STRATEGIES FOR HEALTH ENHANCING PHYSICAL ACTIVITY (HEPA) PROMOTION TO PREVENT OBESITY AND TYPE 2 DIABETES IN ITALY

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CONTENTS OF THE DOCUMENT

• Strategies to promote physical activity and exercise in school settings
• Strategies to promote physical activity and exercise in family settings
• Strategies to promote physical activity and exercise in urban environment
• Strategies to promote physical activity and exercise in workplaces
• Strategies to promote physical activity and exercise in the healthcare settings
• Strategies to promote physical activity and exercise in the leisure time and active and healthy tourism
• Strategies to promote physical activity and exercise in sport settings
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Introduction

The European Union and the WHO Europe are strongly promoting policies to support HEPA (Health-Enhancing Physical Activity). Promoting physical activity for healthy purpose is essential to counteract the pervasive sedentary lifestyle that leads to the progressive increase of obesity, diabetes and other chronic non-communicable diseases (cardiovascular diseases, chronic respiratory diseases and cancers). Italy is not very active in this field with respect to the other European countries and it is the country with the highest rate of obesity and overweight in children.

The 1st Diabetes Prevention Conference was founded with the aim of gathering the experts’ advices in a document about the possible cross-sectorial strategies to promote physical activity in Italy for a healthy purpose (HEPA).

This document is to be intended as a stimulus for a deep reflection on the lacks in our system and on the possible solutions to be adopted for the diabetes and obesity epidemics reduction. Last August a serious intervention in favor of HEPA and specific recommendations through which urgent and systematic actions has been requested by the European Council to the state members. The data collected by the C.O.N.I. (Italian Olympic Committee) demonstrate that HEPA policies are urgent in Italy. In 2012, Italians who declare to have a sedentary lifestyle are more than 23.032.000, that means 39% of the entire population with a slight reduction in
comparison with 39.8% of the population recorded in 2011. Conversely, according to the latest estimates published by Istat (National Institute of Statistics), people over 3 year aged who claim to actively practice sports on an ongoing basis are 12,867,000, that is 21.9%. Another 9.2% occasionally practice sports (almost 5 million and half), while a large group (29.7%) practices only some physical activities: it is over 17,156,000 Italians who walk at least for 2 kilometers, swim, cycle or carry out other forms of physical activities in their free time. The local data show a different attitude to sport among the Regions of the Country, that also reflects a different availability of organized structures. There is a North-South gradient in regular sporting activities (North, 26.6%; Centre, 24.5%; South, 16.8%), inversely proportional to the obesity rate.
URGENT ACTIONS

In Italy it is necessary to increase physical activity culture for health purpose. All the experts agreed on the need of two possible actions to be implemented by the end of the Italian Presidency of the European semester:

- Parliamentary fact-finding investigation on HEPA
- National plan for HEPA

The consensus, here below reported, could contribute to the drafting of the National Plan for the HEPA required by the Recommendations of the Council of Europe (curiamo.unipg.it/news/com-2013-603-final-council_recommendation-hepa_it.pdf).
Strategies for the promotion of physical activity and exercise in school settings

Exercise at schools is generally intended as compulsory physical activity. Indeed, it also means physical activities carried out in the school settings, in the schoolyard during the recreation, during individual subjects teaching and in optional school sports. Exercise at school also includes a comparison with topics concerning the promotion of physical activity. The education to exercise and to physical activity promotion is a training task of the school giving a relevant contribution to the health promotion, to the attention span, to the cognitive abilities and to the personality training.

The current strategies (National Plan for the promotion of sport at schools, the new Youth Games and the intervention for the promotion of Student Sports Games) can be integrated by initiatives at a general or local level.

Macro-level

- Establishment of a system enabling to participate to the EU projects and funding raise as a access information facilitator for schools
- Compulsory physical activities in primary schools
- Increasing of the number of hours of physical activity in schools in order to reach the European average, especially in the primary school
- Functional redesign of the school spaces and care of the school structures
- Encouraging mobility of students and lecturers: Erasmus plus to achieve skills and best practices
- Health education in schools with the support of the National Health System
- Information/training times on the benefits of the physical activity with students’ families
- Sport as a pedagogical tool
- Movement education and physical activity promotion as a topic to be discussed in the communications with parents.

