



## Background Paper: Health needs assessment in general practice: the Cretan approach

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# Health needs assessment in general practice: the Cretan approach

Christos Lionis, Erik Trell

A comprehensive practice-based and public health-based approach to needs assessment has been established during the last years in primary healthcare (PHC) in Crete, Greece. This article describes the developments and achievements in health monitoring in PHC in Crete. An attempt is made to discuss the methodology used by the Cretan Health Centres for assessment of needs and outcomes together with results. General information sources including continuous morbidity or mortality data recording, and data derived from community-oriented programmes were used in this assessment and the process is presented here. This Greek approach seems to be effective in helping GPs and PHC staff to set priorities and plan primary healthcare services, while a broader discussion over the role of the Greek and Mediterranean context remains.

**Keywords:** needs assessment, general practice, rural areas, Greece

## Introduction

Much attention has recently been paid to the contribution of general practitioners (GPs) and PHC teams in needs assessment. The WHO Regional Office for Europe organised a working group on needs assessment in local areas and the creation of a network was discussed in a recent workshop of this organisation in Heraklion, Crete.<sup>1</sup>

A National Healthcare System finally came about in Greece in the early 1980s and there are now 180 PHC centres functioning in rural areas. General practice is starting to be seen as professionally distinct, and a four-year vocational training programme has now been established by law. For

the first time, a new University in Crete has developed a Department of Social Medicine including general practice as an academic position and an educational field. This paper aims to describe developments and achievements in health monitoring in PHC in Crete, Greece. It will attempt to discuss the methodology used by the health centres for need and outcome assessment together with results.

## The primary healthcare network in Crete

One of the most important targets of this department was to promote PHC in Crete through the development of a network between the medical faculty, university hospital and rural health centres in collaboration with local authorities and representatives of the population. The experiences gained from the Spili Health Centre (SHC) led to the development of the PHC network, and a written consensus between this department and ten rural PHC centres was signed. The assessment of the health status of the population in the catchment area of the health centres of this network in Crete and the identification of its problems comprises the first step in the formal planning of primary healthcare services.<sup>2,3</sup>

## Methods used in assessing population health needs

Although settings and resources vary between health centres and they seem to have a potential impact on the development of the work, a common methodological approach in assessing the population's needs has been tested over the past few years and seems to be effective in the present local conditions in rural Crete. Demographic, morbidity, and mortality data, as well as those derived from community-based programmes, provide major information sources for needs assessment in PHC in Crete.

## Demographic data

The local health team in collaboration with the local authorities carried out a local census. Routine data collection concerning population size, composition, births, deaths and cause of deaths, marriages, divorces and immigration were collected annually by the SHC, and later by the other PHC centres, in collaboration with the local registries.<sup>4</sup>

## Care utilisation data

The university department in collaboration with Dalby Health Sciences Centre, the University of Lund, Sweden and the SHC installed and further developed a com-

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**Table 1.** Topics of community-oriented projects carried out in PHC in Crete.

- Cardiovascular risk factors
- Hepatitis A, B and C
- Prevention of breast cancer and cancer of the cervix in females
- Urinary incontinence in women
- Alzheimer's disease and other neurodegenerative diseases in the elderly
- Depression in the elderly
- People needing home care
- Congenital urinary anomalies in schoolchildren
- Vaccinations coverage in schoolchildren
- Neurometabolic diseases in children
- Heavy metals in milk teeth

puterised medical records system.<sup>5</sup> This computerised information system, which was initially only used at Spili, was further developed at Anogia Health Centre (AHC) and it adopted contemporary technology making it more suitable in the existing PHC framework.

