

Empowerment and Participatory Approaches to Urban Health: The E-City Programme

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Abstract

This paper explores the importance of urban health in contemporary urban planning. It aims to address the question on how planners can actively contribute to knowledge and practices related to urban health, promoting equality and equity in future cities through empowerment and participation. The study analyses the strategies and initial steps of the method used by E-city, a long-term university program at the University Paris-Est Creteil since 2020. Focusing on intersectionality dynamics in planning and urban health from interviews with project leaders and professionals, survey data, and participation observation, valuable lessons from the E-City program aim to inspire a new generation of planners committed to intersectional approaches to urban health planning.

Keywords: intersectionality, pro-equity, urban justice, uncertainty experimentation

Introduction

The focus on empowerment and participation in urban planning is increasingly crucial for fostering more sustainable, liveable, and healthy cities. Pressing issues such as climate change, environmental hazards, emissions, pollution, international conflicts, and global disparities have brought attention to existing urban challenges such as isolation, stigma, and poverty cycles, exacerbating the adverse impact on urban environments. The COVID-19 pandemic has highlighted urban health as a critical concern, exposing intricate social, environmental, and economic discrepancies and inequalities in urban areas and among their inhabitants (Williams et al., 2023). Urban experts have stressed the need to incorporate comprehensive approaches to urban health into urban planning. This is crucial for advancing our understanding of the social determinants of sustainable development goals (Ramirez-Rubio et al., 2019), gaining insights into subjective well-being within the built environment (Mouratidis, 2021), and supporting the lasting inclusive development of communities (Mohamed et al., 2020).

The paper addresses these gaps by explicitly acknowledging urban health in urban planning, beyond providing health care services (Ramirez-Rubio et al., 2019). The main research question is how planners can actively contribute to knowledge and practices concerning urban health, bringing urban equality and equity to future cities. By highlighting empowerment and participation as critical elements, this paper introduces an innovative framework that inspires

planners to adopt a pro-equity approach in thinking and acting for future healthy, sustainable, and just cities.

The paper establishes an intersectional framework that combines empowerment and participation to planning theory and urban health research. Both strands of research acknowledge stakeholder engagement and the existence of multiple and conflicting knowledge claims while emphasising the importance of nurturing 'active subjects' capable of taking ownership of their situation and conditions. Patsy Healey's concept that 'planning practices have the potential to shape not just the physical qualities of places but their political ambience' (Healey, 2008, p. 380) prompts consideration of planning communicative rationalities that promote 'empowerment' through participatory democracy (Healey, 1997).

Empowerment and participation are crucial in discussions about sustainable development and urban health (WHO Regional Office for Europe, 2002). These strategies not only help to resolve conflicts and build consensus but also make people feel involved and heard, empowering them to experiment with changes and perceive the impact of their actions on their everyday lives. Empowerment and participation are essential not only for legitimising processes but also for integrating local knowledge into specific policies for different groups and contexts, fostering a sense of ownership over issues related to the quality of places and social conditions. Although uneven power dynamics can influence planning processes (Bailey, 2010), it is essential to recognise that planning is never neutral. Urban health, therefore, plays a crucial role in fostering active participation and shaping governance spaces at the centre of planning for sustainable, healthy, and just cities (Foley, 1997; Campbell, 2018).

The paper presents a novel approach to urban health planning, and delves into the E-City program, an initiative launched by the University Paris-Est Creteil University in 2020, with a planned duration of a decade. The program aims to comprehend social inequalities in urban health and their determinants within the French/Parisian/Ile-de-France context through a cohort of university students. Additionally, it seeks to function as an incubator of urban actions. The paper's primary focus is to scrutinise issues of empowerment and participation from an intersectional perspective, utilising a qualitative interpretation of the E-City method. Findings derive from engaging in focus group meetings, conducting interviews with proponents and professionals of the program, interviewing project leaders, collecting insights from student surveys, and participation observation.

The E-City program activates a young generation of students, giving feedback on the service campus and municipalities to expand local knowledge and support and empower a new generation of ambassadors and a new generation of intersectoral planners. The paper concludes by drawing lessons from the ongoing progress of the E-city program on the complexity of interactive governance forms, interdisciplinarity and transdisciplinary dynamics with academia, governmental, and professional institutions. Planning needs to face many uncertainties over the unpredictability of complete knowledge over the future (Pløger, 2023; Lissandrello et al., 2023) hopefully leaving "no one behind" (UN Agenda, 2030).

Theoretical Framework

'And if so, what is the hope that a more participative model can address the challenges of promoting more liveable and sustainable urban places for the many and not just the few?' (Healey, 2008: 379)

Empowerment and participation in planning

In planning, the issue of empowerment and participation has been a long-lasting issue since the 1960s. It concerns public involvement, advocacy and collaborative planning, and inclusive

partnerships. Participation has various meanings and processes that lead to citizen control (Arnstein, 1969), but not all can be considered empowering. However, collaborative and deliberative planning theories consider empowerment and participation as essential processes linked to power dynamics for collective and social intelligence. Empowerment is, therefore, a social learning process valuable for advancing a critical participatory democracy (Foley, 1997) and occurs *through* the planning process (Healey, 1997; Forester 1999). By involving citizens in deliberative forums, citizens can express different expectations, awaken open possibilities for new planning practices (Booher, 2008), and create arenas by bringing voices to monitor formal government actions (Kam Ng, 2008). As urban futures cannot be predicted (Albrechts, 2008) or 'owned' (Pløger, 2023), the engagement of citizens in the imaginative work of the future is essential to create common imaginaries of wishful urban futures. Recognising and valuing diversity is a crucial prerequisite for finding solutions that reflect people's needs and moving towards urban justice, equality and equity (Perrons & Skyers, 2003).

