New competences to manage urban health: Health City Manager core curriculum

Andrea Lenzi¹, Stefano Capolongo², Gualtiero Ricciardi³, Carlo Signorelli⁴, David Napier⁵, Andrea Rebecchi⁶, Chiara Spinato⁷

¹University of Rome La Sapienza, Dept Experimental Medicine; ²Department of Architecture, Built environment and Construction engineering (ABC) - Politecnico di Milano; ³Università Cattolica del Sacro Cuore in Rome; ⁴Università Vita-Salute San Raffaele in Milan; ⁵University College of London (UCL); ⁶Department of Architecture, Built environment and Construction engineering (ABC) - Politecnico di Milano; ⁷Chiara Spinato, Health City Institute

Summary. A core curriculum is an essential step in development knowledge, competences and abilities and it defines educational content for the specialized area of practice in such a way that it can be delivered to new professional job. The Health City Manager core curriculum defines the strategic aspects of action to improve health in cities through a holistic approach, with regard to the individual, and a multi-sectoral approach, with regard to health promotion policies within the urban context. The Health City Manager core curriculum recognizes that the concept of health is an essential element for the well-being of a society, and this concept does not merely refer to physical survival or to the absence of disease, but includes psychological aspects, natural, environmental, climatic and housing conditions, working, economic, social and cultural life - as defined by the World Health Organization (WHO). The Health City Manager core curriculum considers health not as an "individual good" but as a "common good" that calls all citizens to ethics and to the observance of the rules of civil coexistence, to virtuous behaviours based on mutual respect. The common good is therefore an objective to be pursued by both citizens and mayors and local administrators who must act as guarantors of equitable health ensuring, that the health of the community is considered as an investment and not just as a cost. The role of cities in health promotion in the coming decades will be magnified by the phenomenon of urbanization with a concentration of 70% of the global population on its territory.

Key words: urban health, public health, Health City Manager, core curriculum

Introduction

The concept of health is essential to the well-being of a society. This concept, as defined by the World Health Organization (WHO), relates not merely to physical survival or the absence of disease, but includes psychological factors, natural, environmental, climate and housing conditions and working, economic, social and cultural life. Cities play an important role in health promotion owing to the phenomenon of urbanisation, with 70% of the world's population living in urban areas.

The EU Committee of the Regions during its 123rd plenary session, 11-12 May 2017, approved the

own-initiative Opinion "Health in cities: the common good". The Opinion calls for more effective and responsive multilevel governance to improve health policy and design a fair, shared, harmonious urban system and suggest evaluating the benefits of establishing the post of a healthy city manager and it suggested that cities which do not yet have such a service should evaluate the potential benefits and costs of establishing the post of a HEALTH CITY MANAGER, who would interpret the needs expressed by the city and guide the improvement process in synergy with local authorities by aligning their policies and ensuring their implementation. In December 2017, Italian Minister of Health and President of Italian Municipalities Association (ANCI) during the G7 side event signed the Urban Health Roma Declaration. The declaration has underlined the necessity of a strong alliance between Municipalities, Universities, Health Centres, Research Centres, Industry and Professionals to study and monitor the determinants of citizens' health at an urban level and it suggested in the same time the creation of a HEALTH CITY MANAGER figure, able to guide the process of health improvement in urban areas in synergy with local and sanitary administrations.

Health City Institute, in partnership with EU-PHA-Urban Health and WFPHA, has developed a core curriculum to define the HEALTH CITY MANAGER knowledge, competences and ability.

Learning degree and professional profile

The HEALTH CITY MANAGER must have acquired transversal and interdisciplinary knowledge in:

- promotion of health and well-being, prevention through the adoption of correct lifestyles of communicable and non-communicable diseases typical of urban areas, in synergy and collaboration with the Authorities responsible for Public Health and Prevention, as well as the Health Professions of the territory;
- assessment of the social and psychological impact of urban life on the quality of life of the citizen with specific attention to situations of greater fragility and to the weak categories of the population in order to achieve improvement;
- city architecture, urban planning and territorial planning, both in terms of the functionality of the city areas and the activation and coordination of participation processes, together with the ability to read, integrate and coordinate the plans aimed at governing the territory and transforming urban contexts;
- capacity for political-administrative dialogue at the various institutional levels, in respect of mutual prerogatives, and interaction with the informal / horizontal levels for the management of the city;
- management of relations for the finalization and measurement of public policies implemented according to adequate timelines and criteria for the replicability and scalability of the project.

