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Health survey Mechelen 1996

by

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Abstract

Problem: *In 1992 the town of Mechelen decided to become one of Belgium's two "Healthy cities", which implied that a systematic municipal Health Policy Plan had to be worked out. With a view to accomplishing this plan, the town of Mechelen ordered the Provincial Institute for Hygiene (PIH) to extend its standard provincial health survey to a representative sample of the town of Mechelen. In future, this survey will be repeated regularly, in order that changes in the state of public health be recorded, and, health policy adapted to these changes.*

Method: *The questionnaires and interview techniques used in these surveys are based on those in the Health Survey of the province of Antwerp, itself based on the survey carried out in the Netherlands, which was co-ordinated by the Dutch Central Bureau for Statistics (CBS). The Mechelen survey was carried out in a randomly drawn sample of 791 families, obtained from the State Register address file of a total of 31,822 addresses (families). The interview period was from 1 August 1995 till 31 January 1996. Four questionnaires (A, B, C, D) were used: questionnaire A concerned general data, B was intended for persons 15 years*

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and above, C for persons under 15 and D also for persons 15 years and above. The first three questionnaires were answered orally, the last one had to be filled out by the respondents themselves. The questionnaire as a whole, focused on medical consumption, mental well-being, lifestyle and preventive behaviour.

Results: *The total response for the 791 addresses was 57.9% (458 families) and covers 1,075 individuals. We generally obtained results which were poorer than those for the entire province of Antwerp. For almost 12% of the inhabitants of Mechelen (against 10% in Antwerp) there is a high degree of certainty that psychological support is required. Besides the state of public health, medical consumption and lifestyle, as well as preventive behaviour were measured in this health survey. The general conclusion is that the socio-economic stratification (SES) still influences the state of public health strongly, in Mechelen as well as in the province of Antwerp as a whole.*

1. Introduction

The Provincial Health Survey is a first step in the general BELGA plan (*Bel*eidsplan *G*ezondheid Provincie *A*ntwerpen – Health Policy Plan Province of Antwerp) that was approved by the Antwerp Provincial Council in 1995. In this way, the Province of Antwerp wished to express its desire to systematically work out a Health Policy Plan.

In 1992, Mechelen became part of the WHO-inspired "Healthy Cities" project.

By accepting the "Healthy City" label, the town of Mechelen formally committed itself to drawing up a purposive and systematic Health Policy Plan. Considering the analogy of this project with the general Antwerp Health Survey, it is hardly surprising that the town of Mechelen commissioned the Provincial Institute for Hygiene to extend its Health Survey for the town of Mechelen, in order to facilitate significant comparison of the results of both surveys.

2. Objectives

The objective of a health survey is to give a complete overview of the state of health, medical consumption, lifestyle and preventive behaviour

of the overall population. A health survey offers statistical data on the whole population. The majority of the other types of statistical data only provide figures relating to a certain part of the population, i.e. figures on the deceased (mortality) or on people who are ill or have been ill (morbidity).

The data of the health survey can also be linked to individual demographic and socio-economic background data as there are: age, sex, civil state, education, profession, income,....

With a view to the detection and the follow-up of trends, and examining the influence of certain programs or policy measures, the study must be repeated regularly. In the Netherlands, a similar health survey is done on a regular basis and in Denmark a study is carried out every two years.

Health survey yields a considerable amount of relevant policy information, particularly when the aim is the determination of priorities and the drawing up of a policy plan. The Health Survey Mechelen 1996 is intended as a basis for the future provincial and municipal health policy.

3. Methods

3.1. Co-operation

Because of parallelism with the global "Health Survey Province of Antwerp 1995-1996" (1), the survey was committed to the Provincial Institute for Hygiene, with the co-operation of the Central Bureau for Statistics in the Netherlands (NCBS). The co-operation consisted mainly in the use of the validated questionnaires, used in the Dutch Health Survey since 1981, assistance during the development of the training sessions on interview techniques and analysis of the collected data.

3.2. Sample survey

The survey was carried out for a random sample of 791 families from Mechelen, taken from the State Register. The address file counted a total number of 31,822 addresses on 1 March 1995. The addresses of institutions, homes and hospitals were not included.

