

Socioeconomic inequalities in health in the Netherlands: impact of a five year research programme

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See editorials by Davey Smith and Judge and pp 1465, 1470, 1475, 1481

The attention paid to the socioeconomic inequalities in health in the Netherlands has increased greatly in recent years. A national research programme was started in 1989, and among other things, this has increased the yearly number of publications on socioeconomic inequalities in health by about 25%. The programme has increased awareness of inequalities among researchers and policy makers as well as improved the information available on health inequalities and the reasons for them. Cross party agreement on the need to reduce these inequalities has led to a consensus based approach which contrasts with the heavily politicised debate in countries such as the United Kingdom.

The publication of the Black report in 1980¹ and the inclusion of a reduction of health inequalities among the World Health Organisation's Health for All policy targets in 1985² has increased interest in socioeconomic inequalities in health in many countries. In the Netherlands, socioeconomic inequalities in health were politically a non-issue until the second half of the 1980s. In 1980 the Dutch Society for Social Medicine celebrated its 50th anniversary with a conference on socioeconomic inequalities in health,³ and the results of a thorough study of inequalities between neighbourhoods in Amsterdam were published,⁴ but neither of these initiatives was given political follow up. The position changed radically, however, after the Dutch government adopted the Health For All policy targets, and in 1986 the ministry of welfare, public health, and cultural affairs included a paragraph on inequalities in health in an important policy document.⁵

After that, initiatives were taken from inside the ministry to put equity in health on the political agenda.⁶ In 1987 a conference was organised under the aegis of the prestigious Scientific Council for Government Policy, and widespread press coverage was arranged for the publication of its proceedings. The report contained a proposal for a national research programme, which was launched in 1989. An independent committee was formed to develop and implement the research programme, and to report the results to the minister of welfare, public health, and cultural affairs after five years. The programme had an annual budget of 1 million fl (about £370 000), which could be spent at the discretion of the committee. The commit-

tee consisted of an independent chairman, established researchers, a representative for the ministry, and several people familiar with (but not representing) other policy areas. The main objectives of the programme were to generate more knowledge about the size and nature of socioeconomic inequalities in health and the reasons for them. The results have been published recently.^{7,8}

Effects on the scientific community

The programme was designed so that its effect on the scientific community would last longer than five years. As many research groups as possible were therefore involved in the programme. Forty studies were commissioned, most of which were small scale secondary analyses of data collected in epidemiological studies. This was done to increase awareness of socioeconomic inequalities in health among researchers working in other areas.

At the same time, investments were made to improve conditions for future research. For example, a standardised procedure for measuring socioeconomic status on the basis of education, occupational class, or income was developed to improve the comparability of research findings.⁹ A computerised method for eliciting this information from patients admitted to a hospital was also developed, and tests showed that this method will allow data on socioeconomic status to be incorporated into all kinds of routine data collections.¹⁰

Although it is too early to know whether the research programme has had a lasting effect on the scientific community, it has had a measurable effect in the short term. A documentation centre set up to monitor the scientific literature on socioeconomic inequalities in health from the Netherlands and abroad showed that the number of Dutch publications increased by about 25% during the programme (table I). The centre has a virtually complete coverage of articles published in Dutch and English language peer reviewed journals since 1985. In the United Kingdom the yearly number of publications fell slightly during the same period, suggesting that the increase observed in the Netherlands is not simply the effect of an international trend. Some of the larger independent research funds in the Netherlands, such as the Sick Fund Council (Ziekenfondsraad)¹¹ and the Netherlands Heart Foundation (Nederlandse Hartstichting),¹² have sponsored studies on health inequalities, and the Prevention Fund (Praeventiefonds) has selected socioeconomic inequalities in health as one of its top research priorities for 1994-7.¹³

Increased knowledge of inequalities

When the research programme started the Netherlands had few data describing the size and nature of socioeconomic inequalities in health. A review for the conference of the Scientific Council for Government

TABLE I—Number of articles published in scientific journals on socioeconomic inequalities in health in the Netherlands and United Kingdom

Year of publication	Netherlands		United Kingdom	
	Total No of articles	No/year	Total No of articles	No/year
1985-8	60	15.0	179	44.8
1989-93	94	18.8	197	39.4

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Policy in 1987 had to fill in many gaps in knowledge by referring to studies from neighbouring countries.¹⁴ Reviews in 1992 and this year were able to offer a much more complete picture of the Dutch situation.^{8,15} This is because of more documenting of socioeconomic inequalities in health by the Netherlands Central Bureau of Statistics and the large number of secondary analyses of epidemiological data.