Micro-level

- Increasing the safety to promote active walking/biking in "home-school" journey in collaboration with the city/municipality services (Pedibus)
- Motivating parents and students in considering the journey from home to school as a valuable opportunity to promote physical activity
- Encouraging shared moments of parent-child gym and involving parents in physical activity
- Raising the awareness of parents to take advantage from training opportunities to implement their expertise in the promotion of physical activity
- Training the parents on indoor exercise to do at home and motivate them to support their children in this activity (sports passport)
- Forming walking groups and promoting educational active travels with teachers and students (trekking, biking, etc.)
- Playdagogy: games and active motion games
- Education and guidance for families (evaluation of physical activity): sports passport
- Educational active travels for teachers and students (trekking, biking, etc.)
Strategies for the promotion of physical activity and exercise in family setting

Despite of the structural changes of the modern family, this is still a primary site for the promotion of the sport culture as well-being and its values. There is a need to promote physical activity through a family culture attentive to the primary role of the family in the process of education to the physical activity in the dynamics of transition/conservation from the playtime to the exercise. The most recent researches, in fact, show that only programs that actively involve the family in physical activity can have both short, and long-term positive effect. The work should be therefore oriented in order to connect the two pillars of the educational agencies: school and family.

Suggested strategies:
- Information campaigns to raise awareness on health issues
- Organization of conferences on specific topics with the active involvement of parents
- Physical activity education in the family and among families
- Security, usability and re-appropriation of spaces
- Organization of groups of families in the parks for the community practice of physical activity
- Enhancement of the active role of the father in doing sport together
- Connection between physical and socio-affective education
Strategies for the promotion of physical activity and exercise in the urban environment

- In Italy there is no strategy to use cities as open-air gyms (despite the favorable climate and available spaces). Culture in this sense is lacking as well as a clear connotation of the use of public spaces. The socio-economic aspect is not a priority; instead there is a different perception of public and private asset. Today, in Italy sports practice seems mainly to be confined to private and public equipped sports facilities, in any case represented by confined spaces and not available for most of the people. With regards to the allocation of facilities, there is always in Italy a longstanding debate whether the low propensity of Italians to sport depends on the lack of dedicated facilities; also local institutions often complain that the inability to promote projects and policies for sport is to be attributed to the low provision of sports facilities.

- In Italy the idea that physical activity can be practiced outdoors and in the existing public spaces, used as if they were spontaneous structures in which you can exercise in an informal way and open-air, is a minor attitude than in other European Countries. European data on the number of people who prefer to practice physical activity in open air spaces shows that this is an already well-defined trend in many Countries. In an absolutely not perceptive manner, data shows how the outdoor sports gradually decrease as we move towards the southern Europe Countries, where in fact the milder and favorable climatic conditions may be an incentive. Looking at what is happening in other European Countries, some experts point out that the fear of urbanism prevails in Italian cities, the restraint tactics, the closing operations, while, for example in the Spanish cities, the challenge takes place on the ground of openness and permanence of public space as the essence of the city: a living space, a bodies space.

- Besides to improve European citizens’ health, sport has an educational dimension and plays a social, cultural and recreational role, and can therefore be an important factor for the society progress. Returning the sport to the public spaces can also contribute to the re-appropriation of them by citizens, by helping it not to close itself into the places and the structures where it is today confined, by thinking it back as an important function for the quality and livability of our cities and at the same time by promoting the health and well-being and rebuilding a stronger link with places and with the territory. This assumes the rethinking and redefinition of the concept of sport and its dedicated places together with the promotion of physical activity.

- Several European cases and experiences of using public spaces for the practice of sports show how it is possible to imagine innovative and experimental solutions to integrate the sport with the local social welfare and the public spaces of the city. This way of looking at sport requires a “trained” eye to the complexity and the multidisciplinary from the world of sports, of institutions, of research enabled to see the integration between different worlds and disciplines as an opportunity for mutual enrichment and a tool to promote the advancement of reflection. In its urban enlarged dimension, the architectural project becomes an instrument of mediation between different subjects who define choices and face with future structures of a city and a territory. The public space is not a residual space between the street and buildings, nor an empty space considered public only by legal reasons. Public space is a physical, symbolic and political space. It’s a space for a common use. Parks, squares, sports fields, are public spaces, but in our cities they are always less characterized as public places frequented by people; places where to build relationships with others. These spaces are often unsafe, degraded, rarely visited and deserted. They are places of social and urban degradation.

It therefore concerns potential public spaces, pending new semantic meaning: areas at the margins of the roads, unused open spaces, residual areas within the urban buildings, suburban disused areas, old unused industrial settlements, and numerous other examples of
territories could be transformed into aggregating, sporting, free time places. Places able to create identity, belonging, affection by the visitors. This is the only way able to raise the respect among people for the public assets and the interest in the spontaneous outdoor sport, in public spaces visited by all the citizens. Since the need to practice open-air physical activities in our Country will be significantly increased only when the square, the park, playground, running trails will became part of a ritual shared by the community.

