Promotion of physical activity and contrast to sedentary lifestyle: public health programmes in Lombardy

Report - May 2014
1. Introduction

Investing in prevention and control of chronic diseases - degenerative diseases (chronic non-communicable diseases - NCD) allows to reduce premature deaths, preventable morbidity and disability, and to improve the quality of life and well-being of individuals and society. Not less than 86% of deaths and 77% of the disease burden in the WHO European Region are caused by this large group of disorders that have in common determinants (social, economic, etc.), modifiable risk factors and prevention strategies (Figures 1 and 2).

Figure 1 - “Causes of chronic diseases” - “Preventing chronic disease: a vital investment” WHO, 2008

Figure 2 – Noncommunicable diseases: 4 diseases, 4 modifiable risk factors

Promoting “healthy lifestyles” is therefore an excellent investment to counter what is now called “the epidemic of chronic degenerative diseases”.

**Figure 3** - Correlations between protective effects of physical activity vs non-communicable diseases

Scientific evidence and international guidelines (WHO European Region) indicate the need for integrated preventive interventions (Figure 4), aimed at facilitating the adoption of healthy lifestyles, based on strategies of health promotion both at population²-[or community] and individual-level (i.e. motivational counseling techniques for people who already present risk factors (see Figure 1)).

² Health promotion programmes and in particular lifestyles and environment conducive to health, aimed at facilitating the adoption of healthy lifestyles, based on a multicomponent (inclusive of all health determinants), according to life course and setting (schools, workplaces, local communities, health service)and intersectoral approach (education, social, urban planning, transports, agriculture policies, etc.), with the involvement of all, from local authorities to local community [community empowerment].
An active lifestyle, with daily practice of physical activity, carried out according to the recommended levels (Figure 5), contributes not only to the prevention of major chronic degenerative diseases, but also to promote of psychological well-being by reducing anxiety, depression and loneliness, and to support an "active and healthy aging", increasing the degree of autonomy of the elderly and reducing the risk of falls.
RECOMMENDED LEVELS OF PHYSICAL ACTIVITY FOR HEALTH

5–17 years old

For children and young people of this age group physical activity includes play, games, sports, transportation, recreation, physical education or planned exercise, in the context of family, school, and community activities. In order to improve cardiorespiratory and muscular fitness, bone health, cardiovascular and metabolic health biomarkers and reduced symptoms of anxiety and depression, the following are recommended:

1. Children and young people aged 5–17 years old should accumulate at least 60 minutes of moderate- to vigorous-intensity physical activity daily.
2. Physical activity of amounts greater than 60 minutes daily will provide additional health benefits.
3. Most of daily physical activity should be aerobic. Vigorous-Intensity activities should be incorporated, including those that strengthen muscle and bone, at least 3 times per week.

18–64 years old

For adults of this age group, physical activity includes recreational or leisure-time physical activity, transportation (e.g. walking or cycling), occupational (i.e., work), household chores, play, games, sports or planned exercise, in the context of daily, family, and community activities. In order to improve cardiorespiratory and muscular fitness, bone health and reduce the risk of NCDs and depression the following are recommended:

1. Adults aged 18–64 years should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week, or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week, or an equivalent combination of moderate- and vigorous-intensity activity.
2. Aerobic activity should be performed in bouts of at least 10 minutes duration.
3. For additional health benefits, adults should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity activity.
4. Muscle-strengthening activities should be done involving major muscle groups on 2 or more days a week.

65 years old and above

For adults of this age group, physical activity includes recreational or leisure-time physical activity, transportation (e.g. walking or cycling), occupational (if the person is still engaged in work), household chores, play, games, sports or planned exercise, in the context of daily, family, and community activities. In order to improve cardiorespiratory and muscular fitness, bone and functional health, and reduce the risk of NCDs, depression and cognitive decline, the following are recommended:

1. Adults aged 65 years and above should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week, or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week, or an equivalent combination of moderate- and vigorous-intensity activity.
2. Aerobic activity should be performed in bouts of at least 10 minutes duration.
3. For additional health benefits, adults aged 65 years and above should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity activity.
4. Adults of this age group with poor mobility should perform physical activity to enhance balance and prevent falls on 3 or more days per week.
5. Muscle-strengthening activities should be done involving major muscle groups, on 2 or more days a week.
6. When adults of this age group cannot do the recommended amounts of physical activity due to health conditions, they should be as physically active as their abilities and conditions allow.

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3 “Global Recommendations on Physical Activity for Health” ©WHO 2010.
2. MEASURING SEDENTARY LIFESTYLES

2.1 Europe

“Special Eurobarometer 412 - Sport and physical activity” published by the European Commission in March 2014 showed that 41% of Europeans exercise or play sport at least once a week, while 59% never or rarely does (Figures 4 and 5).

*Figure 6* - Citizens who NEVER exercise or play sport (EU average 42%, Italy 60%)

*Figure 7* - Citizens who NEVER engage in other physical activities such as cycling, dancing, gardening, etc. (EU average 30%, Italy 50%)
2.2 ITALY

In 2013, in Italy 30% of people aged 3 or over declared to practice one or more sports in their free time; among these 21.3% play sports on an ongoing basis and 8.7% only occasionally. People doing physical activity, even if not playing sports, are 27.7%, while 42% are sedentary.