The formation of collective intelligence and the opportunity for citizens to be heard through the planning process remain still controversial. Participation and empowerment depend on the ability of citizens and communities to have a voice, be heard, and turn their voices into opportunities for action. In other words, empowerment and participation depend on methods of public engagement, often strongly influenced by the opportunities of institutional design within governance practices (Torfing & Sørensen, 2008). While empowerment and participation have been long integrated into a planning vocabulary in procedures and routinised planning practice in European and Western cities and countries, performing participation and dealing with empowerment still suffer from unequal and exclusionary conditions (Petersen, 2008). Although local government policy documents and strategies, as well as global institutions, embrace participation and empowerment as principles, citizens too often remain outside the decision-making arena at the local level. The issue of redistributing resources and acknowledging the need for fairness and equal opportunities is often overlooked. As a result, solutions to create more equitable urban policies and sustainable cities are often ineffective. Additionally, the current planning mindset tends to maintain existing power imbalances and exclusion, which is a significant challenge to overcome.

Contemporary urban society sectoral policies such as energy, mobility and nature-based solutions continue to be dominated by a techno-democracy embodied in narrow ideals of 'good' citizenship (Roy & Neveu, 2023) and more often lead questions on social acceptability (Warren et al., 2012) of pro-environmental behaviours for critical policies to twist into a 'corrective' individual behaviour – in the morality our common future (World Commission on Environment and Development, 1987). However, urban planning concerns the nexus of complexity in which urban environmental exposure, the quality and affordability of housing, the opportunities for transportation networks, green and public spaces, socio-economic services, urban communities' identity. Urban change depends, therefore, on complex dynamics – not only planning decisions or governmental authorities alone – but on what often are framed by the theory of change (e.g. Popay, 2010): the system interaction of individual behaviours, routinised social practice and structural and institutional regulation and dynamics of change on multiple levels and temporalities (Geels & Turnheim, 2022; Lissandrello, 2020). The dynamics of empowerment and participation in planning for more agonistic deliberative democracy (Mouffe, 1999) entail consistently challenging the political community by considering when and how planners and urban managers should revitalise or support protests or pacify troubled situations. There is a concern that claims for empowerment and participation may replicate a managerial "business as usual" approach, which limits the space for agonistic forms of democratic practice and intersectionality. Empowerment is a necessary social learning process for promoting critical participatory democracy and revolve around the fundamental concept of "working on problems with people" to bolster democratic processes (Foley, 1997; Forester, 1999).

Empowerment and participation in urban health

Empowerment and participation have been central concepts in urban health research and policies (WHO, 1986). Since the United Nations Conference on Environment and Development (1992), the concept that health actions should be carried out by and with people rather than on or to people. This concept involves enabling people to actively participate in defining the issues that concern them, making decisions about factors that affect their lives, formulating and implementing policies, planning, developing and delivering services, and taking action to achieve change (WHO Regional Office for Europe, 2002). In the field of public health, the implementation of no-smoking policies in the 2000s showed that government-led decision-making, also known as 'top-down' policy interventions or 'control over', effectively addressed complex issues like protecting the health of all citizens. The COVID-19 pandemic has highlighted the critical and complex nature of public health issues, with a high degree of uncertainty about future unforeseen impacts. Addressing this uncertainty and ensuring the effectiveness of health policies requires a collective commitment from all of society. In response to the challenges posed by the COVID-19 pandemic, communities have proactively devised autonomous measures to address the uncertainties and enduring impacts of prolonged isolation, remote work, and mobility constraints. This situation has manifested in the form of community-driven solidarity initiatives. A noteworthy observation is that uncertainty can catalyse heightened awareness and empowerment. For instance, localised endeavours have surfaced amid the pandemic to promote mutual assistance by sharing facilities and spaces. Furthermore, utilising public spaces has transformed the pandemic, expediting implementing tactical urbanism projects, such as temporary bicycle lanes, street-level terraces, and urban gardening.

In the context of change management, planners and urban managers must mitigate change's disproportionate impact on underprivileged communities. Therefore, urban planners and managers must ensure that these already disadvantaged communities are not unfairly burdened with the added challenges that come with change. The essential aspects of empowerment and participation in urban health policies involve defining and implementing techniques to promote good local governance (Carly, 2003), effective community participation, and support of disadvantaged communities through social capital and capacity-building. Studies have shown that health promotion is now seen as a form of empowerment in itself (Amdam, 2010). According to Ramirez-Rubio et al. (2019), cities are experiencing significant demographic and epidemiological changes, leading to substantial health inequalities, such as segregation by social class, gender, age, or ethnicity within or among city neighbourhoods. Therefore, urban health is a crucial issue that plays a fundamental role in guiding the UN's sustainable development goals, particularly in issues related to empowerment and participation, which have long been discussed by the World Health Organization (WHO) and the European WHO Healthy Cities initiatives.

