UICC population survey of cancer-related beliefs and behaviours

Preliminary findings: cancer-related beliefs and behaviours of low-, middle-, and high-income countries
There is good evidence to show that beliefs about cancer causation, early detection and cancer treatment will influence lifestyle choices, participation in cancer screening programmes and treatment decisions. Organized, evidence-based, population-focused cancer prevention programmes at a population level have the capacity to shape changes in cancer-related beliefs and behaviours to reduce the risk of cancer in later life. However, since such beliefs and behaviours are often culture-specific, programmes need to be informed by reliable local population survey data in order to design appropriate messages and strategies and evaluate progress.

In 2007, the International Union Against Cancer (UICC) developed a population survey about cancer-related beliefs and behaviours, using a standard set of survey methods and comparable questions that could be ultimately administered in all member countries. Expertise and funds were generously provided by the Roy Morgan Research Company and their Gallup International affiliates in many countries. A technical advisory group led by Dr Melanie Wakefield, Director of the Centre for Behavioural Research in Cancer at the Cancer Council Victoria, Australia, has been convened to advise on survey development and reporting.1

The overall aims of the project are:

- To enhance the collection and comparability of population survey data on knowledge, attitudes and behaviours relevant to cancer risk across UICC member countries.

- To develop the capacity in cancer control organizations to understand and use such survey data in order to develop population-based cancer control programmes and policies and to evaluate their impact.

**Survey methods**

The survey includes questions on risk factor behaviours (tobacco use, sun protection, alcohol use, physical activity, body mass index), participation in cancer screening, and perceptions about risk factors for cancer, cancer curability and treatment.

The survey has been conducted either face to face or via telephone, depending upon each country’s communication infrastructure and the practices of each Gallup research affiliate. The survey was administered in the country’s dominant language(s). In some countries, this survey was included as part of a larger omnibus questionnaire. Prior to analysis, the data were weighted to reflect country or city population. The margin of error in the survey results presented below is +/- 1.32% (95% CI), assuming random selection of survey respondents. Regardless of the administration method,

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1. Members include Dr Sharon Campbell, Canada; Dr Michael Stefanek, United States; Dr Jane Wardle, Britain; Dr Hein de Vries, Netherlands.
the same questions were asked in each country. Since late 2007, the 29 countries that have completed data collection are:

<table>
<thead>
<tr>
<th>Australia</th>
<th>Dominican Republic</th>
<th>Kenya</th>
<th>Peru</th>
<th>UK</th>
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</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Georgia</td>
<td>Lebanon</td>
<td>Philippines</td>
<td>Ukraine</td>
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<tr>
<td>Bolivia</td>
<td>Greece</td>
<td>Mexico</td>
<td>Romania</td>
<td>USA</td>
</tr>
<tr>
<td>Canada</td>
<td>Guatemala</td>
<td>New Zealand</td>
<td>Serbia</td>
<td>Uruguay</td>
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<td>China</td>
<td>Indonesia</td>
<td>Nigeria</td>
<td>Spain</td>
<td>Turkey</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Israel</td>
<td>Panama</td>
<td>Venezuela</td>
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</tbody>
</table>

A further 12 countries are currently collecting data or have agreed to participate in the upcoming months. The additional countries are Albania, Algeria, Belgium, Ethiopia, Finland, Germany, Ghana, India, Italy, Ivory Coast, Pakistan and Switzerland.

**How can these survey data be used?**

This summary of preliminary findings aggregates survey data by three World Bank income categories. The total sample size for this preliminary report is 29,925 respondents, made up of 5,521 respondents in low-income countries, 15,746 in middle-income countries and 8,658 in high-income countries. Ultimately, survey data for each country will be provided to the UICC member organization(s) in each country for their own local planning purposes:

- Population survey data for one’s own country can provide excellent material to generate local news media coverage and can assist organizations with their advocacy activities.
- The data will provide countries with helpful information to assess areas where education may be needed and thus assist programme planning efforts.
- These population survey data provide a baseline against which progress in future years may be evaluated.
- Since many countries are participating in the survey, it will be possible for countries to compare their own results with those of other individual countries.
- Unit record level data is available for further data analysis by the UICC member organization, provided it is not sold on to any third party.

**Data highlights**

*Beliefs about cancer curability*

Respondents were asked, “Some people believe once a person has cancer not much can be done
to cure it – do you agree or disagree with that?” Items were reverse-scored for reporting. As indicated in Figure 1, 83% of respondents in high-income countries agreed that much could be done to cure cancer, compared with only 61% of respondents in middle-income countries and 52% in low-income countries. People in high-income countries have access to a greater range of cancer treatment options, and partly due to cancer screening programmes, a greater proportion of cancer cases are diagnosed at an earlier stage when treatment can be more successful. However, in middle- and lower-income countries, treatment options may be more limited, especially because a greater proportion of people present with cancer when it is far more advanced and less likely to be treatable. When they become available, cancer screening programmes in low- and middle-income countries will need to overcome these low expectations of the success of cancer treatment, which serve as a barrier to screening participation.