The Health City Manager gains professional skills in public health management, sociology and psycho-sociology of communities, urban architecture and control in reducing social and health inequalities.

Duration of the course is determined in University Educational Credits (CFU): each CFU corresponds to 25 hours of student learning. Being a highly theoretical learning, each CFU corresponds to 8 hours of lectures and 17 hours of individual study. The duration of the course will be 80 hours of frontal teaching for a total of 250 hours of student learning and 10 CFU. Degrees valid for access to the course are Master's Degree (MD) achieved in the fields pursuant to Ministerial Decree 22 October 2004, No. 270; Master's Degree (LS) obtained pursuant to Ministerial Decree of November 3rd 1999, n.109, to the previous equivalent; Diploma (DL) referred to the previous equivalent regulations; foreign equivalent qualifications equivalent. (figure 1).

Degree of knowledge

Superficial: the student has heard of it

General: the student knows how to frame the topic within the overall knowledge

Detailed: the student must know the subject in a comprehensive way in relation to training needs

Degree of competence

Mnemonic: the student remembers what he has learned

Interpretative: the student knows how to apply lessons learned to interpret data or phenomena, related to a context he has witnessed or to a problem that has been faced and solved by others

Decisional: the student knows how to apply lessons learned to solve problems personally and make autonomous decisions

Degree of ability

Not required: the student does not have to apply the knowledge or the competence

General: the student is able to carry out the activity in cooperation

Autonomous: the student has to accomplish the activity autonomously

Figure 1. Learning degrees

Knowledge, competences and abilities of the Health City Manager

The following table 1 identifies ten priority objectives on Urban Health, the related activities and the knowledge, competences and abilities to be required to the Health City Manager.

Conclusion

The function of Health City Manager is the product of a wider consideration process started by the

Health City Institute think tank on the main issues of its surveys, namely health in cities and the impact of urbanization on health determinants.

What clearly emerges from this consideration is the need to adopt a new interpretation paradigm, which takes into account a multidisciplinary approach to this issue and the need to achieve a complete involvement at level of local institutions, represented by Administrations and Health Units. These institutions can have a faster and deeper impact on the quality and on the lifestyles of citizens through goal-oriented public policies. New welfare and care models should therefore be

| Table 1. Health city manager – core curriculum | | | | | | | |
|--|---|-----------|----------------|--|--|--|--|
| Objective | Activities | Knowledge | Competences | Abilities | | | |
| 1. Health and urban public policies: innovative models of governance, multilevel and multidis- ciplinary | • Knowing how to analyze the urban context from a health perspective | General | Interpretative | Not required | | | |
| | Involving citizens in choices according to the "health in all policies" approach | General | Interpretative | General | | | |
| | Engage local administrations in promoting the health of citizens by studying and monitoring the health determinants specific to their urban context, leveraging the strengths of cities and drasti- cally reducing health risks | Detailed | Decisional | Autonomous | | | |
| | • Promote public-private partnerships for the implementation of policies and consequent strategic actions | Detailed | Decisional | Autonomous | | | |
| 2. Literacy and acces- sibility to information and health education, including in schools | • Promote training courses at regional or local level addressed to social and health workers, health professions and patient associations to allow them to assess the degree of understanding of the citizen and express themselves accordingly with compatible and effective language | General | Interpretative | General | | | |
| | Allow citizens, patients and their associations to communicate easily and promptly with the health system, being able to find, understand and evaluate the information most appropriate from time to time to satisfy their own care needs, also by exploiting the potential offered by the digital technologies | General | Decisional | Autonomous | | | |
| | • Promote and consolidate collaboration between healthcare, education and local communities | Detailed | Interpretative | Not required – charged to the decision maker | | | |
| | • Create a network of health operators between ASL and AO and teachers of schools in order to define guidelines for correct information on health | General | Interpretative | Not required – charged to the decision maker | | | |
| 3. Healthy life- styles in the workplace, in large com- munities and in families | • Spread good practices for health promotion in the workplace and strengthen the incentive system for socially responsible companies that invest in safety and prevention | Detailed | Decisional | Autonomous | | | |
| | Implement projects in large communities, involving families | General | Interpretative | Not required – charged to the decision maker | | | |
| 4. Food and nutritional culture | Outline guidelines that take into account the different contexts and different targets of the population (appropriate school and / or companies menus) | Detailed | Decisional | Autonomous | | | |
| | • Organize information events and food education projects in the territory (Gardens for Health, Zero Waste). | Detailed | Decisional | Autonomous | | | |