#### *Morbidity data*

On the basis of the data held on the information system and the visits made to the SHC, the most common diagnoses defined according to the ICHPPC-2-Defined, were sought.<sup>6-7</sup> The diagnoses of known hypertension, diabetes mellitus and atrial fibrillation were documented retrospectively reviewing all the medical records registered in the health information system, which has been expanded to the participating network health centres.<sup>8-10</sup>

#### *Mortality data*

Death certificates from the local registers were reviewed and the cause of death was extracted. Routine information data, including mortality, were collected. Copies of all deaths reported to the municipal registry were sought and cause of death was noted. The WHO regulations (ICD-9) were used in this evaluation.<sup>11,12</sup>

#### *Community-oriented programmes*

Data for needs assessment were derived from different community-oriented primary care projects.<sup>13-17</sup> The topics of these projects are illustrated in table 1.

#### **Conclusions and lessons learned**

Several conclusions concerning the population health status were formed from the general practice needs assessment in Crete and the following are of great value.

- It is notable that the disease panorama in rural Crete presents many similarities in comparison with those prevailing in north and west Europe. Uncomplicated hypertension, and chronic bronchitis and other diseases of the respiratory system are the two most common diagnoses in men aged 65 years and over, while in the females of the same age uncomplicated hypertension and diabetes mellitus are most prevalence.<sup>7</sup>

- A significant variation in the prevalence of diabetes mellitus among different PHC areas was found after age and sex standardisation.<sup>8,9</sup>
- Chronic atrial fibrillation was found to be a common problem in the practice population and many of these patients had not received the appropriate therapy to prevent serious complications.<sup>10</sup>
- The standardised mortality rate from ischaemic heart disease was found to be still low in both men and women in comparison with that of Greece as a whole. Malignant neoplasms of blood organs and the brain and as well as suicide as a cause of death in some remote rural areas need more attention and monitoring.<sup>11</sup>
- Cardiovascular risk factors, particularly smoking, hypertension and high level of cholesterol, were common among populations in areas defined as at a low risk for ischaemic heart disease.<sup>13</sup>
- Hepatitis C comprises a serious public health problem in defined rural areas.<sup>14</sup>
- Urinary incontinence is a common problem among women usually underestimated by the health services because patients do not consult their doctors as they do not consider it a serious problem.
- Dementia and depression are found to be among the most common mental disorders in home isolated elderly.
- Diseases of the nervous system and sensory organs comprise the leading ICD-9 category of people needing home care.<sup>15</sup>
- Urogenital development anomalies in boys of primary school age still remain underdiagnosed and phimosis as well as cryptorchidism are included among the common diagnoses when a screening was carried out at school.
- A surveillance system of schoolchildren immunisation coverage is necessary, since low coverage of vaccinations against pertussis, measles and mumps, and rubella has been found.<sup>16</sup>

**Table 2.** Lessons learned from the Cretan approach to needs assessment in practice.

- Needs assessment can be performed by GPs but a PHC team gives a broader perspective
- GPs can effectively use the collected information not only to estimate the frequency of chronic diseases but also for patient management
- A computerised medical records-based health information health system seems to be an essential tool for needs assessment in general practice
- A commitment to improve the health status of the population in PHC requires both understanding and written consensus among those in regular contact with the practice and university researchers, as well as the community leaders
- Individual-based screening is likely to be effective and it requires an efficient information system and services organised and provided at local level
- Hidden morbidity may be a high priority for planning health promotion programmes at the PHC level, facilitating population needs assessment and management of patients with chronic disease

- Neurodegenerative metabolic diseases in children were not rare in rural areas and organic acidurias was found to be the most common diagnosis.<sup>17</sup>

### Lessons learned

The Cretan approach to needs assessment shows many similarities to other practice-based ones which have recently been published,<sup>18,19</sup> while it supports the cooperation of public health practitioners and GPs in needs assessment in the PHC setting.<sup>20</sup>

The lessons learned from this approach are synthesised in table 2.

### Conclusion

In conclusion, although health needs assessment is not included among the traditional tasks of GPs and new skills are thus required, this approach seems to be effective within the Greek framework. A number of concrete recommendations to GPs and other PHC workers, as well as to local authorities, have been formulated. This scheme set up at the PHC network in Crete is a great breakthrough for both researchers and PHC workers and could constitute the basis for future activities within the Greek context. ■

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