In contrast with many other European countries the Netherlands does not have mortality statistics by socioeconomic status, but studies relating mortality of city neighbourhoods or regions to socioeconomic characteristics have shown that mortality is higher in lower socioeconomic groups.^{4,16} These findings are confirmed by the results of several epidemiological studies of specific cohorts whose mortality could be analysed according to socioeconomic indicators at the start of follow up.¹⁷⁻²⁰

The most important source of continuous data on socioeconomic inequalities in health is the Netherlands health interview survey. This survey is conducted by the Central Bureau of Statistics and has been used extensively during the research programme.^{21,22} In almost all its publications the bureau now presents breakdowns by level of education and income, which has greatly increased the public visibility of socioeconomic inequalities in health. All health indicators measured in this survey (perceived general health; subjective health complaints; reported chronic conditions; reported physical disabilities, etc) show large variations with level of education and income.^{21,22} Of course, differences in reporting by socioeconomic status could bias these results, but the available evidence on the accuracy of reporting of chronic conditions in Dutch health surveys suggests that if such bias exists it will lead to underestimation of socioeconomic inequalities.^{23,24}

The box summarises the descriptive evidence on socioeconomic inequalities in health in the Netherlands. Data were collected from the health interview survey, cancer registries (incidence²⁵ and survival²⁶ of cancer); epidemiological studies of cardiovascular disease,²⁷ chronic obstructive lung disease,²⁴ tooth decay,²⁸ and psychiatric disorders²⁹; and registries of sickness absence and long term work disability.³⁰ Boshuizen *et al* combined data on socioeconomic variations in mortality and self reported morbidity to estimate variations in healthy life expectancy and found that Dutch men with higher education have 12 years longer healthy life expectancy than men with lower education.³¹ The substantial socioeconomic inequalities in health in the Netherlands can also be shown by population attributable risks (table II), which show that if people with lower education had the morbidity and mortality of those with university education the average morbidity and mortality in the Dutch population would be reduced by 25-50%.

TABLE II—Population attributable risk of variation in educational level for selected health problems in the Netherlands, 1990

Health indicators	Population attributable risk (%) [*]
Less than good perceived general health†	50
Subjective health complaints†	26
Self reported chronic conditions†	22
Self reported physical disabilities†	47
Mortality‡	24

^{*}The population attributable risk is that part of the total number of health problems in the population which could be avoided if all members of the population had the rate of health problems of a reference category. In this case, the reference category is formed by those with a high level of education.

†Calculations based on data from the Netherlands health interview survey (reference category, university education).²²

‡Calculations based on data from an epidemiological follow up study among men only (reference category, higher secondary and postsecondary education).¹⁹

Health indicators that are more common in lower socioeconomic groups⁸

Self reported health problems:	Health problems identified through registries or medical examinations:
Less than "good" general health	Chronic obstructive lung disease
Subjective health complaints	Myocardial infarction
Chronic conditions:	Lung cancer
Chronic obstructive lung disease	Dental caries and periodontal disorders
Heart disorder	Psychiatric illnesses
Stomach ulcer	Short term work disability
Diabetes mellitus	Long term work disability
Low back pain	Short survival from cancer
Arthritis and arthrosis	Premature death
Epilepsy	
Physical disabilities	
Psychological and psychosocial problems	
Having no teeth	

TABLE III—Factors that could contribute to the explanation of socioeconomic inequalities in health in the Netherlands⁸

Factor [*]	Association with socioeconomic status†	Contribution to explanation in simultaneous analysis of socioeconomic status, factor, and health problem‡
Life style factors and associated biological characteristics:		
Cigarette smoking	Yes	Yes
Dietary habits	Yes	Not investigated
Alcohol consumption	Results not clear	Results not clear
Physical exercise	Results not clear	Results not clear
Obesity	Yes	Yes
Serum cholesterol	Yes	Yes
High blood pressure	Yes	Yes
Oral hygiene	Yes	Yes
Accident prevention	Yes	Not investigated
Working and living conditions:		
Working conditions	Yes	Yes
Housing conditions	Yes	Results not clear
Psychosocial stress and related factors:		
Stressful events and circumstances	Yes	Results not clear
Social support	Yes	Results not clear

^{*}Health care factors are excluded as they do not show consistent associations with socioeconomic status in the Netherlands.