| Table 1. Health city manager – core curriculum | | | | | | | |
|---|--|-----------|----------------|---|--|--|--|
| Objective | Activities | Knowledge | Competences | Abilities | | | |
| 5. Access to sports and physi- cal activity practices for all citizens | Guarantee all citizens free access to infrastructure and green spaces, with particular attention to people in socio-economic difficulty according to the principle of "Sport Citizenship" and to daytime physical activity in urban travel (home to work / school) | Detailed | Decisional | Autonomous – interaction with political decision maker | | | |
| | Hypothesize new ways to protect solidarity between generations, improving the inclusion of older people in cities and promoting active aging | Detailed | Decisional | Autonomous – interaction with political decision maker | | | |
| | • Encourage sports and physical activity for children and young people, in contrast to the phenomenon of adolescent dropout, also through the active involvement of families | Detailed | Decisional | Autonomous – interaction with political decision maker | | | |
| 6. Urban trans- port oriented to slow and sustainable mobility and active transport according to a Walkable City model | • Encourage the use of sustainable modes of transport, through the creation of safe and well-connected pedestrian and cycle tracks, as well as an efficient Public Local Transport system | Detailed | Decisional | Autonomous – interaction with political decision maker | | | |
| | Provide for activities to raise public awareness towards more efficient and intermodal urban mobility choices, with shared parking and transportation facilities, as well as choices in favour of active transport | Detailed | Decisional | Autonomous | | | |
| | Encourage the adoption of SUMPs, air quality monitoring plans, noise zoning, and other planning tools | Detailed | Decisional | Autonomous – interaction with political decision maker | | | |
| 7. Strategies for urban and architectural planning aimed at promoting and protect- ing health | • Contrasting urban sprawl phenomena, through actions to regenerate and re-build parts of abandoned cities, and shrinking cities on the attractiveness of historic centres | General | Interpretative | Autonomous – interaction with political decision maker | | | |
| | • Realize social and functional mix on a macro scale (aggregated in a logic of clustering) and micro scale (street level, neighbourhoods' attractiveness) according to the identification of <i>Healthy Destinations</i> | Detailed | Decisional | Autonomous – interaction with political decision maker | | | |
| | • Implement all possible greening strategies of the city, with particular reference to the reduction of the Heat Island Effect (HIE), to the management of adverse meteorological events, to the protection and increase of urban biodiversity, identifying the environmental, social and psycho-perceptive of the elements of Green & Blue Areas, with particular reference to urban regeneration actions | Detailed | Decisional | Autonomous – interaction with political decision maker | | | |
| | Contrasting the phenomenon of Climate Change, identifying strategies of urban resilience for the reduction of environmental and health effects on a macro scale (whole city and hinterland, city dials, etc.) and micro (district, isolated, single square, etc.) | General | Interpretative | Autonomous – interaction with political decision maker | | | |
| | Manage Urban Solid Waste according to smart collection systems aimed at improving the hygienic conditions of the urban context and the aesthetic pleasantness of outdoor and mechanized conveying spaces in landfills or in processing centres | Detailed | Decisional | Not required | | | |