According to the WHO, behaviour change involves the organisational behaviours of intermediaries, including leadership, agenda setting, policy formulation, adaptive management, network formulation, innovation, teamwork, and implementation at strategic, tactical, and operational levels. However, most existing literature on empowerment and participation in community involvement comes from Europe and other high-income countries. Community participation and empowerment have evolved from specific ad-hoc or occasional events to an integrated strategic component that significantly influences the health-related sustainability issues in urban development (Scriven et al., 2023). The need to build participatory community networks and, specifically, to empower socially excluded people must be addressed in urban health. There are increasing and well-founded concerns that participation in urban health is

often a superficial 'tick box' process in which unequal power relations remain unaddressed, compromising the potential of participatory processes to achieve more significant equity and justice (Egid et al., 2021). It is crucial to consider reflexivity when engaging in critical discussions about the roles of stakeholders about privilege and power and how these roles impact urban health research and practice. Popay (2010) proposed the theory of change in urban health, outlining four approaches involving individuals, social practices, and system change in empowerment and participation: informing, consultation, co-production, and community control.

Urban health planning: An intersectional approach to empowerment and participation

The COVID-19 pandemic has highlighted the importance of urban health in urban planning, providing valuable insights to improve urban preparedness, adaptability, and resilience during emergencies. However, current planning theory and practice still need to consider urban health from an intersectional perspective. Planning theory and urban health research shares similar concerns on empowerment and participation, but from different ontological and epistemological perspectives (Pineo et al., 2020) that reflect the division between natural and social sciences, such as positivism and social constructivism. Scholars have highlighted the diversity of goals, values (Lee & Zarowsky, 2015), and ethics (Campbell & Marshall, 2002) among those who aim to "reduce suffering and improve health" and those who instead manage change in urban environments. However, the dynamics of power are a common point of intersectionality. In both planning theory and urban health, positions of power (such as planners and health practitioners) and those seeking empowerment (like citizens and clients) must work together to establish the conditions needed for empowerment (Laverack, 2006). An inspiring aspect is that both planning theory and urban health research have emphasised that — practitioners (must) act as advocates, enablers and catalysts for empowerment. Participation and empowerment require a synergistic interaction between individual empowerment, organisational empowerment, and broader social and political actions (Laverack, 2006, p. 36). Urban health research views public participation not as a 'ladder' (Arnstein, 1969) but as a 'wheel' of participation (Davidson, 1998) and emphasises the ongoing collaboration across institutions, encompassing the responsibilities of actions ("top-down") and the empowerment of citizens and communities to take action ("bottom-up"). This approach intertwines health, well-being, and sustainable development with urban societal equity and equality (Dooris & Heritage, 2013). Creating intersectionality between planning theory and urban health research involves integrating ideas such as advocacy and communicative planning (Innes & Booher, 2010) to address social and health inequities in cities (Williams, 2020) and adopting a "relational, health equity-oriented approach to planning" (Corburn et al., 2015, p. 267). This approach enables planners to evaluate the prevailing values and assumptions (Collins, 2000; Fincher & Jacobs, 1998; Sandercock, 1998, 2000; Williams, 2020). The active involvement of the public, particularly vulnerable groups, in planning processes can effectively reduce inequalities and enhance social cohesion. This approach, known as an empowerment strategy, is closely tied to social justice. In this context, social justice aims to ensure equitable access to resources and rights for all social groups. When applied to urban health planning should enhance the active role of citizens in producing, reproducing, and representing urban spaces as socio-spatial processes (Soja, 2013) within a specific urban socio-economic context. Urban health planning is here considered a lens to uncover urban gentrification and the segregation of specific urban areas, focus on how urban planning can enhance urban health impacts without perpetuating social and urban disparities and recognise that proximity does not always guarantee accessibility (Glock & Gerlach, 2023).

The E-City Program

The E-city program, established in 2020 with an envisioned lifetime of a decade, focuses on understanding the social and environmental factors that affect population health in urban areas. The program aims to investigate social inequalities in urban health and their determinants. Urban health is a significant and complex topic that has been widely acknowledged. It involves individual behaviour but goes beyond behavioural changes and includes values, equity, and social justice issues. The E-city program has established four main objectives since its inception. The first objective is to improve the quantity and quality of existing public health data. Often, data exist but are too fragmented, dispersed across several authorities, institutions, and organisations, and temporarily gathered according to projects and may only be partially utilised.

Public health data are vulnerable because they can quickly become outdated when studying urban health equity and equality. Therefore, the program's primary focus is to build a database that specifically addresses these questions, serving as a tool to collect and exchange data and regularly monitor them. This approach aims to empower individuals and communities by giving them control and understanding over their data. The second objective of the E-city program is to create the conditions for advancing interdisciplinary knowledge in urban health research. The study of urban health involves various research fields coming together to comprehend the impact of the urban environment on health.

Some directions in urban health research are exploring different factors that affect health in urban areas, identifying potential ways to improve health, and understanding the various influences on health in cities, such as environmental, social, and lifestyle factors, as well as integrating knowledge from various fields such as medicine, environmental science, natural sciences, data analysis, humanities, and social sciences. Urban health research considers different viewpoints to tackle complex urban health challenges. The third objective is to create a transdisciplinary approach that can serve as a tool for political decision-making. Understanding urban health dynamics can help shape public policies that are more value-driven, equitable, and just by informing ongoing monitoring and diagnosis that can influence urban planning and the testing and development of solutions. The E-City program integrates urban space and environmental quality with health concerns.

