW, Germany & Davorin Kacian University College of Applied Sciences for Safety, Croatia

SESSION III. (Wednesday morning, 7th November)		
Time	**Topic**	**Speakers**
09:00	**Networking exercise**	Ulrike Bollmann, DGUV/ENETOSH
09:30	**Networking – a driver towards mainstreaming OSH into education in Europe** Are you a networker? Are you personally involved in networking? Starting from the personal experience of the participants the resource networking for the integration of OSH into education will be explored. The example ENETOSH will be presented. Questions will be asked regarding the challenges we are facing in the area of education and training in OSH.	Ulrike Bollmann, DGUV/ENETOSH
10:00	**The whole school approach: Health and safety as a promoter of educational quality / the quality of educational establishments** This session presents the "good healthy school" concept from Germany, representing a well-developed and nation-wide recognized example for a holistic approach to mainstreaming OSH into education.	Peter Paulus, Leuphana University, Germany
10:45	Break	
11:15	**How to reach young people? "Speak up – stay safe" – an age appropriate approach to health and safety** Using social media and new technology is a good way to excite the interest of young people. The leading concept "Speak up–stay safe" developed and promoted by the British Safety Council, UK, will be presented. Concrete exercises will be carried out to enable the participants to make their own experience.	Matthew Holder, BSC, UK
11:45	**The evidence based approach: Implementing evidence-based-practices (EBP) on health and safety education in schools** The recent discussion in Europe about the efficiency of education and training on OSH is dominated by the evidence based approach. The presentation will refer to some factors that affect the diffusion/implementation process of evidence-based-practices (EBP) in Finnish school settings.	Mikko Nykänen, FIOH, Finland

SESSION IV. (Wednesday afternoon, 7th November)		
Time	**Topic**	**Speakers**
13:30	**EU-OSHA's campaigns and materials – a success story** This session reports on the project "Mainstreaming OSH into education" of EU-OSHA, the results of EU-OSHA's campaign for youth in 2006 and the example of "Napo for teachers".	Marta Urrutia, EU-OSHA
14:30	**Reaching youth outside of school: How deal with diversity?** This session looks at how we can reach out to some groups of youth who have special needs or who are not easy to contact. The panelists will give a brief statement followed by a discussion that shall cover the following issues: 1. Reaching youth through the workplace: "Wise up to Work" 2. Working safe on the workfloor: Reaching vulnerable groups 3. Reaching youth with disabilities	*Facilitator*: Jutta Busch, ISSA/DGUV *Panel*: Jill Joyce, IOSH, UK Annick Starren, TNO, The Netherlands Robin Dewey, LOHP/UC, US
15:30	Break	
16:00	**Official Greeting by the European Agency for Safety and Health at Work (EU-OSHA) (Video)**	Sarah Copsey, EU-OSHA
16:15	**Get ready! Beginning to see similarities** This session looks at what are emerging as common concerns, themes, and problems. It explores the question of whether there are some "essential" elements that all programs and strategies should include – whether at the policy level or at the practical level.	*Facilitator*: Leslie Nickels, NIOSH, US
17:15	Feedback	Ulrike Craes, BGW, Germany & Davorin Kacian University College of Applied Sciences for Safety, Croatia

SESSION V. (Thursday morning, 8th November)		

SESSION V. (Thursday morning, 8th November)		
Time	**Topic**	**Speakers**
09:15	**The strategic approach to mainstreaming OSH into education: Singapore's Pre-Employment Training Initiative** The Workplace Safety and Health (WSH) Council and Ministry of Manpower (MOM) released the WSH 2018 Strategy as the national guide to achieve sustainable improvements in WSH standards and performance in Singapore. One key strategic approach towards achieving the building of strong WSH capabilities is through the Pre-Employment Training (PET) Initiative where the WSHC and MOM engage educational institutions to introduce WSH early to the younger generation.	Yew Kwong CHAN, Workplace Safety and Health Council, Singapore
09:45	**An international OSH network for OIC countries: OIC-OSHNET** OIC-OSHNET is under the framework of Vocational Education and Training Program for Islamic Countries (OIC-VET). It was proposed by the Statistical Economic and Social Research and Training Centre for Islamic Countries (SESRIC) in order to establish closer cooperation for sharing knowledge, experience and new technologies, to conduct joint research and training, and to organize new initiatives, projects and programs in the field of Occupational Safety and Health in the OIC Member Countries.	Ahmet Serdar Sevinc, MOLSS, Turkey
10:15	**Hong Kong experience in promoting youth education in OSH** Children are the future of our society. Safety and health of tomorrow's workforce starts with the occupational safety and health (OSH) education today. The integration of OSH into education system has been recognized as an important strategy on cultivating the safety culture. This paper shares the experience of the Occupational Safety and Health Council (OSHC) in promoting youth OSH education in Hong Kong.	Wah-Shing TANG, OSHC, Hong Kong
10:45	Break	
11:00	**Experiences in adapting materials – an example from Egypt** An overview of three workshops organized by the Integrated Care Society in Egypt on Safety and Occupational Health for Young Workers will be presented. The workshops aimed at testing the NIOSH curriculum in order to adapt and tailor it for Egyptian labor market.	Rick Rinehart, USAID, US
11:30	**Developing partnerships for mainstreaming OSH into education** Looking back at the pictures (future scenarios) developed by the groups on Tuesday morning, we would like to ask, what we have achieved during the workshop, which commitments we have reached in moving forward and how we are going to proceed on in the future.	*Facilitators*: Matthew Holder, BSC, UK & Ulrike Bollmann, DGUV/ENETOSH *Panelists*: Steven Horvath, CCOSH, Canada Marie-Joelle Antoine, ISSA/INRS

13:00	Evaluation	

SESSION VI. (Thursday afternoon, 8ᵗʰ November)

Time	Topic	Speakers
14:00	**Topic: First steps towards a cross-global partnership** "Mentors" and their "apprentices" meet bilateral to make a work plan. They agree on objectives they would like to achieve, activities they plan to undertake and first three practical steps.	*Facilitators*: Susan Gunn, ILO – IPEC Lester Claravall, DOL-Oklahoma, US Stephen Horvath, CCOSH, Canada
16:00	End of the workshop	

Session I
Tuesday morning: November 6, 2012

1.1 Getting to know each other – Appreciative Inquiry Exercise (Ulrike Bollmann)
The opening session was based on the premise that every participant in this workshop had something interesting to share. Therefore before starting to learn <u>from</u> each other, the participants needed to learn <u>about</u> each other. The technique of "appreciative inquiry" was used for this. Divided first into pairs, the participants shared personal stories about what got them interested in occupational safety and health (OSH) and prevention, and then expanded into larger groups to further expand their connections.

1.2 Official welcome by the ILO International Training Centre (Giselle Mitton and Laura Biscaro, event managers)

1.3 Overview of the Meeting (Susan Gunn and Andrea Okun)
This presentation provided more detail on the purpose, style, and intended outputs of the workshop.

Susan Gunn introduced the members of the planning committee, reviewed the logistics for the following days, and described the background for the workshop. She explained that the level of experience and materials available in the countries represented in this room are not available in developing countries. Therefore, it is a matter of common interest to exchange ideas and to develop partnerships between those that have developed interesting and innovative resources and those who want to prepare their youth for the future but who have no such opportunities.

Andrea outlined three areas relevant to mainstreaming OSH into Education around which the discussions would be held:
(1) how best to integrate OSH into both primary and secondary education;
(2) what are the core competencies all youth need to obtain with respect to OSH; and
(3) what commonalities are there with respect to content, delivery, and implementation.
She also noted that we want to capture lessons learned as to what has worked and what hasn't worked. Finally, we want to develop linkages and partnerships. We hope that we all leave this workshop having made 1-2 commitments of actions we can take and partnerships can maintain in support of this important work.

In response, Rick Rinehart expressed a hope that we give priority to discussing how we integrate the materials and curriculum into developing countries.

1.4 "Hot Spots"! Education and training on OSH in your country: Where we are and what we would like to achieve by 2020 (Ulrike Bollmann and Leslie Nickels)
Small groups met by country/region to discuss the current state of affairs in terms of OSH and education for youth. They then brainstormed what a future scenario for a utopian country would look like in regards to OSH. Finally, each group created a picture depicting their future utopian country. During the report back, small groups presented summary words that described their utopian country. These included:

- An OSH in education program that is comprehensive, inclusive, and offers opportunities

- A scenario that promotes safety for all persons, that involves families, and provides a safe nation
- Teachers who are gung ho to present OSH education; there are outcomes that you can measure – surveillance so you can see it has made a difference
- OSH is a seamless concept, there is well-being at work
- There are lots of possibilities and resources

1.5 Global Perspectives on OSH in Education (Maria Prieto, Jutta Busch, Susan Gunn)

Maria Prieto of the ILO Youth Employment Programme gave a global perspective on the issues facing youth today. The ILO looks at ages 15-24 when it considers youth employment. However, this changes according to national legislation. Global unemployment for youth has reached unprecedented proportions -- 12.7% of global youth are unemployed. There are 228 million young people living under $2 per day and large numbers of youth are not participating in any education, employment or training. Contributing factors to youth unemployment include the low quality of jobs, slow and uncertain transitions from school to work, and discouragement and detachment from labor markets. Although the patterns of youth employment differ from region to region, in general, the quality of jobs available for youth is declining. Many work in the informal economy or in temporary jobs. A disproportionate number are low-paid. This is the first generation where youth in the developing economies feel they will be worse off than their parents.