| Table 1. Health city manager – core curriculum | | | | | | |
|---|--|-----------|----------------|---|--|--|
| Objective | Activities | Knowledge | Competences | Abilities | | |
| 8. Primary prevention and chronic diseases | Promote information programs on prevention to integrate diagnostic-therapeutic-assistance pathways for transmissible and non-transmissible chronic diseases among municipal adminis- trations, in collaboration with the local health authority | General | Interpretative | Not required | | |
| | Activate study projects in the most suitable urban contexts to bring the citizen closer in the course of his daily activities (places of care, workplaces, recreational places, sports facilities, virtual places as reference websites of the administrations them- selves) in which to convey - through paper or virtual material key messages for prevention, involving municipal administra- tions and health authorities | Detailed | Decisional | Autonomous | | |
| 9. Social Inclu- sion | • Adopt policies aimed at improving the social, economic and environmental conditions of degraded neighbourhoods, with in- terventions, also mean-tested, aimed at improving the reference urban context | Detailed | Decisional | Autonomous | | |
| | Align the city with the highest standards of accessibility and us- ability of urban services and design for all, identifying the different types of disabilities, not just motor and / or cognitive, and identify- ing Inclusive / Universal Design strategies for the accessibility of open spaces of the city to the different categories of users | General | Interpretative | Not required | | |
| | Promote economic and social measures aimed at improving the inclusion, integration and social aggregation of all popula- tion categories considered disadvantaged due to economic and social conditions, or due to health conditions such as illness and disability, promoting their participation also in sports and recreational activities | General | Interpretative | Not required | | |
| | Promote policies of prevention and socio-health inclusion for migrant populations also through the cooperation of cultural mediators | General | Interpretative | Not required | | |
| 10. Monitoring of health data | • Create control booths for the study and monitoring of the impact of health determinants in the urban context, providing for the joint involvement of Municipal Administrations, Health Authorities, Universities and Research Centres | Detailed | Decisional | Autonomous – interaction with political decision maker | | |
| | • Promote multi-stakeholder partnerships for urban policies that, based on studies on the impact of health determinants in cities, can create "smart" interventions aimed at reducing health risks and promoting a healthy and inclusive urban environment | Detailed | Decisional | Autonomous – interaction with political decision maker | | |
| | • Create a permanent conference of the Hospitals of the Metro- politan Areas by delegating significant skills and decision-mak- ing powers in terms of planning (objective plans) and providing hospital health services | Detailed | Decisional | Autonomous – interaction with political decision maker | | |
| | Interact with European Union bodies and the WHO to carry out targeted projects and attract resources | Detailed | Decisional | Autonomous – interaction with political decision maker | | |

identified and promoted within the territorial administration culture.

All institutional and decision-making levels must develop a deeper awareness of the urgency required by

the issue of health in urban areas. In order for this to happen, the Health City Institute, in cooperation with EUPHA-Urban Health and WFPHA, has identified in Health City Manager the most appropriate profile to guide cities towards a "Health City" model, contributing to increase the administrative skills of the Authorities and to develop innovative and inclusive solutions to meet the health and welfare requests by citizens.

It is a professional profile the establishment of which has been endorsed also at European level, also through the own-initiative opinion "Health in cities: common good" adopted by the EU Region Committee (May 2017) and the positive feedback by the European Health Commissioner on the occasion of the III Health City Forum of Rome (July 2018). The Health City Institute, together with the project partners EU-PHA (European Union Public Health Association – Urban Public Health Section) and ANCI (National Association of Italian Municipalities), has, therefore, on the basis of this, designed the learning profile of the Health City Manager and created the relevant training course.

The aim is to train a professional in management skills in public health, in community sociology and psycho-sociology skills and in urban architecture skills as well as in skills to reduce social and health inequalities.

To this end, the methodology, which led to the development of the core curriculum of the Health City Manager, implied the participation of highly-skilled experts in each of the area of expertise and the sharing of a multidisciplinary approach which would enable to achieve a synthesis as satisfactory and comprehensive as possible.

As a matter of fact, the course is to be considered as a postgraduate course useful to develop a professional who can be part of the Mayor' staff and to develop those skills and competencies which are however limited and functional to the goals in the remit as indicated in the programming document of the Municipal Administration with which the Health City Manager shall interface. The Health City Manager perfectly integrates with political and technical colleagues there may be in the PA staff since her/his primary task will be to calculate and describe the impact on health and wellbeing of citizens of each resolution, transversally, making it explicit (in writing) and clear to policy makers and field operators. Coordination and periodic alignment of actions put in place is a main goal to be achieved through meetings from large to small scale, including external opportunities of presenting them to the public in such a way that community understands and gains in awareness. Thanks to specific competences in project management for health, plans eventually adopted by Municipalities (i.e. SUMPs, Traffic Plans, Climate Neutral Plans, PEBAs - i.e. plans to eliminate architectural barriers, Urban Planning Strategies, AI applications or data sharing plans) converge in a common shared vision to build up a "health city". The contribution and the value added provided by this figure can improve the relations and performance of local public administrations with the health units in the territory thereby reconciling and somehow overcoming the historically very deep separation in Italy between the social and the healthcare sectors.

Acknowledgements

The authors wish to thank ANCI (National Association of Italian Municipalities), Urban Public Health Section of the European Public Health Association (EUPHA), World Federation of Public Health Associations (WFPHA), CITIES CHANGING DIABETES for the support to the initiative.