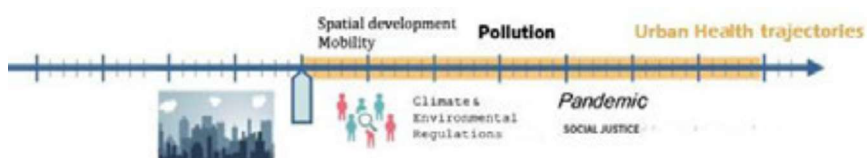


Figure 1 – the concept of urban health in the societal transformation in the E-city program

The program aims to establish a public health monitoring system in urban areas, creating an 'urban cohort' as a living laboratory for citizen science and open science that includes developing a data platform to collect, utilise, and share information. The E-city program aims to analyse the long-term effects of social and environmental factors on urban populations, such as noise, environmental risks, and pollution, which impact social, demographic, and lifestyle dimensions. Lifestyle changes require a wide range of skills to improve citizens' quality of life and health and evaluate public policies. The E-city program involves various skills within the University Paris Est/UPEC, including 32 research institutes with interdisciplinary approaches.

It seeks to build on past experiences, successes, and initiatives from diverse disciplines and research groups.

Description of participatory methods used in the E-city program

The E-city program is designed as a tool focused on an urban community around which partners can align themselves and structure projects. It also serves as a platform for mobilising customised scientific expertise, funding innovation, and fostering scientific collaboration to address major societal issues. The program is based on creating experimental teamwork for diagnostics, data interpretation, and experience feedback. E-city serves as a platform for addressing urban health issues by bringing together data, people, and resources for researchers and institutions. What sets the E-city program apart is its comprehensive approach to urban health, considering socio-environmental factors. This comprehensive approach positions E-city as a hub for interdisciplinary research, aiming to design an urban ecosystem as a real-world laboratory - essentially bringing the University into the city and the city into the University.

The urban population cohort is a crucial element for empirically analysing territorial data. The E-city program aims to establish an inclusive research program with flexible parameters, promote scientific freedom, and encourage innovative methodological approaches. The E-city program's transdisciplinary and inclusive scientific research aims to benefit the Paris Ile-de-France metropolitan area by enhancing the ability to account for urban dynamics.

The vision of the E-city program is to create a network to gather data about urban health in a participatory and empowering manner. The E-city program does not rely on predefined tools that are not based on local problems and knowledge. In many cases, local knowledge is often overlooked. By prioritising local knowledge at the end of the research process, it is difficult to understand how the context changes and how enduring social inequalities persist. In E-city, local knowledge is central to the research process and is dynamic, involving active experimentation with the community.

As illustrated in the program diagram (Fig. 1), E-City collaborates with a wide range of private and public partners, including municipalities, regional authorities, associations, and companies. A continuous dialogue with these representatives of metropolitan society regarding current needs and questions about urban health and well-being issues leads to research projects that align with the holistic vision of the E-City program. These projects are co-designed with local and territorial stakeholders and researchers from the interdisciplinary scientific community of UPEC University.

In addition, E-City actively generates research projects by inviting researchers from other universities and public or private research institutes to submit project proposals. E-City maintains regular communication with the research community to identify and develop specific projects that align with the overall research goals of the E-City program. In collaboration with the 42,000 students at UPEC University, the students at E-City contribute to research data collection through scientific surveys. Multiple surveys are conducted annually, and a dedicated interdisciplinary committee of researchers oversees the ongoing methodological adjustments. The survey results are analysed and discussed in research seminars and workshops throughout the survey process.

The research projects conducted with E-City partners aim to achieve three types of results:

1. Creating scientific knowledge shared with various research communities and disseminated through papers, workshops, and conferences. The scientific results are also shared with citizens and public institutions, and locally specific methods for shared language and lifelong learning are co-created at the local level.

2. Generating operational outcomes for public or private practitioners and providing recommendations for public policymakers. These operational results aim to co-construct collective action in urban health.

3. Emphasising the link between research and education, E-City uses the scientific results from cohort surveys as input for developing teaching methods and topics. E-City conducts workshops and seminars with students from different faculties.

Additionally, E-City participates in "citizens' students' conventions" (CCE), a participative and deliberative arena where critical societal issues are co-constructed and collectively decided.

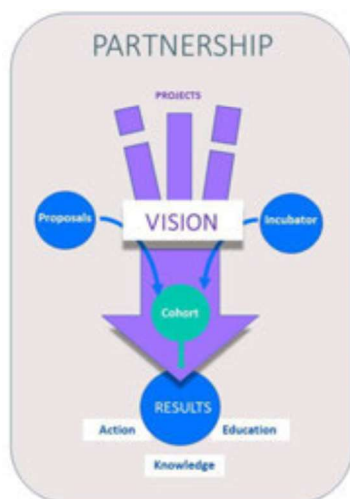


Figure 2 – the concept of partnership for empowerment and participation of the E-city program

The E-city program is based on a holistic approach to urban health, seen as a vision of a system and a set of guiding principles (autopoiesis). The "auto-poietic" approach follows an "abductive" epistemological logic as a continuous process of gaining knowledge and refining practices through learning by doing and reflecting on experience (Aliseda, 2006). This approach is rooted in embracing and navigating uncertainties rather than seeking to control or eliminate

them. It acknowledges the impossibility of fully predicting the future but encourages a reflective approach to action. The vision of a system that evolves through learning and reflective practice is implemented through citizen participation, intersectoral and interdisciplinary cooperation, and the deliberate attempt to co-produce interdisciplinarity and transdisciplinarity within public policies.

