working groups were then refined at a series of international meetings. The main elements of information required for each proposed indicator (characteristics, operational definition, possible sources of data, methodological issues, and availability) were summarised on a standard form. A web-site of all pertinent EUROCHIP information has been created (www.istitutotumori.mi.it/project/eurochip/homepage.htm). A methodology working group studied the ways to standardise, collect and validate health indicator data.

The preliminary list of indicators was grouped along three axes: i) natural history of disease, ii) type of factor (demographic, socio-economic, health status, determinant of health, or health system related) and iii) cancer site. A list of indicators was produced (table 2). Some of the indicators (table 2) have already been proposed by other HMP projects, but a large number of new indicators was also identified. These were grouped into five separate domains; smaller meetings of European experts in these domains were held to review the relevance of each of the indicators and to identify any problems with them.

Before the list of indicators is finalised for the European Union – and work begins in earnest on actually collecting the data that will be used to generate the indicators – the clinical, scientific and technical staff involved in EUROCHIP feel it is vital to have extensive feedback from all interested parties.

We therefore extend a sincere invitation to all involved in the fight against cancer – whether in the clinical, epidemiological, scientific or political sphere – to send us your comments and criticisms on the proposed list of indicators (table 2). You will be contributing positively to the establishment of an effective cancer health indicator database for Europe.

Please send your comments to: Andrea Micheli, Unit of Epidemiology, Istituto Nazionale per la Cura e lo Studio dei Tumori, Via Venezian 1, 20121 Milan, e-mail: micheli@istitutotumori.mi.it

NOTE

Look at the following web-site to have detailed clarifications on the proposed indicators in table 2:
www.istitutotumori.mi.it/project/eurochip/homepage.htm


The authors thank Dr. Camilla Amati and Dr. Nicole Bianchi for helping in the administrative aspects of the project and for reviewing the manuscript.

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Health Indicators in the European Regions

A. OCHOA, F. IMBERT, B. LEDÉSERT, A. PITARD, O. GRIMAUD et al. *

Regions in the European Union are assuming increasingly important political and administrative roles. In the field of health monitoring, the exchange of health indicators at the regional level across Europe would allow health professionals and decision-makers to put the characteristics of their own area in the wider context of other regions across the EU.

Between 1999 and 2001 the ‘Fédération Nationale des Observatoires Régionaux de Santé’ (FNORS) has undertaken a project (ISARE I), part of the European Health Monitoring Programme (HMP), entitled ‘Health Indicators in the European Regions’ – financed by the European Commission.

The aims of the ISARE I project were to identify for each country in the EU the most appropriate sub-national level
at which health indicators might be exchanged and to assess the extent of data availability at these levels. Existing literature on health care systems and local democracy, and contacts with representatives from each country, were used to identify these ‘health regions’. The ISARE approach focused on the sub-national administrative levels or other divisions that were most likely to be appropriate for health information exchange and decision-making.

The availability of key data at regional level was explored by means of a questionnaire based on the framework of the European Community Health Indicators project (ECHI).

The ISARE project was able to make recommendation on the appropriate ‘health region’ for 13 countries. No recommendation on an appropriate regional level could be made in either Finland or Greece. In Greece, a new administrative tier, with corresponding health indicators, was introduced at the beginning of September 2001 but there was insufficient information to integrate this tier into the work of the project at that time. In Finland, significant responsibilities regarding health and health care lie in the municipalities, which form the basis of local democracy. However their small population size precludes them from being an appropriate level for health information exchange. Further thought needs to be given to this problem and another level, such as ‘hospital-catchment level’ may be appropriate.

The project has thus identified 300 ‘health regions’ with an average population of around 1.2 million, although with considerable variation. All the regions identified have responsibilities in the field of health promotion and all but one perform the function of public health reporting. In ten of the 13 countries for which it was possible to make recommendations, the regions map to areas of responsibility of democratic bodies and 9 correspond precisely to a level of the existing NUTS classification. This nomenclature of territorial units was drawn up by Eurostat in order to provide a coherent territorial breakdown for the compilation of EU regional statistics.

The wide scope of the questionnaire meant that responses did not always cover the full range of data investigated. In some countries the availability of data could only be assessed for some health regions. As expected these findings suggest that demographic and mortality data are widely available. While recognising the challenge of assuring data comparability, it would be possible to build some indicators related to health care professionals and facilities, health care utilization, living and working conditions, socio-economic indicators and prevention activities. However, availability of data regarding generic health status and morbidity is low at regional level.

The ISARE I project suggests that despite the degree of diversity between the recommended ‘health regions’, the exchange of health indicators is possible. All of the tiers identified are already involved in public health reporting.

A follow-up project (ISARE II) has been undertaken with the aim of collecting data from each ‘European health region’. This data collection process will also provide information on the sources of data and their definitions, making possible a judgment about their comparability. The final outcome of this project will be the creation of a European database of regional health indicators.

During this phase of ISARE, in UK, only England was included in the project. In France all the regions were included (‘départements d’outre mer’ are regions), the same in Portugal (Madera, Açores) and Spain (Baleares, Canary) for distant regions with the exception of ‘autonomous territories (Ceuta, Melilla).

### Table 1

Regional level recommended by the ISARE project for health information exchange in 13 EU member states

<table>
<thead>
<tr>
<th>Country</th>
<th>Recommended ‘health region’</th>
<th>Number of regions</th>
<th>Average population (000)</th>
<th>Corresponding (or nearest) NUTS level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Bundesländer</td>
<td>9</td>
<td>892</td>
<td>2</td>
</tr>
<tr>
<td>Belgium</td>
<td>Province</td>
<td>10+1</td>
<td>920</td>
<td>2</td>
</tr>
<tr>
<td>Denmark</td>
<td>Amtskommuner</td>
<td>14</td>
<td>335</td>
<td>3</td>
</tr>
<tr>
<td>England</td>
<td>Health Authorities</td>
<td>99</td>
<td>503</td>
<td>(3)</td>
</tr>
<tr>
<td>France</td>
<td>Régions</td>
<td>26</td>
<td>2,315</td>
<td>2</td>
</tr>
<tr>
<td>Germany</td>
<td>Land</td>
<td>16</td>
<td>5,090</td>
<td>1</td>
</tr>
<tr>
<td>Ireland</td>
<td>Health Board</td>
<td>10</td>
<td>370</td>
<td>(3)</td>
</tr>
<tr>
<td>Italy</td>
<td>Regioni</td>
<td>20</td>
<td>2,857</td>
<td>2</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>National level</td>
<td>1</td>
<td>420</td>
<td>1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>GGD</td>
<td>50</td>
<td>315</td>
<td>(3)</td>
</tr>
<tr>
<td>Portugal</td>
<td>Health care region</td>
<td>5</td>
<td>1,721</td>
<td>(2)</td>
</tr>
<tr>
<td>Spain</td>
<td>Autonomous Communities</td>
<td>17</td>
<td>2,344</td>
<td>2</td>
</tr>
<tr>
<td>Sweden</td>
<td>County</td>
<td>21</td>
<td>422</td>
<td>3</td>
</tr>
</tbody>
</table>

| All     |                             | 299               | 1,166                   |                                       |

a: Ten provinces + the Brussels capital region.
b: Since the project was undertaken, health authorities in England have been abolished and replaced by primary care trusts (302) and strategic health authorities (28). In addition public health responsibilities have been placed at the regional government office level (9). This level has an average population of 5.67 millions, corresponds to NUTS 2, and it is likely that this level will be used for ISARE II.