Youth employment was a focal issue of the 2012 International Labour Conference. In preparation for the Conference, the ILO organized forums to collect the views of young people, youth organizations, workers' organizations and employers' organizations – 42 national and 4 regional events took place with more than 5,000 participants. Themes discussed during these events included: the need for 500 million more jobs; the education and training needed for work; how to facilitate the job search and transitions to decent jobs; how to ensure job quality and workers' rights; what is the role of entrepreneurship and social enterprises; and how to ensure participation and empowerment of youth.

During the Conference, the Committee on Youth Employment developed a resolution – "A Call for Action on Youth Employment". This resolution has five policy themes around which the ILO was challenged to provide leadership.   These are:
1) Employment and economic and sectoral policies (combining macro and microeconomic policies so they work in tandem to develop productive employment opportunities to absorb the skills and talent of young people).
2) Employability – Education, Training and Skills, and the School to Work Transition (increasing the relevance and quality of education, training and skills development).
3) Labor Market Policies (need national educational plans that correspond to the demands of the national labor markets).
4) Youth Entrepreneurship and Self Employment (including training and access to financial and non-financial services).
5) Rights for Young People (basic rights/wages, working conditions and workers' rights/contractual arrangements, other)

Several participants offered comments about the economic factors that are contributing to youth unemployment, such as the issue of older people continuing to work and filling jobs that would normally be available to younger people.

Jutta Busch of the International Social Security Administration presented the landmark agreements that provide a justification and framework for building a culture of prevention through education. She explained that, according to the WHO, safety is considered an integral aspect of health, and education is one of the primary means of developing the potential of individuals. This was highlighted in the Seoul Declaration which encouraged continuous measures to create and enhance a culture of prevention and recognized the importance of education and training in prevention. It targeted both employers and workers.

One of the key resolutions of the ISSA Section on Education and Training for Prevention was the Quebec Protocol (2003). It focussed on the integration of occupational safety and health in vocational training and defined the principles and requirements regarding those responsible for both training and prevention, and cooperation among them and other partners in order to integrate specific measures and to have working environments that conform to general regulations and norms.

The Berlin Declaration (2006) proposed a strategy for occupational safety and health from "school to work." It focussed on three groups: school children, young people in vocational training, and young and new employees in companies with the aim of raising their awareness of risks and enabling them to prevent risks.

The aim of the Lisbon Charter (2009) was to foster a culture of occupational risk prevention among young people from their very first contact with the world of work and laid out a program of introduction, support and training to achieve this. The background for the Lisbon Charter was a concern about the frequency of workplace accidents which is significantly higher among employees under 25 than amongst older employees. It was noted that most accidents occur during the first few months of work and that young people in training or at the start of their professional careers often fail to correctly assess risk in the workplace and to respond appropriately due to their inexperience and lack of knowledge. This applies to almost every country over the world. The Lisbon Charter targets those responsible for new employees in companies (employers, training supervisors), in training and educational institutions (training supervisors, school teachers), and in (non-profit) organizations (unions, supervisory bodies).

The ISSA Section on Education and Training for Prevention has committed itself to helping all citizens, and in particular all workers, to become more aware of the risks they face and to help build the capacity of workers to participate in risk prevention. It is currently promotinh these agreements and nurturing partnerships with ENETOSH and the Korea Occupational Safety and Health Association (KOSHA). The Symposium on Culture of Prevention will be held in Helsinki September 25-27, 2013 -- organizers are KOSHA, INRS, FIOH and ISSA. A World Conference on Safety and Health at Work will be held in August 2014 in Frankfurt.

Marva Ximinnies, Ministry of Labour, Jamaica offered a practical example of how a country responds to international agreements such as these. She noted that Jamaica has ratified the two major ILO child labour Conventions, C138 and C182, which stipulate that children above the legal age for work (usually 15) are still protected from doing hazardous work until they reach 18. Jamaica also recently signed the optional protocols on armed conflict and on the sale of children, prostitution and trafficking. National

compulsory education for ages 3-18 was recently approved and there is tuition-free education (although there are other fees paid by parents). There is a national action plan aimed at developing a world-class education in Jamaica. This includes a national curriculum policy and national sector plans, which provide the framework for education. Several initiatives have been established by the Ministry of Education toward these goals. They also have a national parenting policy as a way to ensure the involvement of parents.

Youth development in Jamaica is implemented through several different agencies – there is no central location. A national youth survey was conducted which found that more youth are attempting to enter the world of work but are unable to find work. More than 50% of youth are living below the poverty level. Several initiatives to protect youth via legislation have been launched. They are looking for ways to use what Jamaica is known for (Reggae, etc.) to promote youth employment and OSH.

Sengul Cosar, Ministry of Labour & Social Security, Turkey explained that in Turkey, most youth are working in the agricultural sector and in micro-enterprises. Turkey has ratified ILO Convention 182 and was one of the first countries in the world to take steps to deal with the problem of child labour and youth engaged in hazardous work. They are now trying to eliminate the worst forms of child labor through a national programme and are also raising awareness regarding child labor throughout the country. They are also trying to initiate vocational training on a wide scale to prepare youth for modern jobs.

Session II
Tuesday afternoon: November 6, 2012

2.1 The Curriculum Approach: the North American experience

Steve Horvath of the Canadian Centre for Occupational Safety and Health explained that Canada has been developing new technologies for reaching youth. Youth have a lot of trouble discerning what is credible information and what is not. Getting OSH into schools has been a challenge for Canada. There was a disconnect between the ministries of education and labor in terms of who was responsible for this area. They realized that in order to integrate OSH into the curriculum they would have to provide the tools to do so.

They were able to get the necessary legislation into a few key provinces and, on the basis of that, were then able to get OSH into the curriculum in those provinces. It helped that they started with data that youth are at high risk.

These initial efforts can be seen as pilots; the next step is to use this same approach in other provinces.

Sue Boychuk of the Provincial Ministry of Labour, Ontario Canada, described how they have been able to embed health and safety into the Ontario school curriculum in over 800 publically funded secondary

schools, to influence the standards set by the Ministry of Education at the national level, to establish a network of young worker leaders, to ensure enforcement and to investigate youth injury reports.

How did our efforts get started? The initiative started in1996 after the work-related death of a 19 year old. The ministries of labor and education came together to embed safety education into the school curriculum. 1999 was the first year that secondary school students began to get workplace health and safety education. From 2000 to the present, teachers have gotten free resources to teach safety. In over 80 different courses, it has been required to provide information, skills, and knowledge about OSH throughout Ontario's secondary curriculum. Their efforts have not been expensive to implement.

The Ministry of Labor in Ontario produced free resources to match the curriculum, entitled "Live Safe! Work Smart!" They prepared curriculum for Grades 9-12 for students in cooperative education/ experiential learning and for students with special learning needs. They also did a curriculum for elementary students. They are also providing training for teachers. (Check the website for information about their materials and projects: Livesafeworksafe.net.)

How did we get teachers to accept integrating safety into the provincial education curriculum? It took a high level of support in the beginning. We took what they were already doing and complemented it – nothing extra. It's worked because teachers get high quality free resources that are teacher friendly. We never assume we are done.

"Work Smart Campus" was developed and delivered for post-secondary students through an e-learning course which consists of 2-3 hours of health and safety leadership education. Now 10,000 Ontario post-secondary students are taking the WorkSmartCampus every year.

What are the results? fatalities are down 67% since 2,000 in the age group 15-19; other age groups decreased by only 36%. For those over age 55, the injury rates are up. 2004 was the last year there was a workplace death of a teenager.

We have a video contest going on right now. The top prize is $1,000 for a secondary student – all 12 provinces and territories run concurrent contests. There is also a Canada-wide contest for 18-24 year olds. Celebrity judges are brought in to do the final judging.

Andrea Okun, of the National Institute of Occupational Safety and Health in the U.S., explained how they have worked for a number of years to integrate health and safety into the US educational system.

So where we are now? We believe that this may be at a tipping point due to the growing importance of work readiness within the U.S. Wherever you look, some group is saying that we have to do something to make students work-ready. Our goal is to ensure that today's and tomorrow's workforce has the knowledge, skills, competencies and behaviors to succeed in today's and tomorrow's workplace.