3.3. Interviewers

The team of interviewers consisted of people from the town administration of Mechelen and of interviewers especially recruited for this pur-

pose. They all received an intensive training in interview skills supervised by the regional Health Co-ordinator of the Provincial Institute for Hygiene. They also received special identification to assist them in their work.

3.4. Announcement and anonymity

The survey was widely announced at a press conference, through articles in the city information bulletin and via the newspapers, local television and radio, as well as through personally addressed letters.

Throughout the survey period as well as for the management and processing of all the survey data, special attention was paid to compliance with the law of 8 December 1992, concerning safeguarding of personal privacy. The PIH is an authorised owner of a database and is registered at the Commission for Personal Privacy Safeguard, Waterloolaan 115, at 1000 Brussels, with identification number 000036325.

3.5. Planning

The data were collected between 1 August 1995 and 31 January 1996.

3.6. Questionnaires

There were four different types of questionnaires (A, B, C and D), A was used for general data, B for persons 15 years and above, C for persons under 15 and D also for persons 15 years and above. The first three questionnaires were answered orally, the last one had to be filled out by the respondents themselves. In this way, data of all the resident family members were obtained. Visitors were not interviewed.

The questionnaires focused on medical consumption, mental well-being, lifestyle and preventive behaviour. The content of the various questionnaires is shown in the following summary.

Questionnaire A (answered orally by the head of the family or the substitute head of the family):

- Composition of the household: age, sex, marital status and nationality.
- For each family member whether or not they are registered with a GP

Questionnaire B (answered orally by respondents over 15):

- Subjective opinion on their own health
- long-term (chronic) illnesses
- short-term functional restrictions
- medical consumption and the reason to take it
- use of spectacles, hearing aids
- height and weight
- dental condition
- accidents
- for persons over 55 need for assistance (ADL: Activities of Daily Living)
- socio-economic variables* (education, profession, income)
- expenses for health care and medication

Questionnaire C (answered orally by respondents under 15):

- subjective opinion on their own health
- long-term (chronic) illnesses
- short-term functional restrictions
- medical consumption and the reason to take it
- use of spectacles, hearing aids
- height and weight
- height and weight at birth, breast-feeding history
- visits to Kind & Gezin (Family health care organisation)

Questionnaire D (answered in writing by respondents over 15):

- changes in health situation
- long-term functional restrictions (OECD score, 7 items)
- lifestyle*: smoking and drinking habits, diet, blood-pressure, car safety belt use and observance of the drinking and driving laws, attitude towards health and illness, physical exercises, skin cancer risk reduction, breast and cervical cancer prevention (women only), blood donor, right or left-handed
- psychosocial well-being* (GHQ: General Health Questionnaire)

* These items differ to some extent from the NCBS questionnaires.

3.7. Processing

Data were analysed with SPSS 6.1.

J-T, Odds Ratio, Likelihood ratio (LR) and Chi-Squared tests were applied to determine significance levels.

4. General results

4.1. Total response

The interviewers had to register the cause of non-response meticulously and if the respondent was absent they had to return at least twice, at a different hour of the day. Only then was the case accepted as a non-response.

The total response for the 791 addressees amounted to 57.9%, (458 families or 1,075 persons). This response percentage is 6% lower than the result for the province of Antwerp, but 5% higher than the result for the Netherlands (CBS) in 1995.

Refusals amounted to 22.9%; not at home 6.6%; uninhabited and demolished houses 4.2%; all remaining categories together 8.4%.

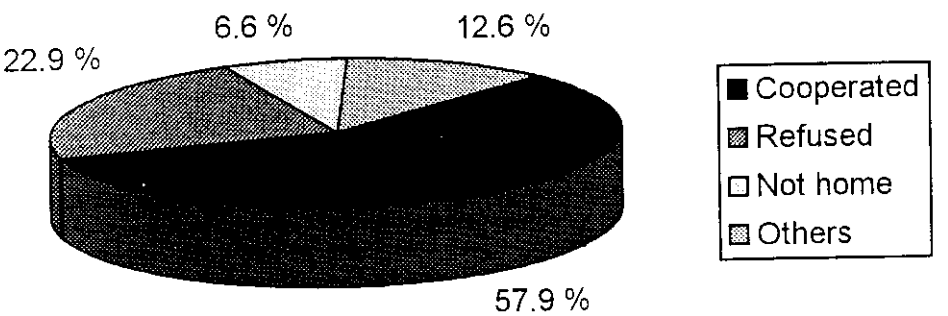

Fig. 1: Response

4.2. Representativeness

The response group, subdivided with respect to age and sex, corresponds closely to the demographic structure of the population of the town of Mechelen on 31 December 1995. In other words, we may assume that the sample survey constitutes a representative cross-section of the population of Mechelen with regard to age and sex.