**Tab. 1** Persons aged 3 years or over who play sports or some physical activity and sedentary people by region - Year 2013 (%)

<table>
<thead>
<tr>
<th>REGIONS GEOGRAPHICAL AREAS</th>
<th>Playing sport</th>
<th>On which bases:</th>
<th>Practicing only some physical activities</th>
<th>Not practicing any sport or physical activity</th>
<th>Not reported</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ongoing</td>
<td>occasionally</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piemonte</td>
<td>29.1</td>
<td>19.3</td>
<td>9.7</td>
<td>35.1</td>
<td>35.7</td>
</tr>
<tr>
<td>Valle d’Aosta/Vallée d’Aoste</td>
<td>40.5</td>
<td>28.1</td>
<td>12.4</td>
<td>28.4</td>
<td>31.0</td>
</tr>
<tr>
<td>Liguria</td>
<td>27.4</td>
<td>20.8</td>
<td>6.5</td>
<td>29.2</td>
<td>43.2</td>
</tr>
<tr>
<td>Lombardia</td>
<td>35.7</td>
<td>25.8</td>
<td>9.9</td>
<td>29.9</td>
<td>33.8</td>
</tr>
<tr>
<td>Trentino-Alto Adige/Südtirol</td>
<td>47.8</td>
<td>30.0</td>
<td>17.8</td>
<td>36.8</td>
<td>15.0</td>
</tr>
<tr>
<td>Bolzano/Bazen</td>
<td>52.3</td>
<td>34.4</td>
<td>17.9</td>
<td>32.6</td>
<td>14.2</td>
</tr>
<tr>
<td>Trento</td>
<td>43.4</td>
<td>25.8</td>
<td>17.6</td>
<td>40.7</td>
<td>15.9</td>
</tr>
<tr>
<td>Veneto</td>
<td>37.7</td>
<td>26.7</td>
<td>11.0</td>
<td>37.4</td>
<td>24.8</td>
</tr>
<tr>
<td>Friuli-Venezia Giulia</td>
<td>38.3</td>
<td>26.5</td>
<td>11.9</td>
<td>32.5</td>
<td>28.7</td>
</tr>
<tr>
<td>Emilia-Romagna</td>
<td>35.8</td>
<td>26.0</td>
<td>9.8</td>
<td>32.6</td>
<td>31.4</td>
</tr>
<tr>
<td>Toscana</td>
<td>32.7</td>
<td>24.2</td>
<td>8.5</td>
<td>29.3</td>
<td>37.6</td>
</tr>
<tr>
<td>Umbria</td>
<td>30.9</td>
<td>21.2</td>
<td>9.7</td>
<td>28.0</td>
<td>41.1</td>
</tr>
<tr>
<td>Marche</td>
<td>32.9</td>
<td>23.7</td>
<td>9.2</td>
<td>31.0</td>
<td>35.8</td>
</tr>
<tr>
<td>Lazio</td>
<td>31.7</td>
<td>23.7</td>
<td>8.0</td>
<td>23.3</td>
<td>44.5</td>
</tr>
<tr>
<td>Abruzzo</td>
<td>26.9</td>
<td>19.8</td>
<td>7.1</td>
<td>27.9</td>
<td>44.7</td>
</tr>
<tr>
<td>Molise</td>
<td>23.5</td>
<td>17.7</td>
<td>5.9</td>
<td>25.2</td>
<td>50.9</td>
</tr>
<tr>
<td>Campania</td>
<td>17.6</td>
<td>12.6</td>
<td>4.9</td>
<td>21.1</td>
<td>60.9</td>
</tr>
<tr>
<td>Puglia</td>
<td>25.0</td>
<td>17.2</td>
<td>7.8</td>
<td>19.6</td>
<td>54.8</td>
</tr>
<tr>
<td>Basilicata</td>
<td>24.3</td>
<td>17.4</td>
<td>6.9</td>
<td>20.8</td>
<td>54.7</td>
</tr>
<tr>
<td>Calabria</td>
<td>20.2</td>
<td>14.2</td>
<td>6.0</td>
<td>19.3</td>
<td>60.1</td>
</tr>
<tr>
<td>Sicilia</td>
<td>20.9</td>
<td>13.1</td>
<td>7.8</td>
<td>19.1</td>
<td>59.6</td>
</tr>
<tr>
<td>Sardegna</td>
<td>30.2</td>
<td>21.9</td>
<td>8.3</td>
<td>30.5</td>
<td>39.1</td>
</tr>
<tr>
<td>North-West</td>
<td>33.1</td>
<td>23.5</td>
<td>9.5</td>
<td>31.2</td>
<td>35.2</td>
</tr>
<tr>
<td>North-Est</td>
<td>37.9</td>
<td>26.7</td>
<td>11.2</td>
<td>35.0</td>
<td>26.9</td>
</tr>
<tr>
<td>Central</td>
<td>32.1</td>
<td>23.7</td>
<td>8.4</td>
<td>26.6</td>
<td>41.0</td>
</tr>
<tr>
<td>North-Central</td>
<td>34.2</td>
<td>24.5</td>
<td>9.7</td>
<td>30.9</td>
<td>34.5</td>
</tr>
<tr>
<td>South</td>
<td>22.0</td>
<td>15.2</td>
<td>6.8</td>
<td>21.4</td>
<td>56.2</td>
</tr>
<tr>
<td>Italy</td>
<td><strong>30.0</strong></td>
<td><strong>21.3</strong></td>
<td><strong>8.7</strong></td>
<td><strong>27.7</strong></td>
<td><strong>42.0</strong></td>
</tr>
</tbody>
</table>

Source: Istat, Indagine multiscopo sulle famiglie “Aspetti della vita quotidiana”

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4 It is considered sports activities those practised in free time on ongoing basis or occasionally in the population aged 3 and over, excluding people who play sports world for professional reasons (professional athletes, teachers, coaches). Among those who practice only some physical activity are included those who engage in hobbies that involve movement in some way (walking at least two miles, swim, ride a bike or other); sedentary are those who say they do not play sports, or other forms of physical activity.
2.3 LOMBARDY

In Lombardy sedentary lifestyle is common in childhood, adolescence and among adult population, although with less critical situations than in other areas of the country.

Some relevant data by age groups are reported below.

