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COMMENTARY

The role of geographic context on mental health: lessons from the implementation of mental health atlases in the Basque Country (Spain)

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The role of context in the field of health is a growing area of interest despite the difficulty in delimiting and defining what exactly is meant by this term (Health Foundation, 2014). The paper by Astell-Burt and Feng provides an excellent opportunity for reflecting on the present and future challenges in understanding the role played by the geographical environment on mental health.

The well-documented existence of mental health inequalities in Spain, whether in the child and adolescent (Barriuso-Lapresa *et al.* 2012), employed (Cortès *et al.* 2004) or general-native and immigrant- (Rodriguez-Álvarez *et al.* 2014) population, has a geographical component and must be a key factor in planning the supply and daily management of health services. As described by Astell-Burt and Feng, the contexts are space- and time-dependent and are multiple rather than singular. Managers and planners should not take them as 'given' but as something that will have multiple interactions with their decisions and whose history must be analysed and understood. Good forward-looking planning, cannot ignore the past, or the temporal dimension as a whole.

The complexity of contexts in mental health sometimes leads decision-makers and managers to treat them as background noise and try to abstract away from context, or analyse them using stereotypical frameworks, which contributes to decision-making inertia. These risks also apply to clinical teams in which evidence-based medicine has evolved to such a state that certain practices have become automated to the detriment of clinical judgment, a holistic perspective on individual patients and a comprehensive understanding of contexts (Greenhalgh *et al.* 2014).

A standardised study of the Basque Country's general health system and its various subsystems, such as primary care and mental health, offers excellent potential for international comparisons, given its specific characteristics: a relatively homogeneous system providing universal coverage; a model based on primary care in the community; good integration of primary care and mental health; and successful implementation of a model of comprehensive care for chronic conditions (Nuño-Solinis *et al.* 2013*a*).

Given the risks and challenges identified in part by Astell-Burt and others, the Basque Country began work on standardised coding of services over the period 2004–2008, using the European Service Mapping Schedule adapted for use in Spain (Salvador-Carulla *et al.* 2000). From 2011, the version of this instrument adapted to focus on chronic conditions (DESDE-LTC) (Salvador-Carulla *et al.* 2013) was used to develop a Mental Health Atlas in two of its three territories (Gipuzkoa and Bizkaia), for the dual purpose of understanding the situation and operation of the mental health system (including health, social and community health, and their proper affiliation in terms of composition, purpose and activity) and developing useful management and planning tools.

Both Atlases were developed on the initiative of middle management personnel in public mental health service networks, building on experience gained in other regions of Spain such as Catalonia (Fernandez *et al.*, in press). The Atlases provide detailed demographic and epidemiological data, as well as information regarding service availability and capacity, which sets them up as an optimal tool for evidence-informed policy (Armstrong *et al.* 2013). In both territories, the existence of a detailed, unified description of existing health, community health and social facilities has

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been useful and has made it possible to initiate technical efficiency studies that will allow these two territories to be compared with other, similar areas.

Despite territorial differences in terms of facilities, resources and population served, approximately 1500 people work in public mental health services in Bizkaia and Gipuzkoa, providing coverage, through community and hospital facilities, to a population of approximately 1 900 000 or 85% of the population of the Basque Country.

Utility of the Atlases

The Mental Health Atlases, which combine standardised classification of services with GIS, have been used both as a diagnostic tool to establish the baseline of the mental health units and facilities in both territories, and as a key resource, from a health system management perspective, to facilitate the following actions at the organisational level:

1. Development of new strategic plans and deployment of a service model based on the following core goals:
    - Keep the patient in as familiar an environment as possible, avoiding unnecessary. hospital admissions.
    - Develop a collaborative intra- and interorganisational model, to promote. comprehensive care and efficient health system operation.
    - Foster care programmes for specific populations.
2. Regular updating of the activity data contained in the Atlas, incorporating them into the monitoring control chart in the Annual Management Plans.
3. Combining the age ranges in the Gipuzkoa child and adolescent population to fit the predominant age cluster in our environment (0–17).
4. Identifying shortfalls and/or surpluses in certain care facilities. In particular, the following have been detected in both territories:
    - A shortage of beds in acute day hospitals.
    - A shortage of specific day hospitals for child and adolescent care.
    - An excess of long-stay beds, despite trans-institutionalisation processes for patients from psychiatric hospitals to community health facilities.
    - In the case of Bizkaia, an excess of rehabilitation day hospitals overlapping with facilities of a similar nature provided by social services institutions.
5. Supporting previous work conducted in Gipuzkoa to reduce and transform long-stay/residential beds in psychiatric hospitals into adequately equipped, new hospital units for specific pathologies. This includes, for example, a unit for people with general learning disability and behavioural disorders, or psychiatric secure units, designed to offer a suitable alternative for serving prison sentences for serious crimes committed by people with severe mental illnesses who have special containment and control needs.
6. Commissioning and promotion of community-based residential care facilities (mini-residences) for people with severe mental illness, covering pre-existing geographical inequalities.
7. Using the IEMAC-ARCHO (Assessment of Readiness for Chronicity in Healthcare Organizations) model (Nuño-Solinis *et al.* 2013*b*) to assess the degree of implementation of the chronicity management model, from the outputs obtained in the Bizkaia Mental Health Atlas.
8. Growing awareness of the use of mapping technologies for other types of studies and collaborations, such as the geography of psychosis, or suicide attempt mapping, the first of which has already been implemented, and the second being in the planning phase.

Limitations

In our experience, the lack of active involvement of the organisations responsible for health, public health and social macro-planning in developing the Atlas prevented it from achieving its full potential, as the Basque Health System Service Organisations (middle management level) have very limited capacity for planning facilities and resources. Nonetheless, it has been useful for management purposes, as described above.

Moreover, the use of different, non-integrated information systems in health, social services and other public institutions, made it impossible to include updated socio-demographic variables in the Atlas, with the population and housing census data dating from 2001.

Finally, the use of the Atlas for management purposes requires a simple yet flexible method for continually updating the Atlas, in order to respond to changes in the spatiotemporal context.

Challenges

The experience of developing and implementing the Atlases as a planning and management tool has helped to identify the need for a new, inter-institutional structure of governance, for the design and provision of more efficient and effective community mental health services, to allow better coordination with hospital and primary care and other social services.

The prospect of national and international comparisons offers a multitude of benchmarking opportunities, but also requires the development of innovative management systems to promote this kind of organisational learning.

Conclusions

From a management perspective, the greatest value of this methodology, as applied in the Basque Country, has been the effective display of its utility for the future work, providing a tool which, by combining maps and databases, helps us to identify areas for improvement for the reorganisation of community health services and facilities. The inclusion of maps and databases of actual, current data, together with the use of shared terminology, gives us a greater understanding of the contextual complexity within which mental health provision operates, providing managers, politicians and health system planners with new tools for planning, management, clinical practice development and research. In the future, this strategy should incorporate comparisons with other regions in Spain and in Europe, and integrate planning information from other relevant sources such as health surveys, drug prescription, drug abuse or crime and justice.

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