Special thanks to the experts of the "Health City Manager working group": Cristina Bargero (C14+), Giuliano Barigazzi (Bologna Municipality), Daniele Biagioni (Italian WHO Healthy Cities Network), Michele Carruba (University of Milan), Annamaria Colao (University of Naples), Alessandro Cosimi(C14+), Giuseppe Costa (University of Turin), Roberta Crialesi (ISTAT), Franco D'Amore (i-com), Stefano Da Empoli (i-com), Maria Luisa Di Pietro (University Cattolica del Sacro Cuore in Rome), Francesco Dotta (University of Siena), Bernardino Fantini (University of Geneva), Fabio Fava (University of Bologna), Furio Honsell (University of Udine), Renato Lauro (IBDO Foundation), Livio Luzi (University of Milan), Simona Frontoni (University of Roma Tor Vergata); Roberta Gaeta (Naples Municipality), Daniela Galeone (Italian Ministry of Health), Antonio Gaudioso (CittadinanzAttiva), Ezio Ghigo (University of Turin), Francesco Giorgino (University of Bari), Vito Lepore (IRES Puglia), Daria Maistri (Milan Municipality), Giulio Marchesini (University of Bologna), Eleonora Mazzoni (i-com), Antonio Nicolucci (CORESEARCH), Steffen Nielsen (Cities Changing Diabetes), Stefania Pascut (Udine Municipality), Uberto Pagotto (University of Bologna), Paolo Pandolfi (AUSL of Bologna), Roberto Pella (Parliamentary Intergroup for Quality of Life in the City), Gian Marco Revel (Politecnico University of Marche), Chiara Rossi (CORE-SEARCH), Daniela Sbrollini (Parliamentary Intergroup for Quality of Life in the City), Federico Serra (Cities Changing

Diabetes), Gaetano Settimo (ISS), Roberta Siliquini (University of Turin), Angela Spinelli (ISS), Fabio Sturani (C14+), Angelo Tanese (ASL Roma1), Paolo Testa (ANCI), Simona Tondelli (University of Bologna), Ketty Vaccaro (CENSIS), Simone Valiante (C14+), Stefano Vella (University Cattolica del Sacro Cuore in Rome), Anne Marie Wolkmman (UCL), Francesco Zambon (WHO Europe), Maria Cristina Zambon (Bologna Municipality), Tobia Zevi (ISPI).

Conflict of interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article.

References

- 1. WHO. Hidden Cities: Unmasking and overcoming health inequalities in urban settings. Geneva, Switzerland: World Health Organization. 2010.
- Health City Institute, Manifesto Health in the Cities common good. 2016
- 3. European Committee of Region, 123rd plenary session, Opinion, Health in cities: the common good; 11-12 May 2017
- 4. WHO, Copenhagen Consensus of Mayors. Healthier and happier cities for all; 2018
- 5. G7 Side Event, Roma Urban Health Declaration; 11 December 2018
- Health City Institute, Creating the World of tomorrow,4th Health City Forum, Health City Manager: Core Competences In Urban Health Management, 2019
- 7. World Urbanization Prospects: The 2009 Revision. Rep. Departments of Economic and Social Affairs: Population Division, Mar. 2010. Web.
- World Development Report 2009: Reshaping Economic Geography. Rep. no. 43738. The World Bank, 2009. Web. 8 Feb. 2011.
- 9. Urban World: Mapping the Economic Power of Cities. Rep. McKinsey Global Institute, Mar. 2011. Web. 8 Feb. 2012.
- Glaeser, Edward. "Cities: Engines of Innovation." Scientific American, 17 Aug. 2011. Web. 9 Feb. 2012.
- Glaeser, Edward. "Triumph of the City [Excerpt]." Scientific American, 17 Aug. 2011. Web. 9 Feb. 2012.
- Pacione, M. Urban Geography: A Global Perspective. New York: Routledge, 2001. Print.
- World Energy Outlook 2008. Rep. International Energy Agency, 2008. Web. 9 Feb. 2012.
- Outlook on the Global Agenda 2011. Rep. World Economic Forum, June 2011. Web. 10 Feb. 2012.
- Global Risks 2012. Rep. World Economic Forum, June-July 2012. Web. 10 Feb. 2012.
- 16. Satterhwaite, David. Climate Change and Urbanization: Effects and Implications for Urban Governance. Rep. United Nations Secretariat: Department of Economic and Social Affairs, 27 Dec. 2007. Web. 11 Feb. 2012.