2.3.1 General and adult population

**Table 2** Persons aged 3 years or over who play sports or some physical activity and sedentary people, in Lombardy - Year 2013 (%)

<table>
<thead>
<tr>
<th>Playing sport</th>
<th>On which bases:</th>
<th>Practicing only some physical activities</th>
<th>Not practicing any sport or physical activity</th>
<th>Not reported</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>habitually</td>
<td>occasional</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>35.7</td>
<td>25.8</td>
<td>9.9</td>
<td>29.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33.8</td>
</tr>
</tbody>
</table>

Source: Istat, Indagine multiscopo sulle famiglie “Aspetti della vita quotidiana”

**Figure 8** – Sedentary population aged 18-69 according to some socio-demographic characteristics. Lombardy, 2013 (%)

Source: “Sistema integrato di raccolta e analisi dati (surveglianza) su adozione di pratiche preventive e stili di vita favorevoli alla salute nella popolazione in regione Lombardia” - Ricerca Éupolis DG Salute - 2013
2.3.2 Children in primary schools

Table 3

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Lombardy 2012</th>
<th>Italy 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sedentary children*</td>
<td>16.7%</td>
<td>17.4%</td>
</tr>
<tr>
<td>Children who played outdoors the afternoon before the survey</td>
<td>69.2%</td>
<td>67.2%</td>
</tr>
<tr>
<td>Children who played sports activities the afternoon before the survey</td>
<td>45.9%</td>
<td>46.2%</td>
</tr>
<tr>
<td>Children engaged in physical activity at least 1 hour a day for 5-7 days a week</td>
<td>13.8%</td>
<td>16.1%</td>
</tr>
</tbody>
</table>

(*The day before the survey they did not physical activity in school or sports nor played outdoors in the afternoon)

Source: Sistema di sorveglianza OKkio alla SALUTE 2012 (ISS, Ministero Salute, Regione Lombardia)

Table 4 – Sedentary children according to gender and residency area

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>16.1</td>
</tr>
<tr>
<td>Female</td>
<td>17.3</td>
</tr>
<tr>
<td><strong>Residency area</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;10.000 inhabitants</td>
<td>16.4</td>
</tr>
<tr>
<td>10.000-50.000 inhabitants</td>
<td>21.2</td>
</tr>
<tr>
<td>&gt;50.000 inhabitants</td>
<td>13.0</td>
</tr>
<tr>
<td>Metropolitan area/ peri-urban area</td>
<td>14.6</td>
</tr>
</tbody>
</table>

Source: Sistema di sorveglianza OKkio alla SALUTE 2012 Istituto Superiore di Sanità, Ministero della Salute – Regione Lombardia

Figure 9 – Means of transport children use to go to school in Lombardy.

Source: Sistema di sorveglianza OKkio alla SALUTE 2012 – ISS, Ministero della Salute – Regione Lombardia
2.3.3 **Girls and boys in secondary schools (aged 11 – 15)**

**Figure 10** - Physical activity in adolescents (aged 11-1) – Lombardy

Source: Studio internazionale HBSC 2010 (Comportamenti legati alla salute in ragazzi in età scolare) Ministero Salute, MIUR, Università degli studi di Torino, Regione Lombardia
Figure 11 – Physical activity in adolescents (aged 11-15) – Italian regions

ADOLESCENTS WHO REPORT AT LEAST 60 MINUTES OF PHYSICAL ACTIVITY DAILY

International average 19%

Source: Studio internazionale HBSC 2010 (Comportamenti legati alla salute in ragazzi in età scolare)
Ministero Salute, MIUR, Università degli studi di Torino, Regione Lombardia
3. PROMOTING HEALTHY LIFESTYLE AND SUPPORTIVE ENVIRONMENTS FOR HEALTH

World Health Organization defines lifestyle as “(...)a way of living based on identifiable patterns of behavior which are determined by the interplay between an individual’s personal characteristics, social interactions, and socioeconomic and environmental living conditions. Individual lifestyles, characterized by identifiable patterns of behavior, can have a profound effect on an individual’s health and on the health of others (...) If health is to be improved by enabling individuals to change their lifestyles, action must be directed not only at the individual but also at the social and living conditions which interact to produce and maintain these patterns of behavior”.

This conceptual framework highlights the complexity involved in the process of changing behavior (individual and collective), which has to be taken into account to plan an effective and sustainable public health.

Thus, to sustain an active lifestyle educational, informative and communicative interventions are needed (individual empowerment), but at the same time it is necessary to act on environment determinants such as the urban structure of the city, social networks, opportunities to join promotion programmes / initiatives, etc..

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5 "Lifestyle – lifestyles conducive to health”, Health Promotion Glossary - ©WHO 1998

6 That is, physical, organizational, social, economic communities dimension: ril. The Ottawa Charter for Health Promotion. 1986 WHO; John Cafford “WHO is making a difference through health promotion”, Oxford Journals Medicine - Health Promotion International Volume 14, Issue 1; Salute 2020 “Una politica di riferimento europea a sostegno di un’azione trasversale ai governi e alle società per la salute e il benessere” WHO Europe 2012
The "Toronto Charter for Physical Activity"7, a programming tool based on this process of advocacy8, in its supplementary document, “Non-Communicable Diseases Prevention: Investments that Work for Physical Activity”, identifies and describes the seven best investments (sustainable and evidence-based actions) to increase the level of physical activity of the population which, if applied on a sufficient scale, can contribute significantly in reducing the burden of non-communicable diseases and in promoting the health of the population:

1. Programmes targeting the entire school community
2. Transport policies and systems that prioritise walking, cycling and public transport
3. Urban design regulations and infrastructure that provide for equitable and safe access for recreational physical activity, and recreational and transport-related walking and cycling across the life course
4. Physical activity and NCD prevention integrated into primary health care systems
5. Public education, including mass media, to raise awareness and change social norms on physical activity
6. Community-wide programmes involving multiple settings and sectors and that mobilize and integrate community engagement and resources
7. Sports systems and programmes that promote ‘sport for all’ and encourage participation across the life span.