5. Survey results

5.1. Socio-demographic characteristics

48.6% of the group of interviewees are male and 51.4% are female.

The averag e *age* is 39.5 years. The women are slightly older than the men, i.e. 40.1 years old as compared to 38.1 for the men.

49.6% are married (6% less than in the province of Antwerp). 36% of both the populations of Antwerp and Mechelen were never married. On the other hand, Mechelen scores higher on the number of divorcees (6.6% against 4%) and also counts a higher number of widow(er)s (7.2% against 5%).

The population of Mechelen has a slightly higher *education level* than the one of the province of Antwerp as a whole. In Mechelen 1 out of 5 people have enjoyed Primary Education (PE) against 26.6% in Antwerp. The first three (LSE) and the last three years (HSE) of Secondary Education (SE) represent respectively 18.4% and 34.3% in Mechelen, while in Antwerp these percentages are 22.7% and 28.9%. Higher Education and University levels (HE) both yield a higher score in Mechelen. In Mechelen 20.8% of the population has a degree from Higher Education and 6.5% have a University degree, while in Antwerp these percentages are 16.2% and 5.5% respectively.

50% of the respondents in Mechelen have a *net family income* that equals or exceeds BEF 70,000 a month. All other families have a lower income. More than 16% of the population have a monthly income that is lower than BEF 40,000. The distribution of the net family income has a similar curve for Mechelen and for the province of Antwerp.

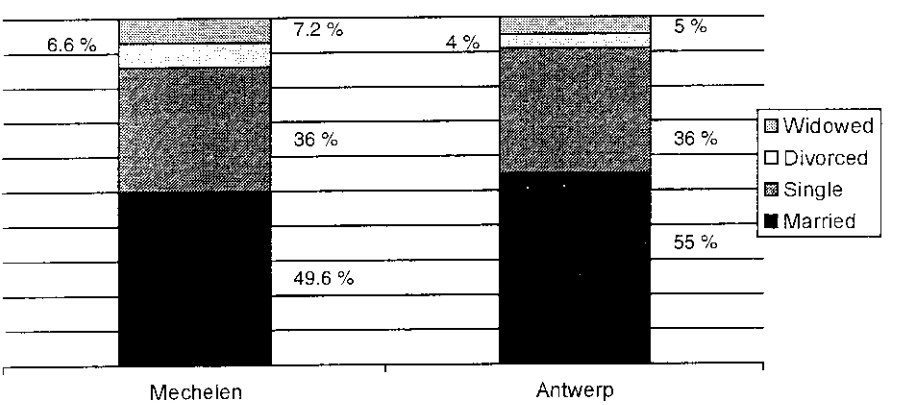

Fig. 2: Response with respect to civil state

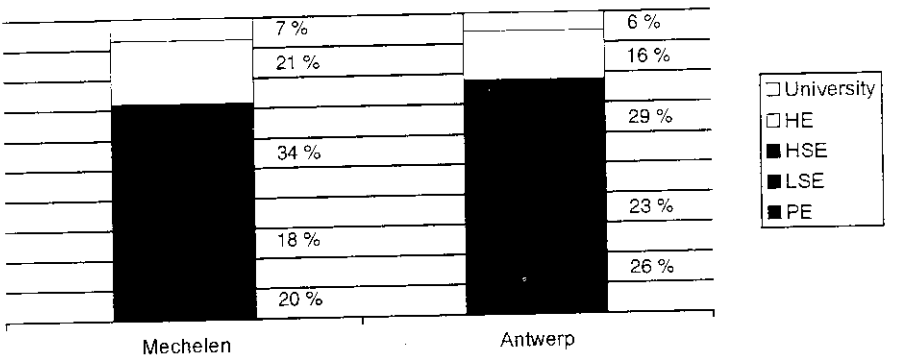

Fig. 3: Response with respect to education

5.2. General state of health

The general state of health is determined by means of different elements such as the subjective feeling of health, the number of chronic illnesses, the chronical disabilities, the psychosocial well-being (GHQ), the body mass index (Quételet index) and the use of dentures.