**Strategies to be undertaken:**

- improvement of environmental quality (air, water, soil)
- reduction of parking areas and recovery of spaces to be allocated for various common uses
- enhancement of the conditions of accessibility of green areas
- easier accessibility, usability, services to promote sustainable mobility (bicycles, electric cars, car sharing, bike sharing)
- quality, safety and visibility of routes (tracks and cycle-pedestrian crossings, road signs, etc.)
- permeability of the yards where to practice sports and reconnection of open spaces for a public common use
- redesign of the school-home trails in favor of pedestrian mobility (widening and safety of the sidewalks)
- redevelopment of public facilities and redistribution of the indoor spaces and time dedicated to the physical activity
Strategies for the promotion of physical activity and exercise in workplaces

The internal gross income is increased by 1% by the reduction of 10% of the risk of cardiovascular diseases. This justifies the incentives promoted by HEPA given to the companies. Only 2% of the population currently practice physical activity at work in the private sector. The World Economic Forum has issued a document on the benefits of physical activity in terms of reduced absenteeism and increased productivity.

**Strategies to be undertaken:**
- providing companies with tax incentives to build shower equipped gyms and “dedicated time” inside the workplaces
- stakeholders involvement (middle management, unions, Social Security, Ministry of Health) making their commitment public
- offering career progressions of tax/regulations facilities according to the subjects
- acting with insurances to reduce insurance premiums:
  - for the interested Companies
  - for the workers who will be actively involved and get tangible results
- ensure the gyms with a bonus for subsidized subscriptions in favor of the workers by prior agreements

**Prompt sustainable strategies:**
- enrolling trainers by contract indicating clear individual goals to the workers
- educational activities within the Companies on the benefits of healthy lifestyles
- facilitating agreements with external gyms for people who demonstrate by specific indicators a real commitment in the project
- monitoring the performance of the proposed activities and ask workers to give a periodic feedback on the effectiveness of the project
- including the topic of workers’ wellness programs on the occasion of the Unions bargaining
  - Create public spaces
  - Highlight the advantages and the benefits
  - Redefining work schedules
  - Canteens with nutritionist
  - Distribution of healthy food in vending machines
Strategies for the promotion of physical activity and exercise in the healthcare settings

The implementation of physical activity in the population remains an unsolved problem for the healthcare settings due to a variety of factors connected to the healthcare organization (lack of the resources, different actors, lack of consideration from the patients and also from some of the healthcare subjects, also including the institutional decision-makers). Any hypothesis of eligibility or inclusion in the Essential Levels of Assistance (LEA) or tax deductibility for expenses incurred for physical activity results to be missing to date. There are no strategies univocally accepted to date, but most of the activities are carried out on a voluntary basis by the General Practitioners or by specialists with a particular interest on this matter. Evidently, due to their position as first point of contact between the NHS and the entire population, General Practitioners are in a privileged position to effectively implement primary prevention in subjects at risk (evaluation of familiarity) and the health improvement in general. The specialists’ position, both individually and within the specialized healthcare centers, results to be at a secondary level of prevention (treatment of obesity and type 2 Diabetes), particularly in achieving the metabolic control, in the prevention of disease progression and the complications’ process.

These differences give the reason for a different consideration dedicated to the not conditioning physical activity by the healthcare network actors, that can be encouraged and implemented by a brief counseling, supported by educational/informative material or by a structured counseling. In order to be really effective, the latter may require the presence of trained personnel with different skills, by integrating the nutrition counseling with the physical activity one.

On the top of this pyramid there is the structured exercise which implies a precise customization and monitoring. In the presence of overt Diabetes physical activity becomes in fact a therapeutic tool and as such, it must be customized and implemented according to the specific characteristics of the patient (conditioning physical activity) in order to reach an effective therapeutic effect.

Strategies to be undertaken:
- Specific university and post university training on HEPA
- Training of the General Practitioners and Specialists
- Identification of the population at risk through shared strategies carried on by the General Practitioners
  - specific questionnaires (FINDRISC)
  - measurement of waist circumference
  - questionnaire on the energy expenditure related to the physical activity
- Production of tools for brief counseling
  - Food and physical activity diary
  - Use of the pedometer as a motivational tool
  - Tax relief on the expenses for physical activity in individuals at risk
  - Agreements with sports clubs or gyms for costs reduction
  - Use of the information technology to promote/encourage the adherence to structured counseling programs (web-based).