Figure 12 – The Toronto Charter [presentation]

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8 "A combination of individual and social actions designed to gain political commitment, policy support, social acceptance and systems support for a particular health goal or programme”. WHO Health Promotion Glossary, 1998
The structural/environmental interventions and intersectoral policies are conceptually integrated into a systemic programme of Public Health, as represented in Figure 13.

Figure 13 - Logical scheme of analysis of the public health programme “Contrast to sedentary lifestyle and physical activity promotion”

4. PUBLIC HEALTH ACTIONS IN LOMBARDY

The Lombard Local Health Units (ASL, Aziende Sanitarie Locali) in their annual plan of interventions for health promotion (the Local Integrated Plan for Health Promotion) address in an integrated manner the promotion of physical activity and healthy eating as well as the other health or risk factors, such as smoking. The interventions are based on regional guidelines<sup>10</sup> and oriented to appropriateness criteria such as effectiveness, integration, intersectorality<sup>11</sup> and sustainability<sup>12</sup>. Currently, all over the region, interventions are developed included in network programmes (Workplace and school) and/or carried out with the involvement of local authorities, associations and other stakeholder of local communities, as described below (Figure 14).

**Figure 14** - Lombard Local Health Units (ASL, Aziende Sanitarie Locali) activities in 2013.

Source BDProSal, Regione Lombardia

<sup>10</sup> “Indirizzi alle ASL per la pianificazione integrata degli interventi di promozione della salute” DG Sanità 2009, http://promozionesalute.regione.lombardia.it

<sup>11</sup> “Intersectoral action for health is seen as central to the achievement of greater equity in health, especially where progress depends upon decisions and actions in other sectors, such as agriculture, education, and finance. A major goal in intersectoral action is to achieve greater awareness of the health consequences of policy decisions and organizational practice in different sectors, and through this, movement in the direction of healthy public policy and practice (…)” Source: WHO Health Promotion Glossary, 1998.

<sup>12</sup> “Achieving the changes in risk factors and risk conditions that will result in health gain in populations requires the implementation of health promotion actions over years and decades. Attention needs to be given, therefore, to designing actions which have the potential for ongoing delivery and institutionalization after they have been evaluated and found to be effective. Health promoting policy, across a range of sectors, and modifying the physical environment in which people live have particular value because of their potential sustainability.” Source: WHO Health Promotion Glossary: new terms, 2006.
4.1 Health promoting schools Network in the Lombardy (Rete SPS Lombardia)

The Lombard Health Promoting Schools Network was born on the 14th of July 2011, when Lombardia Region and MIUR USR (Ministry of Education – Regional School Office) for Lombardy signed the Agreement "The Lombard Model of School Promoting Health", and became operational during the academic year 2012-2013 (192 Schools inclusive of about 190,000 students). The Network schools undertook to be "environment conducive to health" through evidence-based actions, belonging to different areas: Educational/Formative (life skills, curricular thematic programmes, etc..), Social (listening, collaboration, participation, etc.), Organizational (canteens, snack vending machines, fruit snacks, walking buses and cycle paths from home to school and extracurricular physical activity, smoke-free environment, etc..) and collaboration with others in the local community (Associations, etc..).

This strategy ensures schools activation (empowerment), with the scientific support of local health authorities where necessary, in order to strengthen competence and awareness about our health in the entire school community (parents, students, teachers, janitors) and to create an environment where the adoption of healthy behaviors is easy and rooted in the everyday culture. The methodological approach is provided by the health local unit to all the schools of the region. The Lombard Network of health promoting schools is a member of the Schools for Health in Europe network [http://www.schools-for-health.eu/she-network].

Figure 15 - Lombardia Health promoting schools Network website: http://www.scuolapromuovesalute.it

Figure 16 - N° of network schools per Province – Academic year 2012 - 2013

The workshop "Building the Network" took place in November 2012 in Iseo (Brescia). It was the first training initiative for Network School Directors leaders in Lombardy and it led to the release of a document entitled "Paper of Iseo" which contains the "minimal" and "common" operating elements of Network Schools considering some health determinants (healthy eating, physical activity promotion figure 17-, etc..).
**AREA: DEVELOPING INDIVIDUAL SKILLS**

- Provide theoretical / practical educational activities about physical activity benefits (arousing interest, developing knowledge and skills) and meetings or educational/training debates (in order to give the opportunity for dialogue and discussion with experts and peers)
- Insert more physical activity promotion among extracurricular activities (starting of specific courses about easily feasible activities - for example about the discipline of the march, the fitwalking or the Nordic walking, the orienteering)
- Provide training and support for teachers about data, benefits, methods and tools to facilitate physical activity promotion

**AREA: QUALIFYING THE SOCIAL ENVIRONMENT**

- Encourage the approach to sport through active and participatory testing of sport games (multisport day, mini-sports)
- Create new opportunities for physical activities during school hours (i.e. using school breaks) and promote and develop opportunities for active play (team games, the rediscovery of traditional games)
- Promote sports at school thanks to the experience of parents and volunteers active in this field

**AREA: IMPROVING THE ORGANITATIONAL AND STRUCTURAL ENVIRONMENT**

- Increase and enhance the physical education time (changing school day traditional structure, i.e. 1 hour of physical education five days out of five, involving children in choosing physical activities to be performed, suggesting non-traditional activities)
- Provide and use safe routes from home to school that encourage active modes of transport (walking bus, bicycle usage)
- Provide recognition (school credits) for students who participate in extracurricular physical activities for their efforts
- Increase and enhance the physical education time (changing school day traditional structure, i.e. 1 hour of physical education five days out of five, involving children in choosing physical activities to be performed, suggesting non-traditional activities)
- Provide and use safe routes from home to school that encourage active modes of transport (walking bus, bicycle usage)
- Provide recognition (school credits) for students who participate in extracurricular physical activities for their efforts