All family members (adults and children) were asked the question concerning their general state of health. Only the respondents over 15 were asked the question on psychosocial well-being (GHQ).

5.2.1. The subjective feeling of health

Approximately 79% of the inhabitants of Mechelen feel "very well" or "well"; 20%, however, does not feel quite well. In Antwerp this percentage is 17% of the population. Generally speaking, the inhabitant of Mechelen feels worse than the inhabitant of the province of Antwerp.

The feeling of health decreases with increasing age, but the higher the education level or the income, the better people feel.

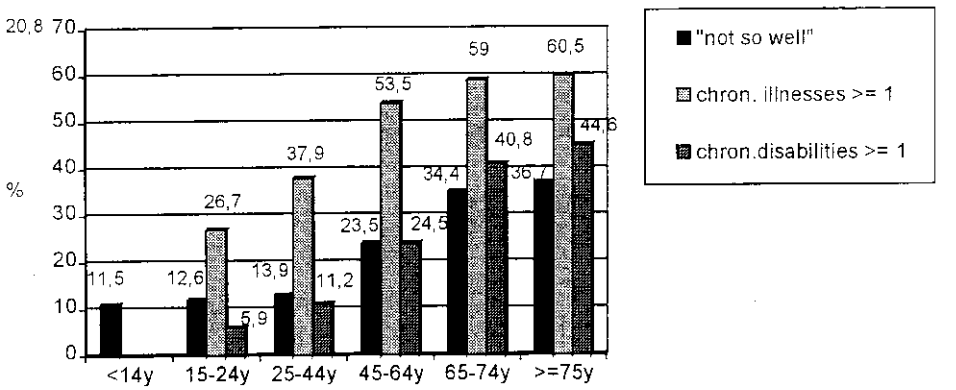

Fig. 4: Health State with respect to age

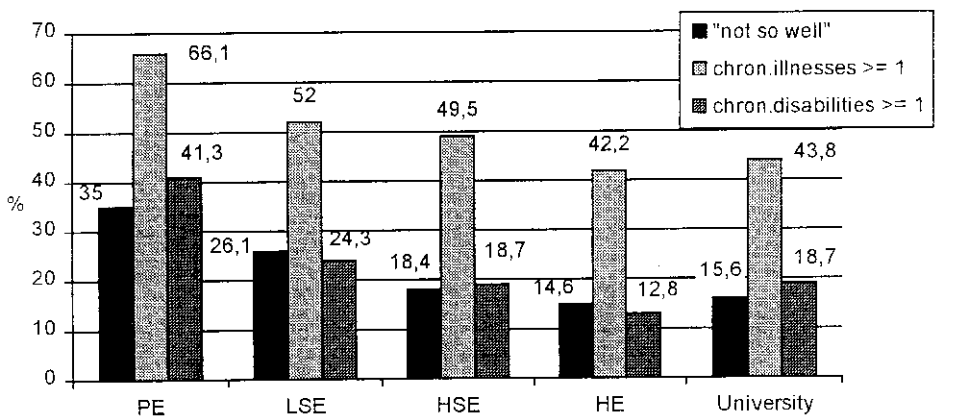

Fig. 5: Health State with respect to education

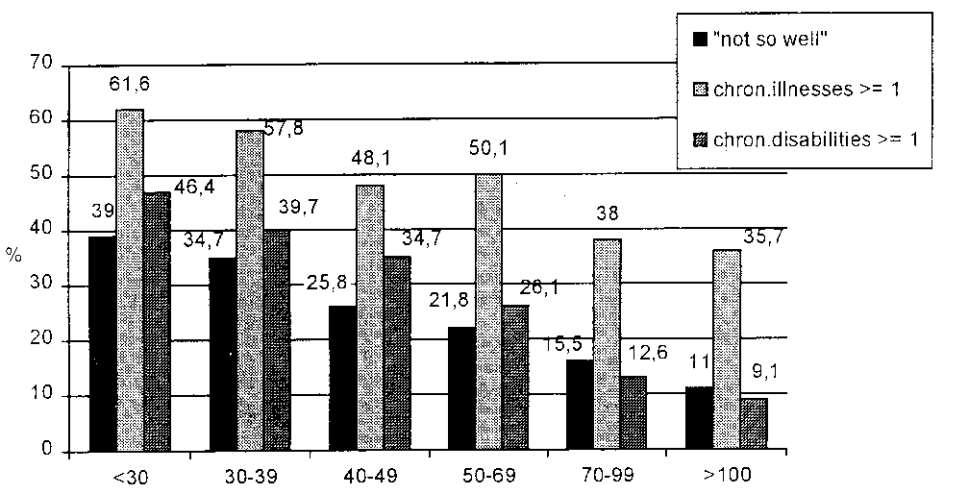

Fig. 6: Health State with respect to monthly income (x 1,000 BEF)

5.2.2. Chronic illnesses

56.1% of the interviewees from Mechelen have no chronic illnesses of any kind, while 43.9% have one or more. The number of people suffering from chronic illnesses increases with age, but decreases with a higher education level or a higher income.

The most frequently occurring chronic illnesses in the category of 15 years and older are hypertension (15.1%; i.e. +3.6% compared with Antwerp), joints wear (14.3%; i.e. +2.3%), back troubles (11.6%; i.e. +1.9%), and inflammations of the paranasal sinus (9.5%; i.e. +1.5%). Higher scores are also recorded for inflammations of the joints (+3.5%), thyroid gland (+2.3%) and vertigo (+2.3%).

The most striking higher scores compared with the Netherlands are hypertension (15.1%; i.e. +7.7% compared with the Netherlands), joints wear (14.3%; i.e. +7.4%) and inflammations of the joints (9.3%; i.e. +7.1%).