The integration between drug, nutritional therapy and physical activity sets in a patient-centered context with the Specialists, General Practitioners and other figures around, including dietitians, nurses, psychologists, physical therapists, graduates in physical education in a holistic and integrated management of diseases due to altered lifestyles, particularly to sedentary. In this perspective, drug therapy may act very differently
according to the contexts; in some cases it may be a motivating factor for physical activity, being in fact much more effective than physical activity in metabolic control, in other cases it becomes a motivating factor, insofar improvement in metabolic parameters induced by physical activity allows the optimization and reduction of drug therapy itself. At the same pharmacological dose, the physical activity always allows an improvement of metabolic case, but should be avoided the possible risks related to it (trauma, hypoglycemia in diabetes), patients who may discourage commitment by patients. Only physical activity carefully monitored may be a harbinger of positive results in complete safety.

The integration of the activities in respect of skills, should always include:
- training activities dedicated to all stakeholders in the healthcare
- educational activity dedicated to the patients (to safely practice physical activity).
Strategies for the promotion of physical activity and exercise in the free time and active healthy tourism

Tourism can become a healthy tool. This is implied in the concept of “active” tourism. Urban or suburban trekking, also linked to a cultural tour or a tasting well-balanced journey, an amateur sporting event organized in another city or in another Country of tourist interest, a trip to the mountains, a climb or a cross-country skiing trail, by canoe, by bike, organized by sporting associations and organizations, are all examples of healthy tourism. The active tourism and free-time physical activity can be promoted through the communication and the information:

- at school level: organization of excursions based on the concept of “active tourism”, combining a cultural destination with walking or cycling routes
- at family level: fostering weekend trips that involve walking/cycling routes

In general we can identify the following actions to be put in:

- Involvement of the media in the promotion and dissemination of information related to possible routes / destinations characterized by the “healthy” tourism idea (press releases issued by associations dedicated to the promotion of physical activity in synergy with tourism institutions as a means of health)
- Increasing the availability of safe cycle tracks and making more convenient the use of active travel than passive (see the example of the successfully intervention done in Copenhagen)
- Publicizing urban/suburban trekking, active trips, etc. on social media pages or websites managed by associations dedicated to the promotion of physical activity; linking to website agencies that organize city tours on foot or by bicycle
- Following the example of the “Camino de Santiago de Compostela”, valuing Italian routes (ex. St. Francis’ route) that would promote active tourism of considerable importance also in economic terms.

Political and economic strategies required:

- Political strategies:
  - At national level: tourist enhancement of Parks and Urban Trails (connecting the main points of interest of the city), increase of the network of cycle paths also using riverbanks, disused railway lines and creating a real integration with road, rail, river and naval transport (ex. bike racks on buses). Green spaces and proper areas for physical activity widely distributed in the urban context (Km 0 sporting)
  - At a local level: maintenance of tourist interest parks, organization of guided tours (Department of Tourism of Local Authorities) shows, markets and exhibitions

- Economic strategies:
  - Taxation (detraction or deductibility of expenses related to certified health tourism activities)
  - Promotion of activities by tour operators or associations dealing in ‘active’ tourism (CAI, archaeological groups, etc.), promotion of packages to be offered to the companies, industries and organizations for their employees
  - Hotel circuits/cruise ships/resorts that organize sports weeks/dance workshops
Strategies for the promotion of physical activity and exercise in sport settings

In sport settings, physical activity and exercise can be rendered in a dual expression: 1) addressed to the population as a whole 2) addressed to people affected by pathologies. For the first category it is necessary to distinguish aggregative sporting activity from the agonistic one. The preparation of the first National Plan for Sports Structures and Services is requested on the territory with the creation of the website "Map of the Movement"- passport of journey and health cities, finalized to collect information from local authorities on personal life journey, trials, city routes, cycle paths, walking and cycling trails of the area used by a growing number of citizens.

Exercise therapy as a therapeutic tool, by implementing the Guidelines to define the parameters, times, the dosages, the checks and controls, is proposed for the second category including people suffering from diseases, such as diabetes and obesity.

For both categories a change is needed, as well as to spread, coordinate and support several initiatives already implemented in the sports field and the continuity of physical activity, making sure that the best practices already implemented will be intended as a positive model to be extended throughout the Nation. The activities of those sports societies that promote a culture of physical activity in young people rather than the mere pursuit of sporting talent should be especially encouraged. This type of "sports policy" is one of the main causes of desertion of sports practice by young people.

The implementation of a sports promotion plan as movement and psychophysical balance culture will allow certain savings on the national health expenditure. In the near future it will help to prevent the occurrence of complications for people already suffering from chronic diseases and to reduce the risk of occurrence of diseases in new subjects.

CONCLUSIONS

Scientific literature data allow us to confirm that policies promoting HEPA (physical activity for healthy purposes) produce a convenient cost effectiveness and cost benefit effect, consequently they arise wealth and welfare in the Nations adopting them.
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