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EDITORIAL

MedCHAMPS: mediterranean studies of cardiovascular disease and hyperglycaemia: analytical modelling of population socio-economic transitions

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This supplement focusses on the *MedCHAMPS* project (Mediterranean studies of cardiovascular disease and hyperglycaemia: analytical modelling of population socio-economic transitions, http://research.ncl.ac.uk/medchamps/). *MedCHAMPS* was a European Commission funded research project involving institutions from North Africa and the Middle East (occupied Palestinian territory, Syria, Tunisia and Turkey). It aimed to make recommendations about policy initiatives likely to be the most cost-effective in reducing the burden of cardiovascular diseases (CVD) and diabetes. The project developed a conceptual framework, the policy effectiveness and feasibility loop (Bowman et al. 2012; Maziak et al. 2013), specifically designed to encourage the use of evidence in forming healthy public policies. The major components were qualitative situational analysis, epidemiological modelling including cost-effectiveness analyses (Abu-Rmeileh et al. 2012, 2013; Rastam et al. 2012; Al Ali et al. 2013; Saidi et al. 2013; Unal et al. 2013; Mason et al. 2014), and option appraisal.

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Three papers in this supplement illustrate key results of epidemiological modelling and cost-effectiveness analyses. The first described worrying adverse risk factor trends in each country studied. Mean body mass index (BMI) and diabetes prevalence were increasing steadily and smoking prevalence remained very high in men. A second paper applied the diabetes "IMPACT" model, a tool developed specifically for this research project, in Turkey. Adverse trends in major diabetes risk factors (BMI), in conjunction with population growth and ageing, could result in an increase in diabetes prevalence from 7 % in 1997 to 31 % by 2025 in Turkey.

These epidemiological models identified possible targets for intervention which included reducing dietary salt intake. A third paper, building on an initial comparative analysis (Mason et al. 2014) estimated the cost-effectiveness of possible interventions to reduce dietary salt intakes in Syria. These included health promotion campaigns, labelling of salt content on packaged foods, and reformulation of salt content within processed foods. All were deemed potentially cost-effective, particularly salt labelling and reformulation.

The other key, qualitative, strand included (1) a situation analysis of current CVD and diabetes policies, and (2) a contextual analysis of the ways in which healthcare systems managed CVD and diabetes. Research was designed around three distinct 'levels' of data collection: document analysis; key informant interviews; and clinic fieldwork. A particular challenge was that qualitative research was relatively new to these countries. We believe these papers are among the first to apply qualitative methods to assessing health systems and services in this region. Three of the four qualitative papers in this supplement—from Tunisia, Turkey and Syria—discuss the healthcare system problems of managing diabetes and CVD. The fourth—from Tunisia—

presents patient understandings of these diseases and treatment received in local clinics.

The three papers on the healthcare system exhibit various important commonalities even at the time of investigation in 2009. The importance of NCDs was increasingly well recognized. However, institutional responses were compromised by at least three critical weaknesses. First, a lack of system-wide coordination across the sector. Second, the ineffectiveness or even non-existence of health information systems, for both patient treatment and financial management; and third, considerable gaps in staff training in care for CVD and diabetes. In Tunisia and even more in Syria, we also highlighted a fourth factor: the severe pressures on healthcare budgets—a situation which the NCD burden greatly amplifies. These institutional weaknesses must be set alongside a continuing global trend: the steady withdrawal of the state from the provision of healthcare, and the parallel growth of private sector providers. While urban middle classes have been able to obtain improved services, those in rural areas and the poorer sections of society have generally seen the services they relied upon diminish. As in other parts of the world, inequities in healthcare are thus being accentuated. Indeed, as the paper on the Tunisian healthcare system mentions, this was one factor in the Tunisian revolution.

Following completion of the epidemiological modelling and situation analysis, the key final part of the project was to share these potentially complex results with policy makers in a way which aimed to engage opinion and ownership. Option appraisal was carried out in conjunction with local and national policy makers in each of the four countries; using a simple multi-criteria decision analysis method. A preliminary list of policy options was identified by researchers using results from both the epidemiological modelling and situation analyses. These policies were rated by policy makers against predefined criteria, to generate a priority score and rank. The method was pragmatic, rapid, participatory, and effective. It might therefore be suitable for setting priorities in other middle income countries.

MedCHAMPS was a unique project, attempting to collate and summarise evidence on CVD and diabetes risk, burdens, health services and interventions, and share this with policy makers in a way that encouraged debate and action. With the current political crisis in the region and the pre-existing move towards the increasing privatization of healthcare, the challenges grow ever greater. One of the key lessons of this research is the urgent necessity for population-based, intersectoral, health-promoting policies to control NCD risk factors. Regulatory and legislative measures might be particularly effective. Addressing the social determinants of NCDs and promoting universal health coverage are also of critical importance.

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