5.2.3. Chronic disabilities

Over 23% has to deal with one or more chronic disabilities; (very) bad sight, (very) bad hearing, bad physical condition (+ handicaps).

Compared with the province of Antwerp and the Netherlands, this is 2.2% and 7% higher respectively. Functional restrictions occur more frequently with increasing age. On the other hand, the higher the education and the income, the less frequently these problems occur.

5.2.4. Psychosocial well-being (GHQ)

In this survey, attention was also given to the degree of possible mental ill health (lack of self-confidence, stress situations, insomnia, depression, ...). For this part of the survey, the "General Health Questionnaire" (2) was used.

The maximum score for the GHQ – 12 is 12. For a score of 2 there is an increased chance that psychiatric support is advisable (3). From score 6, there is a high degree of certainty that support is required. The psychiatric interview in the second phase of the survey will be decisive in determining whether psychiatric counselling is required or not.

The results show that more than 31% of the inhabitants of Mechelen that were surveyed, have a score of 2 or more. Almost 12% are situated in the categories between 6 and 12.

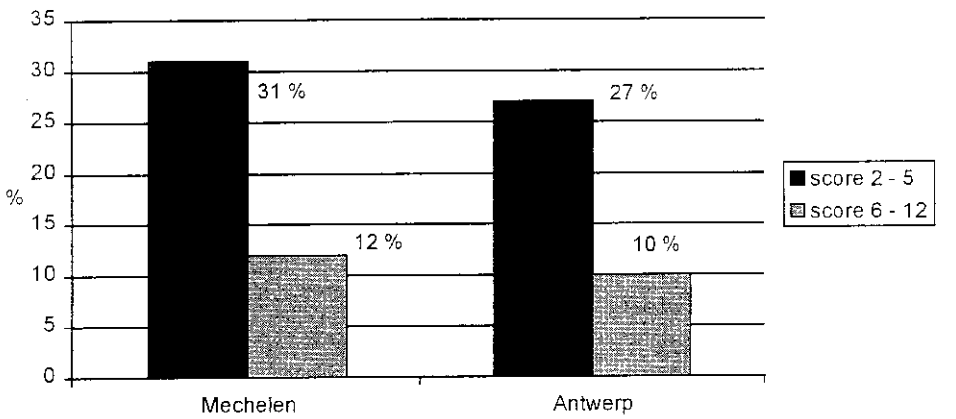

Fig. 7: GHQ – 12

5.2.5. Body mass index (Quételet index)

The Quételet index is a standard criterion for overweight. It is calculated by dividing the personal weight (in kgs.) by the square of height (in metres). If the final result of this calculation is inferior to 19.9, one suffers from underweight. A result situated between 20 and 26.9 means one has a normal weight. Over 27 one suffers from overweight. Score 30 is the limit for obesity (4).