Thinking of urban health as a self-generating system

The concept of autopoiesis, derived from the Greek words "autos" (self) and "poiein" (create), refers to a system's ability to learn and adapt to changing circumstances by reorganising its structure, such as roles, functions, processes, and tools. A system that exhibits autopoiesis is self-referential, establishing its own frames of reference. Its individual components, actions, and interactions continually sustain it, creating a dynamic and self-sustaining environment (Maturana, Varela, 1980).

John Urry offered a compelling example of autopoiesis in the context of automobility, describing it as a system comprising interconnected social and technical practices that have reshaped civil society (Urry, 2000, p. 190). The system of automobility encompasses not only the car as a manufactured object but also as a consumer product, a complex of mechanical components, an environmental factor, a mode of mobility, an economic instrument for trade and consumption, and a prevailing cultural narrative. Additionally, it involves the economies of car dealerships and fuel distribution, as well as specific interactions with urban spaces. These various dimensions interact, generating and sustaining mobile civil societies that rely on the automobile system, influencing the characteristics of space, time, residence, and social interaction (Urry, 2000; Urry, 2004; Gartman, 2004). The concept of an E-city revolves around creating a living system that establishes its dimensions through data, the participation of citizens and researchers, their interactions, and assemblages. It aims to develop the capacity to

continually learn, iterate learnings and reflections (Schön, 1983), and self-produce itself constantly.

Developing a shared language

It is essential to have a shared understanding and use of language to strengthen arguments, enhance communication, and build connections and alliances among involved parties (e.g. specialised terminology, different ways of presenting and representing information, and communication protocols) (Habermas, 1984). Language serves as a tool to increase participation and broaden access to knowledge and resources in participatory democracy, establish platforms for deliberation, and empower citizens to become active political participants (Schön, 1983). The E-city program aims to establish a shared language through various communication methods and spaces for deliberation. The goal is to provide ongoing platforms for discussion where urban health issues can be shared, debated, and collectively defined. The fundamental principle is that interpersonal communication helps share qualitative and reasoned arguments to establish a shared understanding without disregarding individual, non-universally accepted interpretations. As a result, E-City regularly hosts: 1. Discussion seminars with experts, known as "Café E-City"; 2. Podcasts featuring experts and citizens; 3. Citizens Students Conventions (CEE); 4. Round table discussions with associations and institutions.

Co-creative research methods to analyse the surprising facts

The E-City programme follows an "abductive" epistemological approach, which involves introducing new ideas into the research process and treating it as a creative endeavour where surprising facts can be crucial. This approach allows for questioning established assumptions and validating empirical results. The abductive epistemological logic combines abduction, deduction, and induction as a methodological framework. This approach is beneficial for researching complex urban systems with numerous interrelated health issues.

Different representations of value (e.g., sentimental, economic, cultural) are used to co-produce opinions and formulate objectives regarding desirable futures in urban development, raise awareness, mobilise, consult, understand, share, and experiment.

The E-City Programme proceeds incrementally

From the beginning, E-City has taken a comprehensive approach to urban health, avoiding a narrow focus on any specific research area related to sectoral planning and urban health. By working inclusively with various partners, E-City has gradually evolved and experimented to develop solutions without assuming they are final. To identify research needs from academic and operational partners, E-City prefers a spontaneous and flexible approach to organising research projects, gaining democratic approval for the collaborative process. The approach is iterative and negotiated, embracing uncertainties along the way.

Insights from focus group meetings, interviews, surveys, and participation observation

The first phase of the E-city program (2020-present day) has tested the concept of a comprehensive vision for a healthy urban environment. The initial months of its activities have been dedicated to mobilising scientific stakeholders through a tailored platform focused on implementing the first phase of the urban cohort. This phase consisted of establishing a scientific environment to advance research on urban health. It involves creating experimental

sites for action research, interpreting field diagnostics, and utilising data and experience feedback. Additionally, empowerment initiatives have been implemented to involve students and local stakeholders in the operational processes.

The research projects for the student's cohort focused on land use planning. They included topics such as "Understanding the problems of isolation and health deprivation of a growing ageing population" (Val-de-Marne), "Involving students in research into the health and well-being trajectories" (UPEC/ERASME), and "Urban planning for blind and partially sighted people" (Guyot Center for blind and partially sighted people).

These research projects focused on training a new generation of intersectionality planners, with students being supervised in multiple urban design and spatial planning curricula. Additionally, students received training in meanings and empowerment theories through workshops and master-tutored workshops. During the training, consulting companies and experts who were E-City members participated in the Network for the Regional Plan for Health and Environment. Professionals from different departments and institutions in the Ile-de-France region participated in interdisciplinary seminars.

Communication is Key

The development of E-city's activities is supported by communication efforts to publicise the research program and promote its activities. This is done through various platforms such as LinkedIn, targeting professionals and students in the process of professionalisation, as well as those interested in working with the E-city team. The purpose is to present the progress of projects, especially those related to the territories. Additionally, activities are promoted on Instagram to target students in the UPEC cohort. All E-city projects are also featured on the E-city/University website.

Furthermore, E-city has collaborated with the EUP to launch an Interfaces podcast. Co-hosted with the Chair in Planning Greater Paris, Interfaces aims to bridge academic research, society, and territorial authorities, giving researchers, students, experts, and activists a voice. The popular podcast format can effectively share essential research elements at EUP, UPEC, and neighbouring universities. It can also be used for targeted communications within other research and local communities.

