Health inequities have been increasing in Europe, particularly in a context of an ageing society and economic crisis. In countries with different levels of infrastructures and health system preparedness, there is a pressing need to evaluate and select policies with a potential to improve population health and address health inequities. For this purpose, the regional level is the most appropriate scale of analysis, since EU cohesion policies and structural funds are defined and allocated at this level.

Under the EURO-HEALTHY consortium one tool is being developed to evaluate the European population’s health in multiple dimensions and geographical levels: the Population Health Index (PHI). To assure the integration of indicators from diverse areas of concern, the development of this multidimensional tool relies on the scientific evidence on health determinants and health outcomes, complemented with interdisciplinary and participatory processes.

The 1st phase of this process corresponded to the selection of indicators considered relevant to evaluate population health at European regional level. From the preliminary set of 130 indicators, the EURO-HEALTHY panel of experts and stakeholders reached consensus on 80 indicators. The 2nd phase, related with the data collection of those indicators at regional level (NUTS 2) revealed constraints on integrating all the indicators selected in the PHI, therefore only 66 were chosen.
Arising from the development of this multidimensional tool, two main challenges were identified in measuring the health of European population at regional level with the use of multiple indicators.

First, it has been recognized an important gap between the indicators considered relevant to evaluate population health and the indicators that are routinely collected and available through official data sources, namely at regional level. The recognised gaps are especially critical in terms of housing conditions (e.g. building dampness), water and sanitation (e.g. water quality) and lifestyle behaviours (e.g. physical activity). Although several international organizations, as WHO-EUROPE, OECD and EUROSTAT, produce accessible databases, most of the provided data is on health-related indicators (e.g. mortality, morbidity, healthcare system) and it is only available at national level, leading to mis-identification of regional inequities.

Second, there are indicators routinely collected by official sources whose temporal and geographical' accuracy is not fully guaranteed for specific regions or years. This is due to the availability of data that varies enormously between European regions. This lack of comparable and sustainable data across European regions has been also identified, namely in terms of economic and social environment (e.g. deprivation), built environment (e.g. housing conditions) and health services (e.g. hospital beds). The need of a more comprehensive data collection across all regions is especially important when considering the health determinants that go beyond the health care system.

The identification of major gaps between the indicators that experts and stakeholders considered relevant to be included in the PHI and the data that effectively is collected at regional level, could represent an asset on defining future needs on European indicators where data collection is needed, leading to a better evaluation of policies' impact on health.