23% of the interviewees from Mechelen belong to the category of people suffering from overweight. Slightly over 10% has a score of 30 or more, which means they suffer from obesity.

The Quételet index increases up to the age of 75 and then decreases. A higher education level generally corresponds with a lower Quételet index.

5.2.6. Dentures

55% have no dental prosthesis of any kind (i.e. no dentures or partial prostheses). This percentage corresponds with those of Antwerp and the Netherlands.

The percentage of interviewees without dental prostheses decreases with age; it increases with a higher education level or higher income.

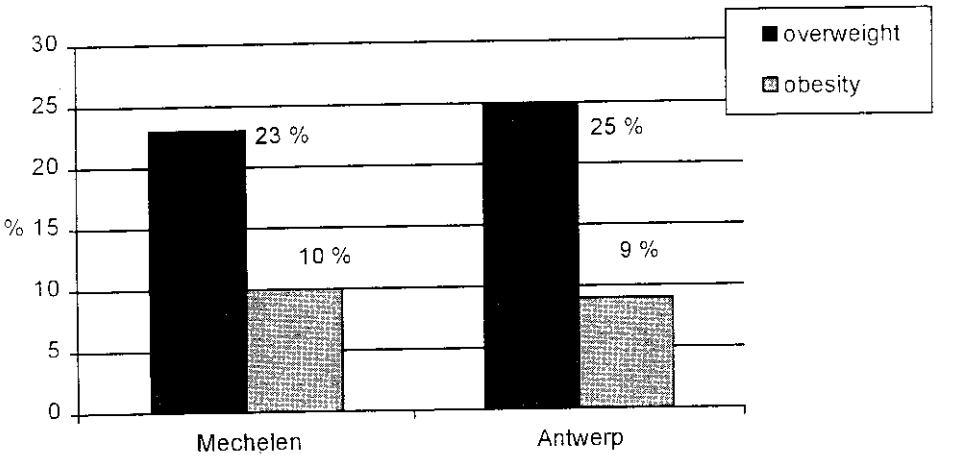

Fig. 8: Quételet index (BMI)

5.2.7. Medical consumption

All respondents were asked for information on their medical consumption (GP, specialist visits, prescribed or non-prescribed medication, hospitalisation and dentist visits) and the reasons for this consumption. The respondents over 15 also received questions on the use of contraceptive pills for women and on 10 other health care aids.

5.2.7.1. GP, specialist and dentist visits

The percentage of interviewees who had visited a GP, specialist or dentist in "the last 2 months", amounts to 44.8%; 16.4% and 15.9% respectively. These percentages for "the past year" run up to 72%; 35.3% and 46.9%.

The number of GP and dentist visits increases with age and decreases with a higher education or income level. For the specialist visits, this tendency is not so clearly univocal.

These 3 profession groups are less often consulted by the inhabitants of Mechelen than by the rest of the province of Antwerp. Compared with the Netherlands, the difference in the number of dentist visits is very striking (in the Netherlands there are 28% more a year). Doctors and specialists are also less frequently consulted than in the Netherlands.

5.2.7.2. Hospitalisation

Over 11% of the respondents in Mechelen were hospitalised for at least one night during the past year (childbirth not included). This result is the same as the result recorded for the province of Antwerp.

In the Netherlands the percentage is considerably lower: only about half this number of hospitalisations was registered (5). Each age group within the Mechelen survey has a higher score, but the most marked difference is found in the age groups under 24: only 4.3% of the Dutch respondents under 24 were in hospital in the past year (compared with 10.7% in Mechelen).