In addition to the podcast, targeted publications such as the booklet with the first results of the student cohort are being distributed to UPEC students. These publications present the first analyses using graphic work to engage the audience produced by work-study students. The communication work supporting each E-city project aims to achieve the following objectives: raising awareness about the E-city program, which is part of UPEC's overall strategies, promoting projects carried out within the University and in collaboration with local partners, and popularising and disseminating the anticipated research results to the general public. Starting with students and the support of UPEC scientists, the E-city highlights the strengths of UPEC. The podcast "Interfaces" consists of academic research and diagnostics, presenting initial results on the exposure of society and urban areas. The first series of "Interfaces" focused on the environmental exposures of urban areas (July 2022), while the second series was about the management of the exposure of urban areas (March 2023). A third series presented the first results of the cohort (March 2024).

The Student Cohort at Paris-Est Créteil University

Today, there are two main initiatives in E-city: the student cohort, which will continue, and the general cohort. The student cohort focuses on subjects that provide a framework for ERASME,

a state-funded university project aimed at transforming the University to be more locally embedded in the eastern and southern parts of Greater Paris. This cohort is linked to student empowerment and was essential in constructing the E-city program. Methodologically, the student cohort provides an opportunity to develop learning about the approach, while thematically, it is a strategic focus on its own. The idea is to start working with diverse competencies that connect research on urban health. The student cohort is, therefore, a testing phase and a call for colleagues and partners.

The term "students' cohort experience" refers to a particular group of students in a specific location. These students are all at a critical juncture in their lives, which is significant for their education, chosen fields of study, and future endeavors. The student cohort is a critical element that allows the E-city program to provide opportunities similar to ERASMUS, addressing the specific needs at UPEC.

The E-city approach involves engaging with students and the campus service. The student body is diverse, and it's important to account for the changing demographics as new students enter and graduate each year. Additionally, the survey should adapt to the students' circumstances as they enter or complete their studies, considering changes in their attitudes, health, and behavior. The student body is being studied to gain insights into their health and to raise awareness about the issues students may face. This approach also allows for testing the structure of the student body and reaching the entire student population quickly, all in one day through the campus service.

The student cohort is established as a key component of the E-city program, following three main steps:

1. Development of a questionnaire in collaboration with experts and students, collected through stands and meetings with sociologists, health geographers, and mental health medical professionals.
2. Launch of the student cohort in coordination with university services, including the campus health service, the office for personal data protection, and the Department for Student Studies and Life.
3. Anticipated enrollment of approximately 2,000 new participants annually over ten years, enabling UPEC to assess and address the needs and expectations of the student population through concrete actions, including research-based teaching and opportunities for experimental research. The ultimate goal of the student cohort is to empower students by integrating local knowledge, fostering awareness and confidence in their health, and enhancing their ability to take action on health-related issues and their place.



Figure 3: Tutored workshop with the Master 2 AUDE-EP (Paris School of Urban Planning) for the assessment of students' well-being at the UPEC campuses.

The Survey on Urban Health

The student cohort is based on a questionnaire that aims to be holistic. It covers multiple and transversal themes to understand urban health determinants. Urban health is defined by the WHO as "a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity". The cohort questionnaire should enable E-city to investigate the factors influencing the lifestyle and health trajectories of students with a multifactorial approach to explore what contributes to students' well-being, success, and overall quality of life. This will involve examining aspects such as the social and urban environments of individual students, their health trajectory, and the resources available to them, including infrastructure and financial resources.

For this survey, the E-city team initially collaborated with students to gather feedback on their concerns regarding participation in the student citizen convention. They also used existing surveys, such as the OVE. Additionally, the work was performed in close collaboration with various university services (SSU, DEVE) and researchers in the fields of psychiatry, geography, and sociology. Furthermore, the E-city team addressed regulatory issues by collaborating with the DPO.

The survey was created in 2022 and tested in the first wave in Spring 2023. The results were analysed in the first few months of 2024 and covered the following themes: socio-demographic characteristics (ten questions on individual situation such as place of residence, gender, and age), course of studies and student life (twenty questions on academic background, workload, and perception of university environment), environment/living situation/activities (fifteen questions on housing, daily mobility, and everyday behavior), personal situation (twelve questions on financial resources, family support, and episodes of discrimination), and health situation (twenty questions on perceived personal health, mental health, seeking care, and diet).

The experimental approach to connect the University and territory

The E-city program also serves as an incubator, implementing action research in the area. It acts as a meeting point where communities present their needs, fostering relationships between universities (and research actors) and the local area. This involvement integrates students into the societal issues of the territory, promoting a pedagogical approach.

In 2023, the Department of Val-de-Marne contacted the E-city team, seeking to leverage scientific expertise, coordination skills, and connections with the university community, including researchers and students. They wanted us to conduct a study tailored to the specific needs of the Val-de-Marne region. This interest led to an experimental project focused on the ageing population with consultation in the Haie Griselle - La Hêtraie district in Boissy Saint Léger and Limeil Brevannes.

The objective of the survey for the departmental council of Val-de-Marne is to improve consideration of the needs of older people and people with disabilities in priority neighbourhoods. This action is dedicated to priority neighbourhoods because ageing populations will affect all territories, but it promises to be more rapid in some urban areas.