Currently, there are demographic shifts that warrant action. Between 2000-2010 in the U.S., workers aged 35-44 decreased by 10% and those between 16–24 increased by 15%. A significant number of workers will be retiring over the next 10 years. We are also in an increasingly complex, knowledge- and technology-based, global economy. It is estimated that by 2015, about 85% of new U.S. jobs will

require more than high school education. These demographic and economic changes impact workers, workplaces, and U.S. competitiveness.

American CEOs are saying that education and workforce preparedness are important policy issues. One of the important emerging content areas not typically emphasized in school is making appropriate choices concerning health and wellness. This may open an avenue for integrating OSH into curriculum.

The NIOSH *Youth@Work: Talking Safety* curriculum is based on core competencies for OSH – the knowledge, skills, abilities and behaviors that contribute to an employee's job success. Students should be able to:
1. Recognize that people can, and do, get injured at work, with young people injured at higher rates. These injuries can forever change their lives and those of their family and friends.
2. Recognize that workplace injuries are preventable and predictable, with known and identifiable causes.
3. Analyze workplaces and describe the hazards found on typical teen job sites.
4. Discuss steps to protect themselves and their co-workers from workplace hazards.
5. Identify emergencies at work and determine effective strategies for responding.
6. Describe employers' obligations to provide a safe and healthy workplace, identify the special rights young workers have under the law, and reflect on their responsibilities on the job.
7. Demonstrate how to ask questions and be assertive if feeling threatened or unsafe at work.

One difficulty NIOSH has experienced is in keeping the U.S. curriculum current given that there are 53 versions, one for each state and territory of the US due to state-specific OSH and child labor regulations (the curriculum does provide the federal rules too). She indicated that there is not one specific curriculum that is best in all situations. There are a lot of good curricula out there. What is important is that the curricula provide students with the core OSH competencies that will help keep them safe as they enter the workforce

Robin Dewey of the LOHP University of California, conducted one activity from the *Talking Safety* curriculum -- hazard mapping. Participants worked in small groups to create "hazard maps" of a selected workplace. The groups indicated on their drawing where the safety, chemical, biological and other health hazards are located in that workplace.

2.2 Experiences in implementing the curriculum approach

Susanne Ulk, a consultant to the Danish Teacher Trade Unions in Denmark, has been focusing on school safety at the primary grade level. For Denmark, OSH legislation and curriculum are a high priority. Teaching OSH is mandatory in nearly all school grades. Teaching of OSH is incorporated in a number of primary school subjects. It must be integrated, not an add-on. There are excellent teaching materials that are not too expensive. It has been important that there is support from the Ministry of Education and other core persons at all levels.

Nonetheless. there are many barriers to including OSH into the school curriculum. For example, teachers have a lot of other demands on them and so it is hard to add OSH. OSH may be neglected and drowned out by a multitude of other tasks and subjects. It is a challenge to get the teachers to realize that you can fulfill the ordinary subject requirements and OSH requirements at the same time. Teachers and students are evaluated on general competencies and not necessarily on OSH competencies.

There are also success factors. First, there are inspiring and excellent teaching materials that are not too expensive, materials that are updated and easy to find (web portal: ungmedjob.dk). Second, there are motivated and well-educated teachers. Third, there is co-operation at all levels between OSH professionals and educational professionals, and there are dedicated core persons at all levels. There are many stakeholders involved in the issue who have different agendas, including pupils, parents, teachers, school managers, representatives from the social partners, representatives for the working environment authorities, and politicians.

Lester Claravall, from the Department of Labor in Oklahoma, U.S. described how their young worker health and safety efforts started. Like Ontario, it began with a tragedy – the death of a young person at work. A pilot program was started in one city and has now expanded.

The program developed a game to teach students about child labor laws and OSH. The Oklahoma version of the NIOSH *Talking Safety* curriculum is also being used. With the support of teachers in place, the Dept. of Education was approached to get their buy-in.

With support of the Dept. of Labor, outreach was conducted by participating in conferences. There was a desire to get social media involved so a video contest was developed, modeled on California's contest. Eventually, a number of businesses provided support to the campaign. Currently, there are partners in place but the future is uncertain Ssince this is political and administrations change, we could lose the support. Strengths are the partnerships we have. Opportunities – our efforts are still a work in progress. Recommendations – start small, pilot with one school district, get cheer leaders to help you promote your efforts. They have also found it best to focus on career tech.

Peter Paulus, professor at Leuphana University, Germany. presented a program promoted in Germany called "MindMatters" which focuses on developing good schools through the promotion of mental health. It was developed in Australia and is now part of a bigger movement in Germany that takes a Whole School approach. MindMatters is a practice- and research-based resource to improve school quality through the promotion of mental health. MindMatters involves the whole school – pupils, principals, teaching and non-teaching staff, parents as well as the community around the school. It holds that mental health is a catalyst to improve education in general and health education in particular. First one has to define what is a quality school – what are the dimensions of quality? (basic conditions, school culture, leadership, management, cooperation with external partners, professionalism of teachers, teaching and learning, results and successes, quality management, etc.).

Mental health is important for learning (self-awareness, self-management, decision competence, etc.). Students see mental health as finding friends and being connected, no mobbing in their schools, being

able to cope with loss and grief, and learning to understand mental disorders in the school. An external evaluation of this effort is currently being conducted.

MindMatters is a resource, not a program. Every year they send out approximately 1,000 copies of the resource packet. Teachers use modules or parts of them – particularly when there is a problem. A strength is that it links physical health and mental health. A weakness is that they don't have strong support from the Ministry of Mental Health and they still need additional funding. Also there is a need to better address the stress of teachers.

Nikola Georgiev, from the Occupational Safety and Health Association (an NGO) of Macedonia, described how they spend a lot of energy on formal OSH education at the graduate level to develop OSH specialists. OSH education is only happening a little bit in vocational classrooms. The main reasons for the limited progress is: 1) lack of awareness (which they are addressing through training of trainers, media work), 2) overloaded curriculum , 3) lack of expertise in OSH education (which they are addressing through mainstreaming OSH in education as part of the strategy of the National OSH Council).

Discussion
One area of discussion was about the entry point for integrating health into schools. Several mentioned that they focus on the school principals because they have so much influence on the teachers and the school culture, and always approach the principal first. Lester pointed out that what they have found effective is connecting with schools through the work permit process.

Nuria Mancedo, University of Girona, Spain summarized the discussion as follows:
Strengths:
- Excellent teaching materials currently exist that are low cost, high quality, and appealing
- In many cases all levels are cooperating -- education, labor, health, parents
- There is teacher support
- If you can integrate OSH into educational outcomes, it shows the contribution to quality
- External evaluation is important
- Mental health supports education
- Facilitator role is important (train the trainers)
- Holistic approach works
Weaknesses:
- Competence assessment doesn't typically include OSH
- Voluntary basis - occasional use.
- Sometimes there is not support from the Education Ministry
Opportunities:
- Teachers used to use ICT
- Working together with Education and Labor Ministries
- Very strong partners
- Law enforcement
- If a risk assessment identifies some specific hazards, there are specific curricula available
Threats:

- o There are a lot of other demands
- o There are competing agendas
- o Time and budget restrictions
- o Changing political environment
- o Lack of awareness
- o Lack of expertise in OSH education
- o Principals have to promote the culture of prevention

2.3 Experiences in integrating OSH into international policy priorities

Rick Rinehart, USAID, spoke of new efforts being undertaken in connection with US Congress Public Law 109-95 – international assistance to highly vulnerable children – which are comprehensive, coordinated, effective and built on evidence-based research. A US Government "Action Plan on Children in Adversity" is soon to be launched. The priority objectives focus on building strong beginnings, putting family care first, protecting children from violence, etc. The supporting objectives include strengthening systems, promoting evidence based programs, and integration. The Action Plan seeks to align programs with the new science that tells us we must protect children, including from hazardous work. It places a strong emphasis on program integration, innovation and building diverse partnerships with and on behalf of children. There is engagement in a global platform of action to address problems at scale. There will be lots of resources in this area in the future.

Two examples in which OSH has been brought into international technical assistance programs are:

1) The US Dept. of Labor's "E-FACE project" in Ethiopia. The partners are World Vision Ethiopia, MEDA, and MCDP. It targets 20,000 children under 18, 7,000 households (mainly in the traditional textile industry), and small business owners. The project has used a six week, 18 hour curriculum called *Keep Safe*. The curriculum combines OSH learning with games and activities that focus on the following topics: Who are young workers? workplace rights and responsibilities, seven categories of hazards, assessing hazards, mitigating hazards, and other life skills. This OSH work is essentially a three-part intervention that seeks to improve working conditions and safety for young workers. Following their awareness sessions – *'Keep-Safe'* is used with youth and as introductory 'workshops' with business owners. We bring them together to negotiate minimum standards for work in the form of a code of conduct that both parties can agree to. From here, we support business owners to implement that code of conduct through a graduated incentive system we call the 'Step-Up' program which, if they are able to address hazards in their business, reduce young workers' hours and increase their salaries, they qualify for (a) value chain supports such as access to high end market actors and (b) business development services (e.g., trainings on business management). These include creation of voluntary savings and loan associations to help business owners organize, strengthen savings habits, and develop trust so they can access inputs through the group at wholesale prices. This can increase their productivity in the short term. At the same time we are now working with them to create hazard mitigation plans, including some initial resource support from MEDA in addressing the most pressing ergonomic and lighting hazards. The project is still in the early stages of implementation, having just finished the pilot, so it is too early to claim a significant impact yet.