5.2.7.3. Use of prescribed or non-prescribed medication

42% of the interviewees had taken prescribed medication during "the last fortnight"; 22.7% had taken non-prescribed medication. "Contraceptive pills" and medication taken during hospitalisation are not included in these percentages.

The intake of *prescribed medication* is slightly higher in the age groups under 15, as compared with the 15 to 24-year-olds, but from that age on, intake increases with age. Besides, intake decreases with a higher education level or an increasing income.

In the case of *non-prescribed medication*, an increase is noted with a higher education level only.

Compared with Antwerp, more prescribed medication is used. The situation for the non-prescribed medication is similar. Compared with the Netherlands, the intake of prescribed medication is markedly higher, whereas the intake of non-prescribed medication is lower (5).

5.2.8. Lifestyle and preventive behaviour

For this first analysis of the data, only 2 of the many aspects of lifestyle and preventive behaviour were analysed, i.e., the smoking behaviour and the risk of skin cancer caused by excessive sunbathing and insufficient protection against the sun.

The following data on lifestyle only refer to the figures of respondents over 15 years, since the younger respondents were not asked these questions.

5.2.8.1. Smoking behaviour

29% (i.e. 236 persons) of the interviewees from Mechelen smoke *daily*. In the provinces of Antwerp and Flanders this amounts to respectively 24% and 27% (6). 30% of the Dutch respondents smoked daily in 1995 (7). 95 persons of the respondents from Mechelen (40.3% of the daily smokers) declared they smoked more than 20 cigarettes a day.

3.3% of the respondents smoked *now and then*. 377 persons (46.4%) of the respondents from Mechelen *never* smoked before. 21.3% of the interviewees were *former* smokers. The sample survey recorded 13.1% (107 persons) of former daily smokers. 8.2% (67 persons) were former occasional smokers.

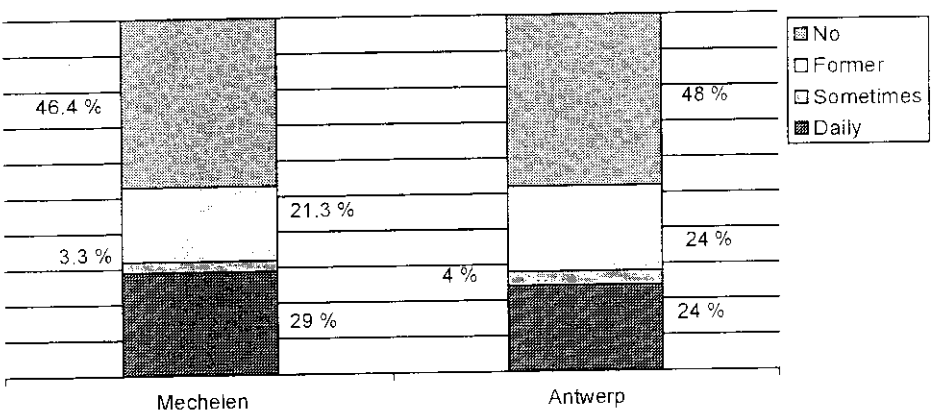

Fig. 9: smoking behaviour

5.2.8.2. Exposure to the sun as possible high-risk behaviour

Interviewees were asked about: sunbathing-behaviour, the use of UV-lamps, the use of skin protection creams and the skin type of the interviewee.

89% (i.e. 778 persons) answered the question about sunbathing behaviour. Approximately 50% of these respondents (379 persons) claimed they had not been sitting or lying in the sun in the past year. 26% (202 persons) confirmed that they had been in the sun for more than 1 hour per day in Belgium or in a country with a similar climate. 122 persons (15.7%) had been in the sun for more than 1 hour in a southern climate,

and 75 persons (9.6%) had been sunbathing in both a moderate and a southern climate.

Approximately 20% (157 persons out of 778) of the respondents had used UV-lamps or a sunbed for tanning in the past year. Women go to solariums 2.2 times more often than men.

Moreover, one fifth of the interviewees (21.3%) never used protection creams against sunburn. Men tend to apply them less frequently than women. 27.8% of the male respondents never use protection creams, compared to 18.8% of the women.