**AREA: STRENGTHENING COMMUNITY COLLABORATION**

- Encouraging extracurricular physical activity (suggesting activities that can take place outside of the school environment alone, with friends or family, providing opportunities for physical activities / sports for free or at subsidized prices by exploiting school rooms (gymnasiums, yards) and / or through the community, sports club and local authorities involvement (rooms, facilities)
- Organize projects, informative/training events to provide information and make conscious students, school staff, but also families and communities about physical activity importance and benefits
- Understand and valorize the resources and initiatives of the local community in relation to the promotion of physical activity and sport
- Participate in the design and care of the environment surrounding the school in order to make available and accessible areas and safe routes for playing, walking and cycling

### 4.2 Workplace Health Promotion - Lombardy WHP Network

The WHP Network was born in 2011 from the collaboration between Bergamo Health Local Unit and Enterprises Associations, Unions, Professional Groups, Scientific Societies and was recognized as “Best Practice” in a specific path carried out by the General Directorate for Health (DG Salute) and then turned on a regional scale with DGS Decree 11861 of 11.12.2012.
The WHP Network expanded on a regional scale during 2013 and today counts 200 companies (private, local health authorities, municipalities) recorded a total of about 85,000 workers involved. The Network is made up of companies ("Workplaces") which recognize the value of corporate social responsibility and undertake to be "environment conducive to health" systematizing, with the scientific support of Health Local Unit where necessary, actions [evidence-based] of different nature: informational (smoking cessation, healthy eating, etc.), organizational (canteens, snack vending machines, agreements with gyms, stairs health programmes, walking / biking from home to work, smoke-free environment, baby pit-stop, etc.) and collaboration with others in the local community (Associations, etc.). The Lombardy WHP Network belongs to the European Network for Workplace Health Promotion ENWHP (http://www.enwhp.org/the-enwhp/members-nco.html).

Figure 18 – Lombardia WHP Network website http://rethewhplombardia.org/

Figure 19 - Lombardia WHP Network Manual (Physical activity promotion area)
Figure 20 - Lombardia WHP Network Manual (Physical activity promotion area)

3.4

In-house information campaign concerning the promotion of physical activity and which includes:
- Posters beside lifts encouraging the use of the stairs (see attachment J for useful material);
- Promotional posters (at least 1 for every 70 employees);
- Messages in payroll packets (at least 3 a year) and/or messages on canteen table mats (for at least 3 months a year). See attachment J for useful material.

3.5

In-house sports activities: (tournaments, non-competitive runs/walks, brake rides and so on) at least twice a year.

3.6

A corporate walking group: meeting at least once a week all year round with the participation of at least 10% of all staff, and with a leader trained (free) by ASL.

3.7

An initiative proposed by the company but which is different from the previous ones, approved by WHP staff with evaluation of the achieved results.

Figure 21 - Lombardia WHP Network Companies that started recommended actions for physical activity promotion: actions type and number of employees involved for each activity

Source: database regionale WHP Lombardia – Anno 2013
4.3 Walking groups

The “walking groups” are groups of people who regularly meet to walk together. Initially led by operators and then gradually self-made through the formation of “walking leaders” identified among volunteers.

In March 2014, DG Salute has carried out a survey which took a picture of the development of this initiative, which has been activated by all the 15 local health authorities, through a participatory process with the involvement and activation of municipalities and associations. Farther walking groups arise also by actions undertaken by Network members (WHP, Health promoting schools Network, healthy cities, etc.).

The number of walking groups’ participants is 18,891 (Table 5), of which 11,488 are over 65 years old (61%).

Table 5 – Walking groups in Lombardy (updated March 2014)

<table>
<thead>
<tr>
<th>ASL</th>
<th>Total number participants</th>
<th>Participants over 65</th>
<th>Population rate % aged 65-74</th>
<th>Number of municipalities involved</th>
<th>% municipalities with walking groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bergamo</td>
<td>4475</td>
<td>2000</td>
<td>18%</td>
<td>93</td>
<td>38%</td>
</tr>
<tr>
<td>Brescia</td>
<td>890</td>
<td>478</td>
<td>4%</td>
<td>32</td>
<td>20%</td>
</tr>
<tr>
<td>Como</td>
<td>195</td>
<td>150</td>
<td>2%</td>
<td>10</td>
<td>6%</td>
</tr>
<tr>
<td>Cremona</td>
<td>173</td>
<td>130</td>
<td>3%</td>
<td>5</td>
<td>4%</td>
</tr>
<tr>
<td>Lecco</td>
<td>2615</td>
<td>1025</td>
<td>39%</td>
<td>46</td>
<td>55%</td>
</tr>
<tr>
<td>Lodi</td>
<td>180</td>
<td>120</td>
<td>5%</td>
<td>7</td>
<td>11%</td>
</tr>
<tr>
<td>Mantova</td>
<td>1316</td>
<td>987</td>
<td>22%</td>
<td>32</td>
<td>47%</td>
</tr>
<tr>
<td>Milano</td>
<td>1105</td>
<td>911</td>
<td>5%</td>
<td>4</td>
<td>57%</td>
</tr>
<tr>
<td>Milano 1</td>
<td>3620</td>
<td>3000</td>
<td>30%</td>
<td>52</td>
<td>71%</td>
</tr>
<tr>
<td>Milano 2</td>
<td>520</td>
<td>100</td>
<td>2%</td>
<td>14</td>
<td>26%</td>
</tr>
<tr>
<td>Monza and Brianza</td>
<td>400</td>
<td>400</td>
<td>4%</td>
<td>11</td>
<td>20%</td>
</tr>
<tr>
<td>Pavia</td>
<td>2260</td>
<td>1350</td>
<td>22%</td>
<td>84</td>
<td>44%</td>
</tr>
<tr>
<td>Sondrio</td>
<td>452</td>
<td>227</td>
<td>12%</td>
<td>14</td>
<td>18%</td>
</tr>
<tr>
<td>Varese</td>
<td>574</td>
<td>250</td>
<td>3%</td>
<td>0</td>
<td>6%</td>
</tr>
<tr>
<td>Valle Camonica 3.</td>
<td>316</td>
<td>300</td>
<td>27%</td>
<td>9</td>
<td>21%</td>
</tr>
<tr>
<td>Lombardy</td>
<td>14611</td>
<td>11488</td>
<td>11%</td>
<td>424</td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: Regional survey, March 2014