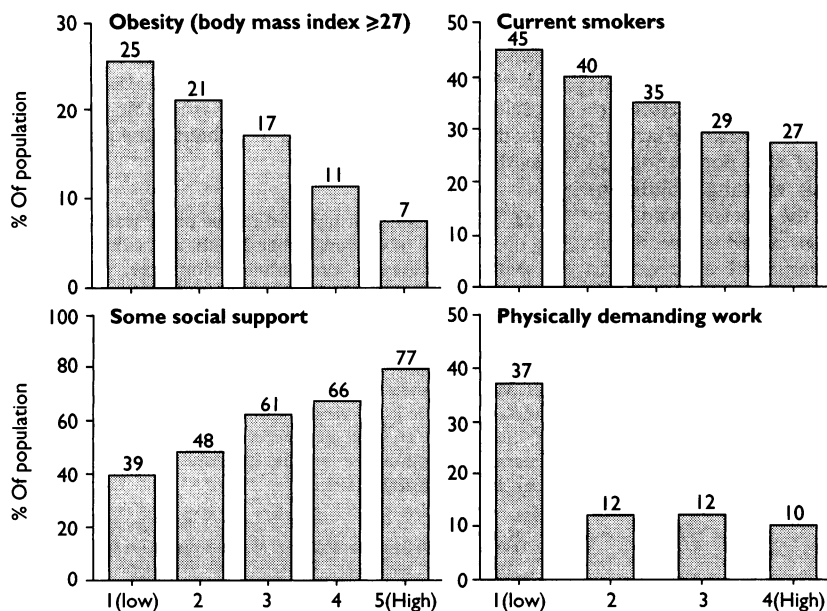
†Yes=Associations (for example, more smokers in the lower socioeconomic groups) that could explain part of the socioeconomic inequalities in health.

‡Yes=Factor, when added to a regression model relating health problems to socioeconomic status, reduces the estimated effect of socioeconomic status on frequency of health problem by at least 5%.

Nevertheless inequalities in health are still smaller in the Netherlands than in most other industrialised countries.³²⁻³⁴ For example, among young adult men the difference in mortality between those with the lowest and those with the highest educational level is about 70% in the Netherlands, 100% in England and Wales, 200% in France, and 260% in the United States.³⁴

Increased knowledge of causes of inequality

Although the causes of socioeconomic inequalities in health are partly known in other countries, this information is not necessarily applicable to the Dutch situation because, for example, the socioeconomic distribution of risk factors for disease might be different in the Netherlands from that in other countries. A substantial part of the budget of the research programme in health was therefore devoted to explaining socioeconomic inequalities in the Netherlands. Table III summarises the available evidence. Considerable progress has been made, especially with regard to



Variations in the health determinants obesity, smoking, and social support with level of education and in heavy work with occupational class

the effect of life style factors, working and housing conditions, and psychosocial factors. Many of the well known determinants of disease occur more often in the lower socioeconomic groups (figure).

Use of preventive and curative health services is not consistently associated with socioeconomic status in the Netherlands. After variations in health are controlled for some services are used more often by people with higher educational levels (for example, influenza vaccinations,³⁵ outpatient specialist and physiotherapy services, and ambulatory mental health services²²) but others are used more often by people with lower educational levels (for example, general practitioner services²²) or show no differences at all.

The main task, however, is not to document inequalities in determinants of health problems but to estimate the contribution of each of these determinants to the health inequalities. Multivariate analyses of the simultaneous relation between socioeconomic status, specific health determinants, and frequency of health problems, have until now been limited to a few examples³⁶⁻³⁹ and suffer from various limitations. The results are summarised in the second column of table III. One of the most interesting studies attempted to explain socioeconomic variation in the prevalence of heart disease from variation in the prevalence of classic risk factors such as smoking, hypertension, and high serum cholesterol concentration. About one third of the differences in prevalence of heart disease could be explained by these risk factors.³⁶ This finding is similar to the main results of the British Whitehall study, which suggested that other factors also need to be considered.⁴⁰

More work needs to be done before we have a full understanding of the causes of socioeconomic inequalities in health. For this reason a large scale longitudinal study has been started, sponsored by the research programme.⁴¹

Effects on health policy

Although it is too early to have a good picture of the changes in health policy induced by the results of the research programme, there are some encouraging signs that socioeconomic inequalities in health are being included in health policy. The Scientific Council for Government Policy held a second conference in 1991 entitled "Socioeconomic health inequalities and policy." Representatives from most political parties, from relevant ministries such as social affairs and housing, from health care organisations, and the

medical professions discussed potential interventions to reduce socioeconomic inequalities in health. There was a broad consensus that these inequalities are unfair, and that all those involved should try to contribute to redressing the inequalities.⁴²