<table>
<thead>
<tr>
<th>World Bank income category</th>
<th>Cure</th>
<th>No cure</th>
<th>Undecided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>52</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>Middle</td>
<td>61</td>
<td>31</td>
<td>8</td>
</tr>
<tr>
<td>High</td>
<td>83</td>
<td>11</td>
<td>6</td>
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</tbody>
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*Figure 1. Beliefs about a cure for cancer following diagnosis, by World Bank Income category*

**Beliefs about participation in treatment decisions**

To assess medical treatment decision-making preferences, respondents were asked, “When making a decision about what medical treatment to have, what is your preference?” Response categories were “The doctor should make the decisions using all that is known about treatment”, “The doctor should make the decisions but strongly consider your needs and priorities”, “The doctor and you should make the decisions together on an equal basis”, “You should make the decisions, but would strongly consider the doctor’s opinion”, “You should make the decisions using all you know or learn about the treatments” and “Can’t say”. The two “You should make...” categories were combined for scoring and reporting. As shown in Figure 2, most respondents in low-income countries preferred the doctor to make the decisions based on treatment knowledge. Those in middle-income countries had a more even spread of views about the relative responsibilities of the doctor or the patient in treatment decisions. However, for respondents in high-income countries,
decision-making that allows for more self-determination was preferred. These results suggest that people in high-income countries may be more educated about treatment options and thus expect to be able to contribute to their own medical treatment decisions.

![Medical treatment decision expectations](image)

*Figure 2. Medical treatment decision expectations, by World Bank income category*

**Frequency of alcohol consumption**

Alcohol consumption was determined by asking, “In the last 12 months have you had an alcoholic drink of any kind? If yes, about how often do you have an alcoholic drink?” If respondents replied “most days” or “5 or 6 days a week” they were classified as a frequent consumer, if they replied “3 or 4 days a week” or “once a week” they were classified as a moderate consumer, whilst if they replied “2 or 3 times a month” “less often” or “rarely” they were classified as an occasional consumer. Individuals who responded “no”, “never”, or “don’t drink” were classified as never consuming alcohol. Figure 3 shows that alcohol consumption becomes more frequent as the income status of countries increases. The majority of respondents in low-income countries do not drink alcohol, compared with 46% and 24%, respectively, of respondents in middle- and high-income countries. By comparison, in high-income countries, 28% were moderate drinkers and 11%, frequent drinkers. Respondents in high-income countries were nearly three times more likely to identify that they were frequent alcohol consumers than low- or middle-income country respondents.
Beliefs about alcohol and cancer risk

Respondents were asked whether they thought that drinking alcohol increases a person’s risk of cancer. Overall, 56%, 71% and 51% of respondents in low-, middle- and high-income countries, respectively, thought that drinking alcohol did increase cancer risk. Figure 4 shows that within each income category, those who more often drank alcohol were less likely to perceive that alcohol increased cancer risk. Of note, 52% of frequent drinkers in high-income countries and 49% of frequent drinkers in middle-income countries believed there was no cancer risk associated with drinking alcohol. Overall, these results suggest that there may be limited awareness and/or acceptance of the epidemiological evidence that increasing consumption of alcohol raises the risk of cancers of the mouth, pharynx, larynx, oesophagus, liver, breast (in women), colon, liver, and rectum. Public education efforts may need to take account of the fact that those at higher risk tend to be more likely to discount the risk.

Beliefs about cancer risks

The survey included a range of questions concerning perceptions of the things that increase a person’s risk of cancer. The survey results showed that there are common misconceptions about causes of cancer. For example, in Figure 5, more people believed that air pollution increases the risk of cancer (where the evidence suggests at most a minor contribution to cancer risk) than the

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percentage who believed that being overweight increases the risk of cancer (where there is good evidence of a substantial contribution to risk). This probably reflects a common bias in perception of risks, in that people are more ready to accept things outside of their control (e.g. air pollution) as posing more cancer risk than things that are within their control (e.g. body weight).

Figure 4. Perceived cancer risk of drinking alcohol, by level of alcohol consumption and World Bank income category

Figure 5. Perceived cancer risk of being a) overweight and b) air pollution, by World Bank income category
How can I obtain more information about the survey?

For more extensive information on the survey results by World Bank income category, go to www.uicc.org or www.cancervic.org.au/uicc. A presentation on the survey results by Dr David Hill, UICC President (2008-2010), will occur at the World Cancer Congress on Thursday 28 August 2008 in the session entitled “WHO-UICC collaboration in response to the cancer epidemic” from 15.30 to 16.30 in Room D. Ultimately, individual country data will be provided to the UICC member organization(s) in each country. If you seek guidance on the collection or use of data such as these (particularly if you work in a low- or middle-income country), please contact Dr Hill through the UICC secretariat or email UICCpopulationsurvey@cancervic.org.au

For more information about “Today’s children, tomorrow’s world” and the World Cancer Campaign, visit www.worldcancercampaign.org or contact wcc@uicc.org

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