Figure 22 – Map of the population rate reached by walking groups in the population aged 65–74

![Map of the population rate reached by walking groups in the population aged 65–74](image)

Source: Regional survey, March 2014

Walking groups in Lombardy are currently organized into approximately 516 “routes”, that are groups of people who walk on different paths and / or at different times. 31% of these routes consist
of at least 20 people, while 69% of the lines consist of more than 20 people. Since 2009 the Health Local Health Units trained around 1,019 walking leaders and most of them prepared a training/updating manual for that role. (Table 6)

**Table 6 – Trained walking leader and walking groups lines**

<table>
<thead>
<tr>
<th>ASL</th>
<th>Trained walking leader (2009 - 2013)</th>
<th>LINES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number</td>
<td>With &lt;20 walkers</td>
</tr>
<tr>
<td>Bergamo</td>
<td>n.d.</td>
<td>93</td>
</tr>
<tr>
<td>Brescia</td>
<td>39</td>
<td>46</td>
</tr>
<tr>
<td>Como</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Cremona</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Lecco</td>
<td>159</td>
<td>57</td>
</tr>
<tr>
<td>Lodi</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Mantova</td>
<td>n.d.</td>
<td>40</td>
</tr>
<tr>
<td>Milano</td>
<td>33</td>
<td>19</td>
</tr>
<tr>
<td>Milano 1</td>
<td>371</td>
<td>104</td>
</tr>
<tr>
<td>Milano 2</td>
<td>184</td>
<td>32</td>
</tr>
<tr>
<td>Monza and Brianza</td>
<td>90</td>
<td>12</td>
</tr>
<tr>
<td>Pavia</td>
<td>50</td>
<td>127</td>
</tr>
<tr>
<td>Sondrio</td>
<td>35</td>
<td>14</td>
</tr>
<tr>
<td>Varese</td>
<td>15</td>
<td>27</td>
</tr>
<tr>
<td>Vale Camonica S.</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Lombardy</td>
<td>1019</td>
<td>516</td>
</tr>
</tbody>
</table>

Source: Regional survey, March 2014

In some areas of Lombardy walking groups offer is also addressed to target with specific problems of medical nature (Figure 23) and hospitals, social care, GPs can be directly involved in the programme. Further, the 2014 survey showed a new experience (Pavia Health Local Unit), providing the activation of parents walking group as part of the activities in the school setting (Figure 24).

**Figure 23 - Health Local Unit (HLU) that started walking groups addressed to target with specific medical problems.**

<table>
<thead>
<tr>
<th>HLU BG</th>
<th>HLU MI1</th>
<th>HLU MI</th>
<th>HLU CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CCV Risk Factors</td>
<td>• Cognitive Disability</td>
<td>• Motor Disability</td>
<td>• CCV Risk Factors</td>
</tr>
<tr>
<td>• Cognitive Disability</td>
<td></td>
<td></td>
<td>• Cognitive Disability</td>
</tr>
<tr>
<td>• Motor Disability</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Regional Survey, March 2014
Figure 24 – Picture of Walking groups meeting in Lecco area - ASL Lecco

Figure 25 - Playbill promoting walking groups leaded by parents - ASL Pavia
Figure 26 – Walking groups playbill – ASL Bergamo

Figure 27 – Walking groups playbill – ASL Bergamo

Figure 28 – Over 65 walking groups: playbill - ASL Monza Brianza

Figure 29 – Playbill concerning walking groups net development - ASL Milano 1
Health gain calculation in the short term (inside healthy lifestyles promotion programme) must rely on statistical models that can show how reducing one or more risk conditions may prevent death or adverse event in health.

WHO has developed one of these models: HEAT (an online resource: http://www.heatwalkingcycling.org) allows to estimate the reduction in mortality following a regular activity cycling and/or walking. It is based on the best available evidence, with parameters that can be tailored to suit specific situations (the default parameters are valid for the European context). Estimating a period of walking average of 120 minutes per week at a slow pace (two walks of 1 hour for 4.8 km / h) for participants to Lombardy walking groups (18,891 people), HEAT calculates that the activity may decrease the risk of mortality of 14% in walking groups participants compared to a sedentary population (limit: HEAT allows to estimate the impact in age range of 18-70 years, thus excluding those over 70 who are present in walking groups).

The decrease in risk cannot be related to the individual but it is a good representation of the actual health gain activity.
Figure 31 - Walking groups playbill - ASL Milano

"GRUPPI DI CAMMISO"
Promozione dell'attività fisica nella terza età
Vuoi dedicare un po' di tempo all'attività fisica?
Partecipa anche tu ai Gruppi di Cammino per camminare in compagnia!