6. Conclusion

By adopting the principles of the «Beleidsplan Gezondheid provincie Antwerpen» (BELGA) (Health Policy Plan province of Antwerp), the town of Mechelen has clearly opted for the development of a health policy based on the actual state of public health of the entire population. The Health Survey Mechelen 1996 indeed offers a basic insight which is indispensable for drawing up an individual local health policy.

On the whole, the results are not alarming, even if a negative trend was recorded compared with the rest of the province of Antwerp. However, this trend can be largely explained by the urban character of the survey area, which, strictly speaking, does not mean it would be "more unhealthy" to live in Mechelen. Still, it is possible that, as a result of the many functions of a town, the environment and "community life" have a more negative influence on the individual here than elsewhere. Keeping this study in mind, the town of Mechelen would therefore be well-advised to display a greater alertness for the major psychosocial problems, the influence of the socio-economic stratification and the importance of an early implementation of well-defined prevention programmes (related to smoking, sunbathing).

The aspect "lifestyle" will be further explored in the future, using data about alcohol consumption, diet, physical exercise, personal responsibility, preventive tests for women,... Nevertheless, this first descriptive report certainly provides a number of clear indications.

The Health Surveys of the province of Antwerp and the town of Mechelen are the very first for Belgium. Indeed, no other investigations

into the state of health of the whole population have as yet been carried out in Belgium or Flanders. We can only compare the results of the two above studies and compare those with the results obtained in other countries, e.g. the Netherlands. When making a comparison between the province of Antwerp and the town of Mechelen, as well as when comparing them with other countries, the different contexts should be taken into account. It is difficult to compare a town with a less urban or non-urban area or with a country that has a different kind of health care system. When drawing conclusions, caution is warranted.

Résumé

Problème: En 1992, la ville de Malines décide de devenir une des deux "Health cities" (villes saines) en Belgique. Ceci implique l'élaboration systématique d'une politique de santé publique communale. Afin d'établir ce plan de santé publique, la ville de Malines confie à l'IPH la charge de faire une extension représentative de l'enquête provinciale pour Malines. Il est très intéressant de comparer les résultats de l'enquête provinciale avec ceux de l'enquête malinoise. Dans le futur, cette enquête sera régulièrement reprise afin de permettre une comparaison longitudinale. De cette façon, il est possible de relever les changements éventuels dans la santé publique et, en plus, il sera facile d'adapter cette politique en fonction de ces changements.

Méthode: Dans divers pays de l'Europe, une enquête sur la santé publique est conduite de façon continue depuis plusieurs années. L'enquête sur la santé publique de la province d'Anvers est basée sur l'enquête néerlandaise. Cette dernière a été coordonnée par le "Nederlandse Centraal Bureau voor de Statistiek" (CBS) (Bureau central néerlandais de la statistique). Le questionnaire et les techniques d'entretien utilisés lors du sondage sont les mêmes, tant pour l'enquête néerlandaise et anversoise que pour celle de la ville de Malines. L'échantillon aléatoire consistait en 791 familles, tirées d'un fichier de 31.822 adresses (familles) du registre de la population. Les entretiens ont eu lieu entre le 1 août 1995 et le 31 janvier 1996. On a utilisé 4 questionnaires (A, B, C, D): A était destiné aux données générales, B aux personnes âgées de 15 ans et plus, C aux personnes de moins de 15 ans et D également aux personnes de 15 ans et plus. Les trois premiers ont été répondus oralement et le dernier par écrit. Le questionnaire s'est principalement concentré sur la consommation médicale, le bien-être mental, le style de vie et le comportement préventif.

Résultats: La réponse totale des 791 familles était de 57,9%, ce qui correspond à 458 familles ou 1075 personnes. Généralement, on obtient des résultats typiquement urbains, c'est-à-dire, une tendance plus négative que dans toute la province d'Anvers. Le problème du bien-être mental (entre autres le test GHQ-12), par exemple, est impressionnant. Pour presque 12% des Malinois (contre 10% dans la province d'Anvers) il y a une très grande certitude que l'assistance psychologique est indispensable. Non seulement la santé publique mais aussi la consommation médicale et le style de vie et le comportement préventif ont été examinés lors de cette enquête. La conclusion générale de cette enquête démontre que l'influence de la stratification socio-économique (SSE) sur la santé publique est considérable, tant à Malines que dans la province d'Anvers.

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