The staff hired for the program are not OSH experts – they hail from the communities they operate in and know them well – which has helped them build rapport with business owners. They participated in a week-long training of trainers (TOT) session where they were exposed to the content and then had opportunities to lead each other through it. These community outreach workers are well-positioned to follow-up with business owners and youth after having developed relationships with them in workshops and classes.

The curriculum is rooted in earlier work we did with the PPIC-Work project in Egypt (www.ppic-work.org). There we had developed a whole toolkit for OSH interventions with business owners. Although we had negotiated a Code of Conduct with children, and had them draw pictures for a calendar for business owners, we had not developed substantive materials for children or made an effort to teach them as rigorously about the kinds of hazards, hazard mitigation, etc. So, what we wanted to do as soon as we learned about the new project was to develop youth-specific content – adapting it from our existing toolkit, but making it youth-focused, and context specific for the textile industry in Ethiopia. This was easy to do because the core of it is something that could be built upon all around the world. As we did in Ethiopia, we are hoping that over the life of the project we can get businesses to document local hazards and how they're being addressed in order to further enhance the teaching aids. Go to www.youth@meda.org for a copy of the curriculum.

2) The USAID example "Rwandan Youth Work Readiness Curriculum" being implemented by the Akazi Kanoze: Youth Livelihoods Project has seven modules of which one is on safety and health . This module includes such topics as health habits, hygiene and sanitation at work. The Rwandan OSH curriculum was adapted from the US-NIOSH *Talking Safety* curriculum. A group of program stakeholders and Akaze Kanozi staff then reviewed and revised the modules during a week-long workshop. This program is targeted at a junior secondary level although some have an education level below grade 6 and it is used as well in our catch up program.

The training is provided, in Rwanda at least, by trainers who work for local agencies that we call Implementing Partners. Sometimes these partners are private businesses—for example, mechanics or MFIs—mostly they are NGOs. They receive 10 days of training of trainers on the whole curriculum at the outset, and subsequent site visits and follow up. The curriculum has been adopted in Rwanda by the Ministry of Education to be offered in all vocational schools. Guyana, Yemen, Macedonia and Mali have been introduced to the module. One of the contractors is EDC. Contact cjanke@edc.org for more information.

The interest in including it is that the unsafe working conditions that exist in most of the places where we work, generally, and for disadvantaged youth in particular, are obviously and highly unsafe. We feel it is our responsibility to offer this, though to be honest, in the absence of a legal framework by which these concepts are reinforced, they have only a minor impact (youth generally prefer to be working, even in an unsafe environment, than not to be working,). We also have a module on rights and responsibilities, in which the right to a safe workplace is usually also described. Again, we feel it is necessary to inform youth of these things, even though the reality is, such rights are most often overlooked.

Discussion: It is important to bring OSH into all of the big development child labor projects that are being funded by the US government and other donors. It needs to be integrated into programs, not

implemented in isolation. It needs to be low-cost and quickly deployed as these activities are typically just a small piece of the larger project. From the donor perspective, it is helpful to have defined core competencies. This also creates a starting point.

From a bilateral donor perspective, OSH curricula should:
- Be flexible enough to be designed for or adapted to the local context.
- Fit within a broader integrated program approach – not implemented in isolation.
- Be low-cost and quickly deployed as these activities are typically just a small piece of larger programs.
- Be demand-driven, from the program, the government, or the target population, and should reflect their needs.

An established framework of basic core OSH competencies would be useful for multiple reasons:
- As a donor, it would help to describe OSH training expectations and ensure that all implementing organizations have the same understanding.
- It would provide projects a starting point, without re-inventing the wheel, and give the flexibility to adapt the approach and message to specific project contexts.
- It would provide a common understanding between donors, projects, and host country governments.

The *U.S. Action Plan on Children in Adversity* may help open windows for bringing OSH into child labor and youth development projects, and as part of holistic and integrated packages – although probably not as a central objective. The best entry points within USAID are likely through youth-funded activities that overlap with the Youth Policy and Action Plan on Children in Adversity. The USDOL Office of Child Labor, Forced Labor and Human Trafficking encourages partnerships among OSH experts, its office, and program implementers. For example, there may be future opportunities for NIOSH or other specialized agencies to assist the Office in formulating language for upcoming solicitations.

Session III
November 7, 2012, morning

3.1 Networking – a driver towards mainstreaming OSH into education in Europe (Ulrike Bollman)

Ulrike Bollman returned to Tuesday's Networking Exercise and the participants' drawings to have them explain their vision of a utopian country that supports the integration of OSH into education. She asked, "How do we inflame people to care about integrating OSH into education?" A lot of you have a passion about this topic, please, take your passion home and try to inflame others. How much structure does networking need? Look for bureaucracy and a little bit of control. Maybe the key is to mushroom our institutions. How does a network really work? What keeps the network together? The emotional glue is often underestimated. The emotional things are the important things. What about mainstreaming? It's like working on a stone. OSH should be an integral part of all activities.

ENETOSH has existed since 2005 and is now in 65 countries. ENETOSH used the concept of ambassadors. Hopefully, we will have NIOSH and ILO as partners. It is important to build a bridge between OSH and education. Another goal is to increase expertise on OSH. We are collecting good practice examples and currently 632 which are all in our online platform and can be searched. Online learning is important to us and we have a lot of information on our website including videos and a tool box where you can access good materials. We are meeting regularly – twice a year.

3.2 The whole school approach: Health and safety as a promoter of educational quality / the quality of educational establishments (Peter Paulus)

How can we link health and education? The traditional model is that schools promote health. The modern model is that health promotes good schools. In the traditional model, evidence-based practice generates models of good practice but often no practice-based evidence and often no practice of good models. There are lots of studies but they haven't really worked practically. The "Health-Promoting School" approach was an innovative step forward in the 1990s in that it was different from traditional health education. But only 14% were using this approach. This is partly because teachers and principals didn't think of this as their core business – it's an extra burden.

Then there was a change in thinking in 2001 initiated by WHO which said that good health supports successful learning and successful learning supports health. Education and health are inseparable. There is data to support this from the WHO-HBCS Survey in 2002. There have been 39 longitudinal studies that have found that negative health outcomes affect school performance, school attendance and school attainment. Social and emotional learning also supports good outcomes for kids.

So they are changing the perspective to 'education promotion through health'. This has been promoted through articles and a European conference, "Better Schools through Health". What is a good healthy school? It is a school that is clearly committed to working on the quality dimensions of a good school. It applies special health interventions in order to fulfill the demands of school quality and it has as its overarching aim, the sustainable and efficient improvement in the quality of its teaching and education.

There are inspectors who come to check the quality of a school, look at such indicators of a good school as mental health, learning and teaching processes (these include classroom set up, sufficient air support, etc.), and whether there are health promoting aspects, active and ergonomic learning and living, vision, a well-functioning security system, and OSH for staff as well.

Specifically, a good healthy school would have:

Learning and teaching strategies
- the rooms, seating arrangements, furniture and ambience are created with health-promoting principles in mind (e.g., offering emotional security, enabling sufficient mobility, allowing eye-contact between pupils, and ensuring a sufficient supply of fresh air)
- health-promoting aspects are considered with respect to organisation of time-tables (e.g., avoiding work-overloading, and providing opportunities for activity, taking refreshments, and relaxation)
- active and ergonomic learning and living are introduced as a natural element of school-life (classes, playground/ playtime, fitness rooms, time-out rooms, active classrooms, health-promoting staff-rooms)

Balance in teaching
- staff are concerned that pupils understand lessons as comprehensible and meaningful and are thus supported in their behavioural capacities/skills (self-effectiveness, self-esteem)
- specifically designated extracurricular venues are available (e.g. sport clubs)
- staff ensures interdisciplinary teaching of health matters, including "practising what they preach"

Vision
- good health is integrated into school curricula as a concept with content and method

Decision making communication
- staff cooperates with frankness and trust when collectively developing plans pertaining to teaching and upbringing, hereby furthering their self-confidence

Operational Management
- an optimal supply is offered of suitable types of sports activities fulfilling pupils´ requirements for movement; there are sufficient, accessible games and sports facilities; and the furniture is ergonomically designed
- attention is paid to correct lighting, good ambience (e.g., ventilation), protection from toxins, reduction of noise, cleanliness and hygiene (e.g., toilet facilities)
- the school administration ensures the existence of a well-functioning security system (health-care, safety at work, fire-prevention, evacuation plans, fittings and equipment)
- the school administration acts as a role model through responsible behaviour (i.e., lives in a healthy way, does not smoke, etc.)
- the school administration organises the creation of a team of persons who are responsible for health matters pertaining to the school in which they work
- nutrition is ensured in the shape of healthy breakfasts/lunches, cafeterias, supply of milk, sufficient drinking water