LA PARTECIPAZIONE È GRATUITA

Figure 32 - Walking groups playbill - ASL Milano 2

CITTÀ DI Segrète
CAMMINARE INSIEME
Gruppi di Cammino

PERCORSO A
Corso Foscari, ore 9.30. Ritiro: birra via XXV Aprile
Gruppo: "Sagome nere"
Città passeggero: Lavinia, Lina, Anna, Graziella
Info: Anna Citto 646.000000 3120 20.04.90.20

PERCORSO B
terreno e domenica mattina ore 9.30. Ritiro: birra via Amendola
Gruppo: "Centro assicurazione Verdi"
Città passeggero: Lavinia, Lina, Anna, Grazia
Info: Anna Citto 646.000000 3120 20.04.90.20

PERCORSO C
terreno e domenica mattina ore 9.30. Ritiro: birra via Amendola
Gruppo: "Centro assicurazione Verdi"
Città passeggero: Lavinia, Lina, Anna, Grazia
Info: Anna Citto 646.000000 3120 20.04.90.20

Camminare rappresenta il modo più semplice ed economico per coinvoltere la popolazione in attività fisiche. Si parte da domenica 23 giugno e si cammina fino all'8-9 luglio.

Figure 33 - Walking groups playbill - ASL Lodi

Figure 34 - Guidelines for activation of walking groups - ASL Lodi
4.4 Walking buses

Walking bus project develops within community programmes with the activation of local governments, who are committed to support the development of best practices and effective action on its area (in collaboration with local schools, associations, etc.) in order to create conditions and opportunities that facilitate healthy lifestyles to their citizens (cycle paths, pedestrian areas, healthy menu choices in public canteens, etc.).

Walking bus consist in the organization of safe pedestrian pathways from home to school that were normally traveled by bus or by car. Children go to school on foot, accompanied by adult volunteers and along a predetermined route with stops.

In March 2014, DG Salute has carried out a survey which photographed the development of this project, which is present on all 15 Lombardy Health Local Units.

The municipalities that have activated the Walking bus are 341 that corresponds to the 22% of Lombardy municipalities. 57 % of children between the age of 6 and 10 years who live in Lombardy go to school by the walking bus.

The number of schools involved is 501: about 21% of Lombardy primary schools provide the walking bus service.
### Table 6 – Walking buses in Lombardy: data per Local Health Unit (ASL)

<table>
<thead>
<tr>
<th>ASL</th>
<th>n° of children involved</th>
<th>Rate %</th>
<th>n° of School</th>
<th>% School</th>
<th>n° of Municipalities</th>
<th>% Municipalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bergamo</td>
<td>6033</td>
<td>106</td>
<td>104</td>
<td>32</td>
<td>84</td>
<td>34 %</td>
</tr>
<tr>
<td>Brescia</td>
<td>4863</td>
<td>83</td>
<td>70</td>
<td>26</td>
<td>54</td>
<td>33 %</td>
</tr>
<tr>
<td>Como</td>
<td>1166</td>
<td>42</td>
<td>28</td>
<td>15</td>
<td>17</td>
<td>10 %</td>
</tr>
<tr>
<td>Cremona</td>
<td>766</td>
<td>48</td>
<td>17</td>
<td>16</td>
<td>13</td>
<td>11 %</td>
</tr>
<tr>
<td>Lecco</td>
<td>3110</td>
<td>191</td>
<td>55</td>
<td>50</td>
<td>40</td>
<td>44 %</td>
</tr>
<tr>
<td>Lodi</td>
<td>480</td>
<td>43</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>8 %</td>
</tr>
<tr>
<td>Mantova</td>
<td>445</td>
<td>24</td>
<td>19</td>
<td>17</td>
<td>11</td>
<td>16 %</td>
</tr>
<tr>
<td>Milano</td>
<td>602</td>
<td>9</td>
<td>25</td>
<td>10</td>
<td>1</td>
<td>14 %</td>
</tr>
<tr>
<td>Milano 1</td>
<td>2159</td>
<td>48</td>
<td>45</td>
<td>25</td>
<td>25</td>
<td>34 %</td>
</tr>
<tr>
<td>Milano 2</td>
<td>1624</td>
<td>51</td>
<td>31</td>
<td>27</td>
<td>22</td>
<td>42 %</td>
</tr>
<tr>
<td>Monza e Brianza</td>
<td>2227</td>
<td>54</td>
<td>40</td>
<td>24</td>
<td>23</td>
<td>42 %</td>
</tr>
<tr>
<td>Pavia</td>
<td>1350</td>
<td>59</td>
<td>19</td>
<td>12</td>
<td>15</td>
<td>8 %</td>
</tr>
<tr>
<td>Sondrio</td>
<td>257</td>
<td>31</td>
<td>9</td>
<td>12</td>
<td>5</td>
<td>6 %</td>
</tr>
<tr>
<td>Varese</td>
<td>800</td>
<td>19</td>
<td>18</td>
<td>31</td>
<td>13</td>
<td>9 %</td>
</tr>
<tr>
<td>Valle Camonica Sebino</td>
<td>747</td>
<td>160</td>
<td>16</td>
<td>7</td>
<td>13</td>
<td>31 %</td>
</tr>
<tr>
<td>Lombardia</td>
<td><strong>26629</strong></td>
<td><strong>57 %</strong></td>
<td><strong>501</strong></td>
<td><strong>21 %</strong></td>
<td><strong>341</strong></td>
<td><strong>22 %</strong></td>
</tr>
</tbody>
</table>

Source: Regional survey, March 2014

**Figure 37** – Map of the population rate involved in walking buses in the population aged 6-10

Source: Survey regionale, marzo 2014
Figure 38 – Walking buses in Livigno - ASL Sondrio

Figure 39 - Picture of walking buses in Lecco, published in 2009 on New York Times (http://www.nytimes.com/2009/03/27/world/europe/27bus.html?_r=0)
4.5 Stairs for Health

The project called “Stairs for health” has spread throughout the region (within the WHP programme and other community programmes). The promotion of stairs use is one of the most simply and effective community interventions in counteracting the sedentary lifestyle and increasing physical activity; systematic reviews of the literature have shown that the use of written warnings about replacing elevator or escalator with stairs, placed at strategic points, push people to be more active.