Public policies usually focus on active populations and families, and they need to address the needs of populations that are losing their independence and getting older. The aging population in these areas encounters daily challenges such as unsuitable housing, limited mobility, access to services, and isolation. The department's commitment to an experimental approach was unanimously approved by the elected representatives of the Departmental Council in December 2020 during the adoption of the departmental autonomy plan.

The Haie-Griselle / La Hêtraie district has been chosen as the focus of the experiment because it is one of the 20 most deprived neighborhoods in Val-de-Marne according to the ranking by

the Department's Observatory of Social Housing Neighborhoods (OQHS). The aging process is particularly pronounced in the neighborhood, with a significant 70% increase in the population aged 75 and over in Priority Neighborhoods (Quartier Prioritaire de la Politique de la Ville) between 2013 and 2018. The district's population is also declining (5024 in 2018 compared to 5301 in 2013). It is unique in that it is a residential park and is affected by an urban renewal project of regional interest (PRIR).

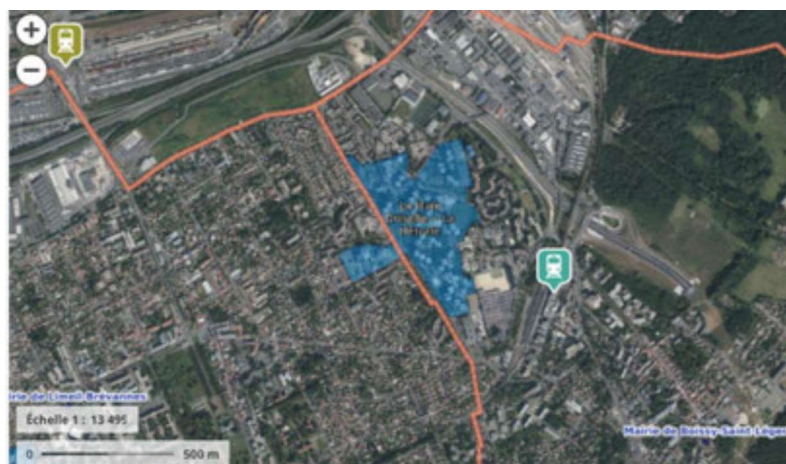


Figure 4: Haie-Griselle / La Hêtraie district

The project's objective within the E-city program is to conduct an experimental consultation process in the La Haie Griselle – La Hêtraie district on the issue of an ageing population, taking advantage of the district's urban renewal operation (NPNRU). The students will be involved in the analysis of the ageing experience using various methods such as field observations with photos, participatory workshops, and semi-structured or biographical interviews. The goal is to understand how the residents of the Haie-Griselle - La Hêtraie district experience ageing. The aim is to improve their access to rights, housing, public spaces, and prevent social isolation. The E-city team will use both qualitative and quantitative tools such as questionnaires, field observations, photovoice, participatory workshops, and semi-structured interviews to gather information and work with our partners to plan concrete actions for the aging population. The project requires the mobilisation of actors and partnerships. The project sponsors (CD94) regularly organise project implementation meetings and monitor meetings with stakeholders (CD94 members, their elected officials, and GPSEA for the NPNRU aspect) throughout the project duration from October 2023 to September 2024.

From October 2023 to January 2024, a group of students in the Master of Education Sciences program at the University of Paris-Est Créteil has conducted research on the intergenerational aspect as part of an intensive seminar. Additionally, from October to March 2024, a group of students in the Master 2 AUDE-EP program at the Paris School of Urban Planning is working on public spaces, involving observations, interviews, participatory workshops, and an assessment of the use of space.; and from February to September 2024 a Master student in health geography (University of Nanterre and Créteil) on an internship for five months is working on qualitative tools with isolated people; and from May to July 2024, a student on an

internship for three months is carrying out interviews with stakeholders, and help the restitution of data to identify concrete actions in the region.

Lessons from the E-City Program

The E-City program has several expectations for UPEC, the scientific community, and local communities. The program aims to produce scientific findings on urban health by monitoring a cohort over time. Findings are expected to contribute to a better understanding of life trajectories, the factors contributing to inequalities, and scientific challenges. The cohort model, which explores the interplay between urban health and planning issues, has the potential to help in developing future scenarios through co-design.

Local knowledge has proven to be essential from an operational perspective. It is vital not only for understanding the community but also for implementing various forms of engagement and experimentation in urban areas with residents and the urban population. This helps to make participation and empowerment being at the center of co-creation processes to enhance people ability to act in the face of the challenges they encounter. Establishing living labs and engaging in the co-production of public action in a tangible manner requires a significant level of commitment.

The E-city program offers two types of lessons. The first type involves scientific research on urban health, focusing on understanding the relationship between urban environmental exposure to noise, risks, and pollution, and the health conditions of the urban population. Data on potential health trajectories contribute to understand inequalities, and conditions of urban inhabitants. The second type of lesson focuses on engaging urban stakeholders in co-producing knowledge about urban health determinants, overcome issues of inequality, and define pathways to empower people through information on health determinants, risk factors, and learning about socio-environmental determinants. This involves experimentation in living lab contexts, prototyping solutions, and neighborhood houses to establish trust and co-produce public action. An essential aspect is the evaluation of public policies (ex-ante, in-itinere, ex-post) related to health, urban conditions, and lifestyles.