Motivation and Support
- constructive problem-solving strategies for dealing with pressures at work are developed with members of staff

Planning, Implementation and Evaluation
- a "status quo" analysis of the health- and educational situation of the school allows for tailored planning of health-promoting measures
- regular evaluation of the health- and educational quality of the school is made

Staff Development
- the school administration is aware of work-related physical and psychological pressures are brought to bear on the staff, and implements measures to keep them to a minimum

Promoting positive behaviour
- rules of behaviour governing social interaction of all school participants are developed together with pupils
- modes of coping with crises and conflict are offered for all members of school (moderators, mediators, psychological advice/guidance

Support for students
- there are support systems for newcomers (e.g., mentors) and school-leavers (e.g. partnerships/ networks for practical training courses/ internships/apprenticeships, further-education application information evenings)

School climate
- the school makes sure that all members (pupils, staff, parents) are given the opportunity to participate (e.g., in "health-circles" in which all parties are represented)
- gender -specific differences are administered to with respect to how healthy living is experienced or put into practice ("Gender Mainstreaming")

Relationships within school
- various social gatherings, like meetings on good-health information, nutrition counselling, cooking and relaxation/leisure courses, sports activities etc., encourage solidarity between all members of the school (including parents) and greater identification with the school

3.3 How to reach young people? "Speak up—Stay Safe," an age appropriate approach to health and safety (Matthew Holder)

The film "Stay Safe" is about finding your voice. It was developed for young people working at the Olympics. The British Safety Council has made young people a focus because they are the workers of the future, because safety supports the investment in skills development, because youth are killed on the job, and because young, inexperienced workers are 5 times more likely to be injured during their first 4 weeks on the job.

The focus is on schools – they have worked with thousands of schools providing traditional health and safety awareness-raising. Schools are a key influence and can bring together students, teachers and parents. But teachers are not very "risk" literate. For pupils, they wanted to explore a non-traditional approach. "Speak Up! Stay Safe!" has punchy messages based on real life.

A poster contest was conducted. Broader messages include concepts of hazards, risks, and uses real life examples, rights and responsibilities. SUSS campaign only works with supportive employers and workplace cultures. SUSS is of interest to teachers as it offers the possibility to discuss work, shared responsibility, risk-education more broadly and the role of the state.

What we found effective was to use every day examples that resonate – e.g., you want to get home quickly to visit your friends. Do you take a short cut that is hazardous or take the longer way that is safer? We make these decisions all the time. Then, ask, do you know anyone hit by a car? What is the impact of getting hit by a car on you and others? Think through the benefits and risks of the choices you make. Apply this to the workplace.

Go to www.britsafe.org/speakupstaysafe for tools, films and factsheets; there is also an entertainment app game at www.britsafe.org/speakupstaysafe/the-missing.

3.4 The evidence based approach: Implementing evidence-based practices (EBP) on health and safety education in schools (Mikko Nykanen)

Evidence-based practice (EBP) refers to a body of scientific knowledge that pertains to organized interventions with identified linkages between core components and expected outcomes for an identified target population. The target group for this project is students with special needs -- a school to work group – and the project involves them in a 5-day intensive course that supports their transition to work and reduces depression upon graduation. It was developed at the Michigan Research Center, and re-published in 2012. It promotes active learning and addresses causes of depression. The curriculum includes exercises. It is an evidence-based practice and is based on 'diffusion of innovation' theory (knowledge, persuasion, decisions). This theory holds that the factors that affect diffusion are: characteristics of the innovation itself, the organization, and the social network, as well as the marketing strategies employed, the institutional structures, the change agency, and the opinion leaders.

EBP success in schools is determined at three levels: policy, organization, and individual. Working climate affects change in schools. Keys to implementation success are:
     1) creating a practice-research network;
     2) making sure that EBP is viable and sustainable;
     3) tying EBP to a local agenda and local needs;
     4) using school project networks, local change agents and opinion leaders;
     5) giving implementation support.

Session III

Session IV
November 7, 2012, afternoon

4.1 EU-OSHA campaign and materials--a success story (Marta Urrutia)

Marta highlighted some of the work of EU-OSHA, particularly the highly successful NAPO cartoon project, and showed how it contributes to quality work and working environment.

Based on EU-OSHA experience, when looking at the safety of young workers she explained that we need to:
- Teach about hazards and risk from the very beginning of a child's education
- Take a 'whole school' approach, that is, treat OSH as part of school life and the school is a safe place to work
- Integrate OSH into each subject, not as a stand-alone topic
- Learning about OSH should be fun for pupils/students and educators. For young children, make use of imagination and play
- Use age-appropriate learning resources in terms of content and style: the same key messages can be repeated in successive years, tailored to the developmental stage of the child
- Employ activity-based learning, meaningful tasks, pupil involvement
- Creating tools to give to teachers is not enough; they need knowledge about risks and OSH.
- Make training of young workers a part of a whole prevention approach, based on risk assessment, and of course OSH should be an integral part of doing the job right – at work and in vocational training.

Above all, ensure an appropriate balance of theory and practice and make sure there is a close link between classroom and real (working) life situations. For example, bring into the classroom people from the community such as older youth to share their experiences, or ask adults or retired workers to serve as mentors. This experience is positive for both young and old. Another approach is to get youngsters to solve real work problems and feed the results into the risk assessment/prevention process. This is meaningful for youngsters and provides additional value for employers

Many excellent resources for use in schools have been developed, but if risk education is to be sustainable and not just reliant on the interest of individual schools or teachers it must be embedded in the curriculum. EU-OSHA has found that there is considerable progress and activity in terms of both implemented and planned actions in the Member States, especially at primary and secondary education levels. The EU Member States have tried various ways to include OSH in education at the curriculum level:
- statutory requirements;
- voluntary curricula;
- guidelines and resources to support the statutory requirements and voluntary curricula;
- formal recommendations;
- national guidance and resources in cases where no curricula have been set;
- promotional campaigns to support the above;
- approaches linked to safe and healthy schools. This necessarily involves developing good forms of cooperation between relevant education bodies and OSH bodies.

Risk education learning objectives are increasingly becoming compulsory in the science, technology and physical education core curriculum subjects. The inclusion of relevant learning objectives is also increasingly seen as part of health education, environmental studies, citizenship/civic studies etc.

Factors which help the process of getting risk education into the school curriculum include:
- Inserting into the national OSH strategy an objective that deals with risk education in schools along with a clear policy commitment and resources;
- Being realistic – looking at what is taking place already and what is achievable. Because school curricula are already very crowded, you need to look for opportunities, such as curricula reviews, to make the case for inclusion of risk education;
- Developing close cooperation with education authorities and curriculum-setting bodies;
- Tailoring what you want to do to the present curriculum, policy and teaching methods so as to make it easier to embed risk education to appropriate subjects across the curriculum (e.g., art, physical education, citizenship)
- Developing corresponding learning objectives and curricula to fit the selected curriculum subjects;
- Providing professional development for teachers;
- Developing a school-level OSH qualification that fits in with the school qualification system;
- Developing partnerships and networks to achieve a consistent approach and avoid duplication;
- Placing learning about risk within a whole-school approach to safety, risk and health promotion;

Strategies for training teachers to deliver risk education
- Training as part of a 'whole-school' approach
- Training of all future teachers to include basic information about OSH
- All teachers to receive OSH instruction as part of their induction on arrival at a school
- Head teachers to receive additional training
- Other teachers to receive additional training, depending on their teaching specialization
- Networking schools and OSH/risk education "champions"
- Cooperation and participation of a wide range of stakeholders
- Identifying synergies and ways to teach teachers
- Providing schools with specific support, information and tools

From all the work EU-OSHA has been involved in, the same conclusion always arises: the ideal is to take a whole-school approach which combines risk education with the provision of a safe and healthy learning environment for pupils and staff. The next report of EU-OSHA will provide examples of why risk education and whole school approaches are so effective, such as:
- Improves worker and pupil health and safety
- Develops student understanding of OSH and its importance by example
- Risk prevention in schools develops teachers' understanding of OSH
- Improves the learning environment so learning as a whole is improved
- Involving pupils in hazard spotting and decisions gives them ownership and develops skills

- Is an ideal way for OSH actors to gain the support of the education sector by providing practical OSH support for safe schools, while at the same time promoting risk education.

In conclusion, many factors influence the safety and health of young workers and their development of health and safety knowledge, attitudes and abilities. This necessitates actions at various levels which target both education and the workplace. It necessitates cross-policy working to develop practical synergies and solutions (together with networking and the exchange of best practices).