The intervention was effective in many different situations: department stores, train stations, university libraries, banks, offices; and in different population groups: men and women, young and old people, normal weight and obese people.

The recommended intervention, consist in exposing next to the point where you have to choose whether to make the pathway on foot or by the elevator posters / banners / placards / etc. that encourage people to use the stairs, illustrating health benefits of physical activity and stressing that this simple choice could represent a very easy opportunity to make more active our lifestyle (if stairs are far from the elevator, point the warning next to the elevator push button).

Published studies have been consistent in detecting a change in behavior immediately after the intervention, but a prolonged observation has shown an attenuation of the effect: for this reason it is useful providing periodic recall actions / reinforcement (i.e. communications on the company website, contests of ideas among employees for the production of promotional images, press conferences, etc.).

Figura 40 - Communication campaign “Stairs for Health” ASL Brescia

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15 Source: Regione Lombardia “Informational Schedule about the promotion of physical activity programmes thorough the call “use the stairs in replacement of the lift” powered by U.O. Governo della Prevenzione e Tutela Sanitaria – January 2010
Among the experiences of communities not spread throughout the entire region, it should be noted the initiative “Health Pills - Free Trials of movement” made by “GIRETTO - Social Promotion Association” on the territory of the Health Local Unit of Lecco. This project consists in the proposal of free physical activity hours, offered by sports clubs and recreational groups, to people usually not involved or related to physical activity. The initiative started in 2012 with the support of Lecco Province (Department of Sport, Federfarma, ACEL, provincial section of CONI, with the collaboration of recreational associations, sports clubs, non-profit organization Association of Lecco Young Diabetics, Lecco Hypertensive Association, the Italian Union for the Blind) and the technical and scientific support of Lecco Health Local Unit.

Using a social marketing method, the initiative adopted as a communication tool / supply, a box called “health pills” since it has the shape of a drug box (10,000 copies distributed in all the pharmacies of the province) that contains:

- The “leaflet” prepared by the Health Local Unit showing the medical and scientific information that demonstrates the health benefits derived from an active lifestyle;
- 35 coupons for free access to sports facilities, gyms, classes, pools
- A list of all the sport clubs participating in the initiative explaining what kind of sport experience they can offer.

The distribution in pharmacies was completed in December 2012, but the project continues on [http://www.pilloledisalute.giretto.it](http://www.pilloledisalute.giretto.it), a website where citizens can keep up to date about sport club participating to the initiative and can download free coupons.

### 4.6 The European Innovation partnership on Active and Healthy Ageing

The European Commission, within the overall Innovation Union strategy\(^\text{14}\), has identified “active and healthy ageing” as a major societal challenge common to all European countries, and an area which presents considerable potential for Europe to lead the world in providing innovative responses to this challenge.

Started in November 2011, the European Innovation Partnership on Active and Healthy Ageing (EIP-AHA)\(^\text{15}\) has the goal to pursue a triple win for Europe:

1. enabling EU citizens to lead healthy, active and independent lives while ageing;
2. improving the sustainability and efficiency of social and health care systems;

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3. boosting and improving the competitiveness of the markets for innovative products and services, responding to the ageing challenge at both EU and global level, thus creating new opportunities for businesses.

This will be realised in the three areas of prevention and health promotion, care and cure, and active and independent living of elderly people. The overarching target of this partnership will be to increase the average healthy lifespan by two years by 2020.

The Partnership aims to achieve this by bringing together key stakeholders (end users, public authorities, industry); all actors in the innovation cycle, from research to adoption (adaptation), along with those engaged in standardisation and regulation. The partnership provides these actors with a forum in which they can cooperate, united around a common vision that values older people and their contribution to society, identify and overcome potential innovations barriers and mobilise instruments.

Furthermore six action groups have been identified for specific areas of intervention:
1. Prescription and adherence to treatment
2. Personalized health management, starting with a Falls Prevention Initiative
3. Prevention and early diagnosis of frailty and functional decline, both physical and cognitive, in older people
4. Replicating and tutoring integrated care for chronic diseases, including remote monitoring at regional levels
5. Development of interoperable independent living solutions, including guidelines for business models

The Partnership aims at improving the framework conditions for uptake of innovation, leveraging financing and investments in innovation and improve coordination and coherence between funding for research and innovation at European, national and regional level in Europe.

Lombardy joint the EIP-AHA in February 2013 providing its commitment focused on the “Innovation for Age-friendly buildings, cities & environments” area and targeted on the health promotion in Lombardy local communities (cities) in terms of success factors for healthy ageing. Lombardy participation to the EIP-AHA has the twofold objective to support the governance role of the region and its healthcare system by sharing, at European level, notable and effective experiences already implemented on the territory addressing health promotion and prevention, and to enhance the coherence of the regional strategies on these areas of intervention with the priorities identified at European and International level (WHO). In this light, the EIP-AHA represents a unique platform to foster the participation of the regional health system stakeholders – namely the Local Health Units and professionals – to a transnational initiative enabling mutual learning and the set-up of new alliances with reference networks.

More specifically, the Walking groups programme has been offered at the attention of the EIP-AHA initiative as a good practice deployed across the whole regional territory and implemented, under the coordination of the regional government, through the complementary contribution of different players such as the Local Health Units, professionals, citizens and municipalities. More information on Lombardy Walking groups programme and other European practices can be found on the first edition of the compilation of good practices report issued in the framework of the EIP-AHA16.

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16 http://ec.europa.eu/research/innovation-union/index_en.cfm?section=active-healthy-ageing&pg=documents
Figura 42 – Cover page of the first edition publication “A Compilation of Good Practice”
Promotion of physical activity
and contrast to sedentary lifestyle:
public health programmes in Lombardia

Report May 2014

http://www.promozionesalute.regione.lombardia.it

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