- Matuschke, Ira. Rapid Urbanization and Food Security: Using Food Density Maps to Identify Future Food Security Hotspots. Rep. Food and Agriculture Organization of the United Nations (FAO), 2009. Web. 11 Feb. 2012.
- 18. "Technology Trends." ABI Research. Web. 10 Feb. 2012
- 19. Hill, Dan. "The Adaptive City." City of Sound, 7 Sep. 2008. Web. 11 Feb. 2012.
- Glaeser, Edward L. "E-Ties That Bind." Economix Blog. New York Times, 1 Mar. 2011. Web. 11 Feb. 2012.
- "Check out Zynga's Zany New Offices." CNN Money. Cable News Network. Web. 10 Feb. 2012.
- Gansky, Lisa. The Mesh: Why the Future of Business Is Sharing. New York, NY: Portfolio Penguin, 2010. Print.
- "Climate: C40 Cities' Aggarwala Says Local Governments Can Lead the Way on Climate Action." E&E TV, 27 July 2011. Web. 10 Feb. 2012.
- 24. Brockman, John. "Why Cities Keep Growing, Corporations And People Always Die, And Life Gets Faster." Edge: Conversations on the Edge of Human Knowledge. 23 May 2011. Web. 10 Feb. 2012.
- 25. Lehrer, Jonah. "A Physicist Solves the City." New York Times, 17 Dec. 2011. Web. 10 Feb. 2012.
- A Unified Theory of Urban Living. Rep. Macmillan Publishers Limited, 21 Oct. 2010. Web. 10 Feb. 2012.
- 27. "Geoffrey B. West: Why Cities Keep on Growing, Corporations Always Die, and Life Gets Faster." Seminars About Long-Term Thinking. The Long Now Foundation, July-Aug. 2011. Web. 10 Feb. 2012.
- Guterl, Fred. "Why Innovation Won't Defuse the Population Bomb." Scientific American, 31 Oct. 2011. Web. 02 Mar. 2012.
- D'Estries, Michael. "Top Five Most Sustainable Cities in the World." Ecomagination.com. 29 Nov. 2011. Web. 10 Feb. 2012.
- 30. "10 Best Cities for the Next Decade." Kiplinger Personal Finance. July 2010. Web. 02 Mar. 2012.
- "CFP: Intercity Networks and Urban Governance in Asia." Center for Southeast and Asian Studies. 22 Aug. 2011. Web. 10 Feb. 2012.
- "Joint Initiative on Urban Sustainability (JIUS)." Environmental Protection Agency. Web. 10 Feb. 2012.
- Clay, Jason. "Precompetitive Behaviour: Defining the Boundaries." The Guardian, 02 June 2011. Web. 10 Feb. 2012.
- 34. "City Mayors: Eurocities Report on City Branding." Eurocities. Web. 10 Feb. 2012. 31 Jacobs, Jane. The Death and Life of Great American Cities. [New York]: Random House, 1961. Print.
- Kermeliotis, Teo. "Hacking the city for a greener future." CNN Tech. Web. 02 Feb. 2012.
- West, Harry. "Why Don't Regular Joes Care About Sustainability?" Co.Design. Web. 10 Feb. 2012.
- "Urbanization and Megacities in Emerging Economies." GlobeScan/SustainAbility, 10 Feb. 2010. Web. 02 Mar. 2012. "Trendwatching.com's February 2011 Trend Briefing Covering CITYSUMERS." Trendwatching.com. Web. 11

Feb. 2012.

- 38. "Can Cities Build Local Developmental Strategies? Some Surprising Good News from Colombia." From Poverty to Power by Duncan Green. Oxfam International. Web. 10 Feb. 2012.
- 39. Duranton, Gilles, and Diego Puga. Nursery Cities: Urban Diversity, Process Innovation, and the Life-cycle of Products. CEPR Discussion Paper 2376. American Economic Review. Feb. 2000. Web. 14 Feb. 2012.

Received: 15 February 2020 Accepted: 15 March 2020 Correspondence: Chiara Spinato Health City Institute Piazza Santi Apostoli, 66 - 00187 Roma (Italy) E-mail: dg@healthcitythinktank.org