Napo for teachers: A new resource for primary schools
Napo is a cartoon character who is used in short video clips about OSH situations and to deliver health and safety messages. It is not a curriculum but an additional resource that curriculum writers can use. Although it was not developed for children, (it was intended for workers as a way to raise their awareness in a humorous way), children were attracted to the character so it was adapted to schools. Generally, Napo does not speak so he does not need translation and is easily understood in all languages. However for schools, language may be important. We try to avoid having Napo based on lesson plans. He is a universal "person", i.e. he is not specific to any type of person, job, country, or culture. He addresses a serious matter but we want to it to be fun and so it is also funny.

Napo has received several endorsements. People like it because it has straight forward messages, it stimulates debate, it is a discussion starter, it engages a worker audience, and it promotes "safety with a smile." There are friends of Napo as well as a boss and supervisors. This helps make for different stories.

"Napo for Teachers" targets ages 7-9 and 9-11. A steering committee was established in Sept 2010 which included education, communication and health and safety experts. There are national experts because there are multiple countries and languages represented. Lesson plans accompany the Napo video with suggested activities and a topic help sheet for teachers. For younger children, taking care of the body, skiing and the weight of back packs were a place to start. There is a focus on risk assessment. Information is provided to teachers to help them learn about the subject matter because feedback showed that they were feeling a lack of resources to support their knowledge.

Napo for Teachers has been pilot-tested in four teaching centers (Denmark, Ireland, Slovenia, and Spain). An evaluation was conducted in the form of independent focus groups and evaluation forms dispatched in partnership with national experts. The teacher feedback was relatively consistent and there were few disparities across countries; responses were similar.

The evaluation found that:
- the material was considered "very relevant" or "somewhat relevant"
- Lesson plans were useful
- Teachers are interested in introducing the topic (Susanne Ulk, speaking of her experience using Napo in Denmark, confirmed that the teachers liked the materials and used them in several classrooms.)
- Teachers generally found the materials flexible and comprehensive
- Sometimes the lessons were too long
- There were technical problems in viewing videos
- Difficulties in fitting lessons into packed curriculum

Following are some of the specific responses to the evaluation questions:
Is the lesson plan relevant to your current curriculum in your country's primary school?
- Yes, very relevant: 53%
- Somewhat relevant: 47%
- Not at all relevant: 0%

What criteria do teachers use in deciding on resources?
- Free or cheap
- Government resources that have authoritative support
- Flexibility
- Available through the web platforms that teachers use

Teachers noted that they were able to find links to many of the topics they are already teaching and were positive about this, although some were confused about where to find things or overwhelmed with the amount of material and needed reassurance.

According to teachers, the key strengths of Napo are (a) its humor and the fact that there is no spoken language, and (b) it is interactive and therefore different from the usual lessons, and thus suitable for a range of different learners.

They saw the barriers to its use in the fact that it is (a) too long, and (b) hard to link to existing curriculum. Therefore, in the new phase, we are adjusting Napo so that it has:
- Shorter lessons
- Language free resource library
- Help sheets for teachers
- Supporting video clips
It will be disseminated through Email and provided in additional languages

Discussion:
1. Were teachers involved in the development of Napo?
      Yes, we have teachers on the team and to pilot-test.
2. What symbols were used?
      Mandatory signs, warning signs, first aid
3. How do we get DVDs?
      On YouTube and on the Napo website but must honor the copy right.

4.2 Reaching Youth Outside of School: How to deal with diversity? (Jill Joyce, Annick Starren and Robin Dewey)

Jill Joyce of IOSH-UK presented the innovative "Wise up to Work" program for youth. For over 10 years, IOSH has been promoting the importance of risk education for young people and the need for schools to not only have the will to educate young people about occupational safety and health, but also the knowledge and skills to comprehend the risks and convey the teaching points accurately. IOSH is also campaigning for the incorporation of safety related concepts in the continuous education and

training of teachers, including health and safety topics in all teachers' initial training and not leaving it as an optional personal development issue. Teachers have busy schedules and are unlikely to find time to advance their knowledge on this or new subject matters.

Building on new foundations that should be laid in schools, IOSH is also calling for the education system in the UK to deliver relevant health and safety components to be added to vocational and professional curricula, such as for architects, planners, designers, engineers, managers, and doctors.

The "Safe Worker Framework" has been developed to reduce accidents to apprentices, as many spend some time at college and some time at work and then go into an apprenticeship program. The Jaguar plant provides a good example of orientation and then monitoring and "point in time" checks, in other words, transferring health and safety from the classroom to the workplace. Guidance is needed to help integrate these concepts into work and supervisors need to be competent in health and safety. This experience showed that young workers whose supervisors discussed OSH with them were more interested and aware of health and safety issues.

What would a safe young worker look like? What characteristics will a safe young worker demonstrate?
- They will be aware of hazards
- They will understand the concept of hazard and risk and the measures that are needed to control risk
- They will be confident not only in their ability to learn and work safely but also to challenge any situation or instruction that could be unsafe to them or other people. They will know their own limitations and when to seek further advice.
- They will have developed a set of behaviours to enable them to play an active part in learning their trade and acquire practical transferable skills from their experiences

By developing these skills and knowledge, safe young workers will be able to contribute ideas, input into their college learning and work and become more involved in the day to day operation of the organisation.

Life Savings - our new campaign -- We know that good health and safety management doesn't just mean that we stop people getting killed, injured or ill at work. It can also mean saving money, to the tune of millions. Countless companies are already reaping the rewards. But we believe that on a national level we can do much more to help save money, as well as lives.

Our Life Savings campaign has three main aims:
1. We want to help businesses to get the most out of their health and safety management and add saving money to the benefits of keeping their workforce healthy and safe and staying on the right side of the law.
2. We want to help IOSH members working in thousands of organisations up and down the UK to make sure that they are getting the best out of their budgets, and cutting corporate spending to boot.
3. We want the government to take action. We believe that with a few simple steps we can save billions on a national scale.

We tell industry that there are lots of tools, case studies and other materials to inspire and support you in your work to develop a new health and safety initiative for your business. An example comes from

lessons learned as a result of the 2012 Olympic Games construction project. Through this approach, this project was able to achieve a high standard of health and safety as well as:

- − Effective communication
- − Leadership
- − Worker involvement
- − a climate of trust

The approach included many reward schemes with communication as a key factor—messages, posters, and supervisor engagement. We ran short workshops where young people had an opportunity to consider their attitudes to risk; they were asked to write down "What does the word "risk" mean to you?" Interestingly, over half the participants equated risk just with danger and the need to stay away from the activity. Only 14% of students equated risk with something daring or fun to do. The findings support previous research by McWhirter (1997) which highlighted that many children and indeed adults equate risk with just danger.

Rather than viewing risk as just another word for danger, we need to get young people to view it more as a continuum where the consequences of some hazards are more severe than others. Willingness to take risks is an important life skill but it is equally important to be able to take a realistic view of the consequences of decisions made. This is a message to promote in schools, because it reinforces the need to educate young people about being 'risk aware' not 'risk averse'.

Getting the message across to young people
 Listening to what young people think about risk helps us learn the best way to tailor safety messages for them. It's also good practice to involve young people in measures to keep them safe. Listening to what young people think about risk helps us learn the best way to tailor safety messages for them. These are effective techniques:

- ▪ Personalise the messages – make them easy to remember. Cut out the technical jargon.
- ▪ Visual messages can be particularly effective
- ▪ Use role models
- ▪ Incorporate activities and demonstrations; Provide constructive feedback
- ▪ Use social media, discussion groups, on line forums

Young people today, are "a virtual generation". They use the internet as an information source and to communicate with others by email and to play computer games. Therefore it makes sense to try and use virtual technology. Here are some helpful tips for tailoring the messages to young workers:

- ▪ Learn from students what their plans are and where they are thinking of going.
- ▪ Address the fact that youth equate work with danger and are not seeking risk simply for the thrill
- ▪ listen to what young people think about risk
- ▪ use pictures with hazard scenarios based on something that actually happened on the job or in an apprenticeship. (Can be used on an interactive wipe board.)
- ▪ have an app that includes fitness.

We need to help students and employers use new technologies and to help build their confidence in making decisions.

Annick Starren, showed how the Netherlands reaches youth from immigrant communities, who don't speak the language, or who have low literacy. The program is named "Safety for All" from the idea that everyone can learn to work safely. It operates out of 23 locations in the Netherlands. The concept is to develop knowledge about healthy living along with partners and to use industrial innovations creatively. The world is changing so we need to use new approaches to promote safety on the work floor, and to adjust to changes in the labor market, labor migration, globalization, and precarious work. "Safety for All" provides programs for middle management, that target those who are undertaking low skill work—restaurants, hotels, housekeeping—that are often performed by young people or older people, and may involve working with precarious employers.