Since this conference, several initiatives have been taken, at national, regional, and local levels. At the national level, an intersectoral working group was formed to stimulate cooperation between the various ministries. At the regional and local levels, many public health departments have intensified their efforts at improving health related living circumstances in deprived areas. The international Healthy Cities movement and a government policy aiming at social renewal have both played a part, while the good data on socioeconomic inequalities in health have helped to give these initiatives a clear focus. Many towns are experimenting with intervention programmes in deprived areas, encompassing such diverse elements as increased safety from violence, urban renewal, health education campaigns, and help with finding jobs.

A new five year research programme is starting this year to develop and evaluate community interventions to reduce health problems in lower socioeconomic groups. This programme will be based on the recommendations issued by the committee overseeing the 1989-93 research programme. In its final report to the deputy minister of welfare, public health, and cultural affairs the committee gave several recommendations on the basis of an explanation of socioeconomic inequalities in health in terms of causation (through the differential distribution across socioeconomic groups of specific health determinants such as smoking, working conditions, and psychosocial stress) and in terms of selection (through an effect of health on social mobility).⁷ Almost no data on selection are available for the Netherlands, and international data suggest that it is less important than causation,⁴³ but it was thought important to identify all possible routes of intervention. Four types of intervention were identified (see below), and these will form the basis for the research and development efforts of the 1994-8 programme.

Improving the educational, occupational, or income level of those at the bottom of the social hierarchy. This is the most fundamental approach to diminishing the excess morbidity and mortality among those with lower socioeconomic status and perhaps, therefore, the potentially most effective approach. But it can be implemented only in the longer term, and the current political climate presents serious barriers especially for redressing income inequalities. The recommendations therefore were limited to raising the awareness among policy makers of the implications that their decisions could have for the health of the population. One specific recommendation was to assess the possible health effects, especially among the disadvantaged, of all important policy changes in education, employment, and income (including social security).

Minimising the effects of ill health on social mobility. Although this may be a less important mechanism for the overall explanation of socioeconomic inequalities in health, it offers opportunities for intervention that can be built into existing services and policies. Sick children who perform less well in school and their teachers could receive extra guidance and help from school health services. Chronically ill adults who have difficulty in finding or keeping a job could receive extra help from employers and receive decent income supplements when they are unemployed.

Reducing exposure to determinants of health problems in the lower socioeconomic groups. This is a feasible and potentially powerful way of redressing socioeconomic inequalities in health. Unhealthy lifestyles and unhealthy working conditions are the top priorities for action. Unhealthy lifestyles cannot be changed simply

by giving more conventional health education. Methods of health education need to be developed that take into account the specific characteristics of the target groups and should be combined with efforts to change the incentive structure for these behaviours among disadvantaged groups of the population. In campaigns aimed at improving working conditions extra attention could be paid to the less well paid jobs.

Offering extra health care to lower socioeconomic groups. This is the least fundamental approach to reducing socioeconomic inequalities in health but it may be effective, especially if the other approaches have not been completely successful (as is likely to be the case) and if the health services offered have the potential of really alleviating the health problems. One example may be general practitioner care in deprived areas. Efforts at securing full access to understanding general practitioners who are equipped with extra facilities, such as open referral channels to social services, may be helpful.

Discussion

Although the socioeconomic inequalities in health in the Netherlands are small compared with those in many other countries, the actual inequalities are still great. Socioeconomic inequalities in health should be given a high priority in public health policy, and one of the merits of the research programme is that it forged a broad consensus on the need to develop specific policy measures.

This broad consensus may be surprising to those who live in countries such as the United Kingdom, where the debate on socioeconomic inequalities in health has become heavily politicised. The frosty reception of the Black report in the United Kingdom by the Conservative secretary of state to whom it was issued, contrasts with the reception of the results of the Dutch research programme. The committee overseeing the Dutch research programme was chaired by Professor L Ginjaar, chairman of the Health Council and former chairman of the Dutch Liberal party (the equivalent of the British Conservatives). He offered the results of the programme to the social democrat deputy minister, Hans Simons, who announced that he completely agreed with the programme committee's recommendations and that he would install a new programme committee chaired by Professor W Albeda, a former minister of social affairs belonging to the Christian Democrat party.