Vulnerable Group of Young Generation University Students

In the first wave of the student cohort, nearly 1000 participants took part in a survey. The cohort has gathered research material from various fields including health geography, health economics, psychiatry, and sociology. The results aim to provide more detailed insights into the students' conditions, which will be used as feedback for University services. The findings will be compiled into an annual report and presented in Autumn 2024. In Spring 2023, student internships and workshops will be conducted, focusing on "health profiles and living environment." Additionally, a new questionnaire will be enriched with a new round of surveys from the second student cohort, to be submitted in Autumn 2024.

The findings from the survey of the first group of students were discussed in a workshop that included experts in health geography, health economics, psychiatry, sociology, and urban planning. The workshop helped the E-city team to analyse the survey data and identify disparities in access to higher education and graduation, as well as the challenging living conditions experienced by certain students. It was also identified perceived health issues among students, difficulties faced by certain student groups in accessing public health services, and concerning signs of potential comorbidities.



Figure 5: Workshop with multidisciplinary experts interpreting and discussing the first data acquired through the first wave of the survey of the student cohort (March 2024).

Vulnerable Neighbourhoods of Ageing Population

Challenges of the experimentation-consultation project in the Haie-Griselle - La Hêtraie district. The work areas approved by COPIL (June 15, 2022) focus on five main aspects:

1. Communication about the neighbourhood's redevelopment to assess communication needs and methods within the PRIR (Project of Regional Interest) framework.
2. Neighborhood accessibility and movement within the space (user journeys) to evaluate building accessibility, road layouts, and shared spaces (residential areas, thoroughfares). Identifying traffic routes, resting places, and public spaces such as benches.

It is adapting housing for the older population to enable them to stay home and understand existing devices, using technical aids and the services offered by home care and medical facilities and focusing on social life, citizenship, and measures to prevent loss of autonomy. Planning prevention systems and actions such as sports, cultural activities, and leisure, adapting local services, and promoting community activities are essential for enhancing social life. The project also focuses on changing perceptions of old age and disability by studying how older populations are represented and their role in the community and promoting intergenerational activities. This project requires the participation of professional staff to conduct this action research.

Conclusions

The E-City program's vision and strategies have led to significant opportunities for establishing partnerships with the EUP to address participation and empowerment in urban health. The themes addressed by the E-City program are directly related to the concept of a "Healthy City" and show intersectionality with youth and the ageing population, which is likely to be of interest to future generation of planners and research-based educational activities in the Paris School of Urban Planning.

The E-City program has achieved a significant outcome through the collaborative effort of the students' cohort. The "E-City students cohort" underwent a 2-year preparation phase, during which various methods and techniques of communication, awareness, participation, and collaboration were tested. A methodological framework was continuously tested with segments of the student community, and it was consistently improved to align with the students' capacity to comprehend and engage with the E-City program, considering their individual living and working conditions.

The COVID-19 pandemic has had a significant impact on urban health conditions, especially for students. Many students were confined to their small apartments and had reduced access to learning resources, facilities, and amenities. These impacts continue to affect the mental health and well-being of many students today. The latest E-City survey has revealed interesting findings on the urban health conditions of students at UPEC and has raised important questions for sustainable planning. The survey found that the time spent in transportation for commuting to the University has a negative impact on students' working conditions, with 56% spending less than 1 hour in transport and 12% spending more than 2 hours. More than a third of the students need to work to pay for their studies, and almost half are facing significant financial challenges. These findings are important because of the accessibility of universities in outlying urban areas. How can we enhance accessibility through various modes of transportation? What options are available for providing financial assistance to local students?

Another important aspect related to urban health and planning is young people's mental health. According to the E-City survey, half of the students regularly experience bad moods, sadness, and anxiety. A quarter of the students have had panic attacks, and 5% seem to have psychotic issues. It is crucial to understand the causes and sources of these mental health problems. Are these issues based on pathologies? Are they severe? What initiatives can be improved to ensure the best care for young generation with their participation and empowerment?

The rapid growth of cities poses significant challenges on urban health planning. Over 55% of the world's population lives in urban areas, and this number is expected to increase to 68% by 2050 (Santos-Tapia et al., 2024). It is crucial to rethink planning in relation to urban health, with participation and empowerment as key aspects of this intersectionality. Citizens need right to access information, voice their opinions, and participate in decisions related to urban health planning for more sustainable equity, equality, and social justice to promote healthy urban contexts. This means to face experimentation and uncertainty (Zepf & Ramirez-Cobo, 2022).

Within the E-City program, the university campus service has implemented new and innovative approaches to delivering services that could bring future benefits to students. These benefits include support for mental health, training focusing on positive future scenarios, and enhanced social capital. There is a growing awareness that issues such as transportation, financial assistance, and guaranteeing a more positive vision of the future are essential for the younger generation. Rapid urbanisation has impacted traditional social bonds and cultural affinities, affecting the ageing population (Galea & Vlahov, 2005). The E-city program has therefore identified a role for the University to lead the way for equality and equity and identifying some crucial vulnerabilities for a new generation of intersectional planners. There are communities to empower in numerous ways in health provision, such as education, security, maintenance, and planning activities in the context of place-making, solidarity needs and possibilities, and social practices. Planners need to adopt intersectional frameworks to discuss and debate future visions based on ethical principles, future generations, and communities where will be essential promote equality and social justice by collaborating to create knowledge, identify crucial aspects, and develop models to cultivate practice and education on inclusive urban health planning.

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