Following is how they approached the issue:

1. Created a framework/matrix; identifying roles and categorizing the do's and don'ts for each role

Target group	Risk awareness	motivation	capabilities	control options	sustainability
Employees					
Peer groups					
Management					
Company/branch					

2. Researched the target group. (They investigated the causes of increased accidents in migrant workers and found out that while migrants differ in language and understanding of local customs, the literature does NOT support that they are different in terms of risk perception or background in OSH training or having less career aspirations.)

3. Created micro tools for training for reaching the hard to reach groups based on the do's and don'ts, containing: toolbox, role playing game for each actor, games, focus group guides, and empowerment exercises, E-Quiz competencies for intercultural effectiveness, cultural empathy, open mindedness, social initiative, emotional stability, flexibility. The most effective elements were ones that were visual, and involved positive affirmations.

4. Worked toward building partnerships with training and consultancy organizations that would include an E-learning course and certificate.

Robin Dewey, from the University of California's LOHP project, discussed how to reach youth and adults with disability through work and community based programs. First they asked, "Where are people with disabilities employed in the US?" They found that workers' with disparities are under employed. When working, they work in: industrial laundries, grocery stores, light manufacturing, janitorial work, lawn services, garment work, and community rehabilitation programs (CRPs).

Then we looked at what is the injury rate among these workers. We found that they had significantly higher injury rates (2010 BLS data show rates almost twice as high and a 2012 NIOSH funded study showed rates almost 3 times as high.) These individuals are doing hazardous work. The point is not to keep people with disabilities out of the workplace. Instead, the hazards have to be eliminated, accommodations need to be made, and training provided that is tailored to people with disabilities.

Workers with disabilities may bring special risk factors to the workplace such as trouble understanding health risks, anticipating risks and consequences, and trouble communicating about concerns.

We developed a curriculum "Staying Safe at Work" for employers, high school transition programs and support agencies to use to teach people with disabilities the core competencies of identifying hazards, knowing how to control hazards, knowing what to do in an emergency, and being able to communicate about hazards. "Staying Safe at Work" is a 4-hour course that uses realistic pictures and situations, the less abstract the better; it is the pictures that "tell the stories." These materials can be found on the web at www.lohp.org. These are available for use in

- high schools which have transition programs for young people with disabilities
- Community-based support agencies
- Community rehabilitation programs (CRPs) and the agencies/organizations that provide oversight
- Major companies. An example of this is Walgreen's drugstores where training is taking place in their training centers.

When made aware of the issue, employers generally tend to be receptive.

Session V
Thursday, November 8, 2012, morning

5.1 The strategic approach to mainstreaming OSH into education: Singapore's Pre-employment Training Initiative (Yew Kwong)

Singapore's WSH Act was revised in 2006. A national strategy was developed as well as a plan for enhanced health and safety by 2015. The goal has been set to reduce fatalities to 1.8 by 2015. In 2008, the WSH Act was extended to 6 new sectors and the Workers' Comp Act was revised. In 2010 a strategy and sectorial roadmaps were launched to support WSH 2018. The WSH partners come from the regulatory agencies, industry and academic sectors.

One specific effort has been directed at increasing the competency of OSH professions and to integrate OSH education into the vocational training of at least 30 trades. The idea is to educate individuals on OSH before joining the workforce by incorporating OSH into the Pre-Employment Training (PET) framework.

There have been a number of challenges. Namely, the academic curriculum is already overloaded so it's hard to introduce the new WSH curriculum. Also, it was found that students were not interested – they don't see WSH as important to their educational outcome. They are also overloaded with social and recreational activities. And, the teaching staff is not equipped with relevant WSH knowledge. Finally, there was a lack of easy-to-use teaching resources.

To address these challenges, WSH concepts are being integrated into the existing curriculum. WSH-related studies are being introduced into electives and WSH briefings are being conducted prior to industrial training before graduation. WSH is being introduced during orientation and social activities. Trainings for teaching staff who are interested in acquiring WSH knowledge are also being conducted. Existing resources from WSHC, the Labor Ministry and others are being utilized.

Another interesting way they have promoted WSH education is by building floats for Rag and Flag Day. Students have to build safe floats. They are also using e-learning and an online safety quiz.

5.2 Hong Kong Experience in promoting youth education in OSH (Wah-Sing Tang)
Children are the future of the society. Safety and health of tomorrow's workforce depends partly on the mainstreaming of occupational safety and health into education today. The integration of occupational safety and health (OSH) into general and vocational education and training has been recognized as an important part of the strategy related to health and safety at work by the WHO. It is an essential element for developing a safety culture in all parts of society. Experiences have shown how important it is that a safe culture encompasses all phases of lifelong learning, starting from primary education, including secondary/high school education, tertiary, and vocational education.

It is, however, difficult to integrate OSH into school curricula, because:
1. School curriculum is full enough.

2. Workload of teachers is heavy and time is limited.   The Government's New Academic Structure has posed additional workload on schools and teachers.

- primary teachers have to cope with external school review, territory-wide system assessment, school self-evaluation and incentive education;
- secondary/high school teachers have the additional "New Senior Secondary Curriculum Reform" and "Introduction of school-based assessment in public examinations"
- alongside these, teachers must also perform their teaching tasks as well as different types of non-teaching jobs, such as school administration meetings, clerical work, preparation of proposals and reports, and school promotion and student recruitment.

Some surveys on work pressure of teachers in Hong Kong have revealed that most teachers are least satisfied with their non-teaching duties; they would like to devote more time to preparing academic lectures and counseling students.

How to integrate OSH with education?
We adopt a holistic approach to OSH promotion. These approaches allow delivering OSH awareness and knowledge to students from primary schools to secondary/high schools and to tertiary and vocational institutes. The former focuses on the OSH education at secondary/high schools; the later focuses on OSH awareness promotion at primary and secondary/high schools.

At the secondary/high school level, OSHC links OSH with the syllabus of the New Senior Secondary (NSS) Curriculum and incorporates career-related experiences. In 2011, OSHC developed the OSH Training Kit under the Other Learning Experiences (OLE) of the New Senior Secondary Curriculum with the support of the Education Bureau, Hong Kong Association of Career Masters and Guidance Masters, and Secondary School Principals. The ultimate goal of the OLE training kit is to foster awareness and provide basic workplace OSH knowledge to young people. This training kit contributes to the priority 7.2 of the World Health Organization (WHO) Global Plan of Action -- vulnerable youth worker groups. It comprises 4 modules:
    (1) Introduction of OSH;
    (2) Work Safety for Youth & Summer Jobs;
    (3) Potential Hazards at Work & Corresponding Safety Measures; and
    (4) Occupational Health.
Each module includes a series of interactive exercises, such as case studies, group discussion, hazard spotting activities. Further, the lesson plans, teaching PowerPoints, safety quizzes and reference materials such as booklets, leaflets and OSH videos are also provided. Schools can make use of the Kit to develop their own OSH training for the students related to the other learning experience programs.

The Council also launches workshops based on the OLE training kit to strengthen the OSH learning of the students and offer them an opportunity to practice using safety tools and equipment.   The workshop includes 2 hours: one hour classroom training and one hour visit to the OSHC OSH Academy.

The OSH Academy was opened on 11 August 2011. The six-story academy seven interactive classrooms and 23 specialized training rooms, practical grounds and simulated workplaces of different trades. These facilities are set up to cater for different training needs of the industries, allowing us to improve the training qualities and facilitating the trainees' learning through practical hands-on

experience. The academy also has an "OSH Information Centre" where trainees and the public can obtain a non-stop information service.

During the visit, students are shown the use of safety tools and equipment. They also have the opportunity to practice safe operation through training aids, such the fork-lift truck simulator, to learn safe manual lifting and handling, practice good workplace ergonomics, etc.

Since August 2011, over 500 students and teachers (13 secondary schools) have participated in the OSH workshop. The feedback of the participants has been collected. We can see that the participants found that the content of the workshop was useful and they acquired OSH knowledge or skills from the workshop. Overall they were satisfied with the workshop and the average score of "overall evaluation" was 4.2 out of 5.

Moving onto the capacity building for vocational training students, we believed that linking OSH with vocational training was essential to instilling a risk/accident preventive culture among the youths who will shortly become the impetus force in various workplaces and industries. Starting in 2010, the Council has collaborated with the VTC (Vocational Training Council) in a joint program on OSH, the OSH-related Vocational Assessment (VA) program. The goal of the VA system is to facilitate the VTC students attaining recognized OSH qualifications and to provide them with OSH vocational skills for their future employment and career development. Certificates are awarded to those who have achieved an acceptable OSH standard.

OSH efforts are also being given to graduate engineers. Professional engineers play an important role in occupational safety and health. Safe design and safe operation of engineering works not only prevents injury due to accidents but also increases productivity. Engineers in different industries can help prevent accidents by providing safe engineering designs/machinery/maintenance/control systems, etc. To enable engineers to fulfill these duties, they need to possess knowledge of safety and health that is seldom included in the curriculum during their engineering education. OSHC and Hong Kong Institution of Engineers (HKIE) jointly organize safety training courses for all graduate engineers.