This lack of polarisation is difficult to explain, and is probably partly due to the Dutch political system, which can function only when coalitions are formed, and to the relative lack of class consciousness in the Netherlands. On the other hand, it is certainly also partly due to the deliberate efforts of those involved to avoid party political one sidedness.⁶ This tendency may seem to have resulted in an emphasis on the politically neutral lifestyle factors rather than the more politically sensitive material aspects of low socioeconomic status. In fact this difference in emphasis was due to a concern with finding the specific causal pathways leading from low socioeconomic status to ill health. Pathways including lifestyle factors are much easier to document than other causes, both because of their greater ease of measurement and because of their well established causal relation with ill health. The results of the research programme should not be interpreted as evidence for a greater importance of cultural or behavioural factors than structural or material factors¹; differences in lifestyle may have their roots, at least partially, in differences in living conditions.

Egalitarian values are widespread in the Netherlands, especially with regard to health and disease, and

those doing research and setting policy on socioeconomic inequalities in health generally believe that this basis for further action should be guarded preciously. The future will tell whether this consensus based approach is effective in reducing inequalities in health.

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The World Health Organisation

WHO in retreat: is it losing its influence?

Fiona Godlee



This is the second in a series examining the role of the World Health Organisation, its current problems, and its future prospects

WHO says it has three main functions: to set normative standards; to provide technical advice and assistance on medical matters; and to advocate changes in health policy. During its 46 year history the first two functions have been a constant and uncontroversial backbone through which WHO has earned its reputation for scientific excellence. The third function, advocacy, came to the fore with the launch of Health for All in 1977, after which WHO took a key role in influencing international health policy. WHO's friends and critics alike now say that the organisation is losing its influence and retreating into its technical and biomedical shell. This article maps the changes in WHO's approach over the past 46 years and considers whether fears about its loss of influence are justified.

WHO's first 25 years were, as Dr Gill Walt of the London School of Hygiene and Tropical Medicine describes, characterised by caution and stability.¹ Between 1948 and 1973 the organisation had only two directors general, and its technical role as a specialist agency for health spared it the political conflicts that were wracking the rest of the United Nations. Dominated by doctors, WHO took an approach to health that was largely disease oriented, and it studiously avoided political or cultural controversy. In 1952 it decided not to undertake a population programme because of the religious and political implications. Fifteen years later, when concern over population growth was heightening, WHO softened this decision, saying that it would give technical advice on family planning but only on request from member states.

From technical consensus to political controversy

WHO's policy of sticking to uncontroversial medical matters was reaffirmed in the late 1960s. By this time the organisation's membership had nearly doubled as the newly independent states joined the United Nations. This rapid growth in membership broadened the organisation's agenda, says Walt, bringing more emphasis on the problems of the developing world and making decisions more political and less predictable.

It also introduced new potential for confrontation. Because member states have equal voting rights on WHO's governing body, the World Health Assembly, regardless of their financial contribution, the growth in membership from the developing world wrested control from the industrialised countries. By the late 1960s, Latin American, Asian, and African states could, if they acted together, achieve more than the two thirds majority required for decisions at the assembly.² By maintaining a broad consensus over technical medical matters, WHO diffused the potential conflict.

Further justification of its policy came, says Walt, when WHO burnt its fingers after a tentative sally into the politics of health care. A small group of WHO consultants published a report on "medical aspects of social security," which came down against health insurance. The United States, WHO's major donor, protested strongly against the organisation's involvement in what it saw as a political rather than a medical matter.

WHO's avoidance of health politics was made easier by its confidence in the disease oriented approach. Developments in medical technology—drugs, pesticides, and vaccines—brought a sense of optimism and purpose and strengthened the technical consensus within the organisation.

By the mid-1970s, however, it became clear that things weren't so easy. WHO's malaria eradication programme was running into difficulty because of DDT resistance and the lack of health infrastructure in developing countries. Setting up case detection and treatment programmes was proving almost impossible. WHO realised that technology alone was not enough; it would need to help countries build up basic health care systems. Under its new director general, Dr Halfden Mahler, WHO began a major shift away from its strict disease orientation to a broader focus on the socio-economic causes of illness.

In 1977, buoyed up by the successful eradication of smallpox, the organisation set itself an extraordinarily ambitious target linked to a new, functional definition of health. It announced that, by the turn of the century, all citizens of the world should have achieved "a level of health that will permit them to lead a socially

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