Promoting safety & health in schools is one of our initiatives to nurture safety culture in the community. The ultimate objective of developing Safe and Healthy Schools is to create a safer, healthier, harmonious and happier working and studying environment for everyone. OSHC was appointed by WHO to be one of the International Safe Schools Certifying Centers in 2009 under the framework of its Safe Community initiative. The objective of the International Safe Schools Program is to apply the best practices of proven injury prevention programs to protect the safety and health of teachers, staff, students and visitors in the school environment. There are about 80 international safe schools all over the world. In Hong Kong, nine schools have been accredited as international safe schools, including six nursery schools, one primary school, and two special schools.

To promote OHS in primary schools, the Council has cooperated with schools to organize a number of exhibitions and competitions to enhance children's knowledge and understanding of OSH culture and attitudes. Since 2010, we have promoted OSH among children and their families by continuing to cooperate with Metro Radio in producing and broadcasting a series of programs, as well as organizing primary school visits and competitions with the theme of "Care for Safety and Care for your Family." The aim of the activities is to improve OSH awareness of primary students, and through the activity,

enhance the understanding of work safety of their parents, arousing the OSH awareness of every family, in order to achieve the target of "practice of OSH, and guardian of the family." The Council launched a Lego building game in 2005; since then 200 primary students have built a 15x20 ft. OSH model using 150,000 Lego bricks, the largest of its kind ever created in Hong Kong.

School visits have been conducted and seminars given on occupational safety and health to increase the awareness of the primary students about OSH. Workshops for both primary students and parents have been established to increase the OSH concern of the family through multiple interactive games. Outstanding OSH family members were invited to share their experiences on a radio show, "Care for safety and care for your family." Further, we launched a poster design competition in 2010. There were 18 schools which joined the activity and more than 1000 artworks received. To prevent work related injuries and enhance the awareness on safety and health at the workplace, the Council established the "Occupational Safety & Health Gallery" in the Hong Kong Science Museum to cultivate a safe culture for the youngsters. The gallery offers a series of well-designed interactive multi-media presentations to increase knowledge on safety and health at work.

The Occupational Safety and Health Council and the RTHK2 TeenPower launched the "OSH Safe Tee Design Competition". The competition enables young people to incorporate safety and health concepts into their fashion designs, increasing their awareness on occupational safety to instill a proper safety and health attitude and knowledge into the minds of youth.

Since 1992, the Council has organized a Safety Quiz annually which aims at reinforcing the occupational safety and health knowledge of the public. The safety quiz is co-organized by the Council and the Labor Department. The OSHC also developed a Safety Quiz Handbook which comprises 18 parts that generates more than 1600 OSH questions and answers. Its content covers various industries and working procedures. The handbook was written up particularly for the reference of the participating teams.

There are many other activities to promote OHS, such as the "Occupational Safety Greeting Card" design competition which gives youngsters a chance to express their concerns about OSH and to care for their families. The "TeenPower Carnival 2009-cum-Inauguration of the 'Comic Drawing on Occupational Safety" which as co-organized by the Council and RTHK Radio 1 as a promotional campaign to disseminate OSH messages among young people. OSH Road shows and exhibitions disseminate OSH knowledge to lay a solid foundation for safety culture.

Looking forward, we need to consolidate existing programs, evaluate the effectiveness of the current efforts and introduce more programs to promote OSH with schools and the public.

5.3 An international OSH network for OIC countries: OIC-OSHNET (Ahmet Serdar Sevine)

The Organization of Islamic Cooperation (OIC) Network for Occupational Health and Safety, found at www.oicvet.org, had a kick off meeting in 2011. The OIC-OSHNET network was started for Islamic countries, with Turkey serving as a bridge between European and Islamic countries. Since then it has . held a number of trainings.

The duty of DGOHS is to adopt and ensure the implementation of legislation in the field of OSH. It collaborates with the Ministry of Education andwith the Turkish Standardization Institution as well as with the Ministry of Health, the Ministry of Food and Agriculture and Livestock, and international bodies such as EuOSHA, WHO-CC, ILO-CIS, OIC, and the Dresden Occupational Health Academy.

5.4 Experiences in adapting materials – an example from Egypt (Rick Rinehart)
The problem in Egypt is that there is a low level of awareness about OSH among the public. The concept of OSH prevention is not part of the culture.

We wanted to see if they could use the "Talking Safety" curriculum in Egypt so we had it translated it into Arabic by an NGO and then held three workshops to pilot test the materials. These workshops explored various avenues for reaching young people in Egypt through public secondary schools, and vocational schools before they start work or early in their careers.

It was well received, both the games and the interactive activities, noting that "This topic is lacking in our culture." They suggested creating a component on fire safety and road safety which are big issues in Egypt, to add games that are familiar to their children, to adapt the drawings so they reflect what they look like, and to include a focus on girls.

Subsequent to the pilot-test, they put together an advisory group which suggested potential alternative entry points, such as youth clubs, Susan Mubarak's 100 Schools Programs, book publishers, Egyptian Liquefied Natural Gas Schools, Microsoft Project schools, Vocational Education Schools, drop-outs and those working in the informal economy. Overwhelmingly people said this is not going to work in the mainstream schools – too many barriers.

The group also asked – where is the demand? Would including OSH help the private sector? They surveyed OSH professionals in big companies (in English and Arabic). They almost all felt OSH should be taught in school and that their company would benefit from learning before they reached the workplace.

In conclusion, the materials were well received. It is OK to retain in the materials the information and activities about rights and speaking up. Companies are willing to support bringing it into Egypt. This process that they went through could be used in other countries.

5.5 Developing partnerships for mainstreaming OSH into education (Matthew Holder, Ulrike Bollman, Steve Horvath, Marie-Joelle Antoine)

Marie-Joelle Antoine, from ISSA, addressed the issue of costs. She noted that while a lot of views about costs have been expressed, there are financial costs but also human costs–and that's what is more important. This is the work that has been done in the Work and Training section of ISSA. It is nice to have policies but how do we convince people that OSH is important? We have to become "sellers" which was a new insight for me. Common difficulties that we all have are that so many people in the world find OSH boring. But we have seen diverse methods and activities to address that. What do we do about the informal economy? We don't want to forget these children.

Steve Horvath, from the Canadian Occupational & Safety Association, acknowledged that pulling the provinces together is a challenge. We have a tri-partite forum that brings all the parties together. The problem originally was that the Ministries of Education weren't at the table; we would decide and then tell the Ministry of Education to integrate it – which doesn't work. We have now changed that – we sit together at their table. We have to recognize that it's their curriculum. We say we would like to integrate OSH, how do you think we should do that? Also important is to have data to support the value of its inclusion in education.

Andrea Okun, from the US National Institute of Occupational Health felt that there was need for a library of good research materials, and also to have groups who are interested in this to work together and share tools, such as a Linked In group – with special identifications so you can message others about your topic.

Robin Dewey proposed to prepare a chart of resources that are available and send to the participants.

Ulrike Bollman proposed that she and Peter Paulus would develop a flow chart on the Whole School approach describing how to do this.

Summary of the workshop
Susan Gunn, of the ILO, asked how important is it that we get statistics on the problem? The response was that these are very important.

Nasolo Thompson, of ILO in Jamaica, felt that informal sector injury data is very important for the developing countries. She said that some countries are rich in materials and experience but there are other countries that are off the radar screen in terms of OSH and young worker health and safety. We have an obligation as privileged countries to help other countries. We need to be flexible. For example, Finland has some of the best OSH legislation in the world but we can't understand it because it isn't translated into one of the more common languages.

Jutta Busch, of ISSA, said "I think we managed to have a good conference here. It was a good idea to bring ENETOSH too. We have learned a lot from each other. I hope we can have another meeting together."

Andrea Okun of NIOSH, thanked everyone for staying through the whole meeting. It is apparent that we do not need to create a lot more material because so much exists, though it may need to be adapted and translated. There is so much to share and much to learn.

Ulrike Bollman of ENETOSH, thanked the group for including ENETOSH. "I admire the professionalism and the personalities here in the room". There will be follow-up from this meeting. It has proved that a lot of organizations are working toward the same goal and in the same direction. We need to connect with each other.

Sharon Patterson of Guyana, one of the countries proposing to adopt some of the materials, expressed thanks for having us come to this meeting. "We have learned a lot from all of you."

Rick Rinehart of USAID suggested that we should publish what we are doing in a journal article, particularly in an educational journal. Policymakers and donor agencies read the peer review journals.

Sue Boychuk of Ontario offered that we need a category on "How to implement" – that's the question that still needs to be discussed, and that we need people to write success stories regarding their implementation.

Lester Claravall proposed to develop a draft timeline.

List of Participants

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Horvath, Steve - Canadian Centre for Occupational Health and Safety

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Santos O'Connor, Francisco - International Labour Organization
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