Because herbicide use was common to the workers in this cohort, we speculated on the biological plausibility of phenoxy acid herbicide exposure and the increased risk of suicide. This was prompted by previous research suggesting that exposure to phenoxy acid herbicides can increase suicide. We would be interested in knowing whether phenoxy acid herbicide exposures are relevant to the group studied by Notokola et al and whether further analyses could be carried out taking these exposures into account. We are in the process of extending the follow up of our cohort and shortly hope to report whether the excess has persisted.

1 LM Green Health Services Department, Ontario Hydro, Toronto, Canada


4 Helson K, Keemp B, Jensen-Holm J. Fatal poisoning in man by 2, 4-dichlorophenoxyacetic acid (2, 4-D); determination of the agent in forensic materials. *Acta Pharmacol Toxicol* 1965; 22: 224-34.


Reply

In her letter Dr Green is interested in knowing whether phenoxy acid herbicide exposures are relevant to the increased risk of suicide of forestry workers in Finland. Firstly, in this follow up, which is based on census records in Finland, there is no direct information available of phenoxy acid herbicide exposure and this kind of information can only be collected by personal interview. In Finland we have undertaken a suicide mortality study in which case histories of all suicide deaths for the year 1987 were analysed. This material is to be used in the future too in the forestry workers project. Secondly, exposure of Finnish forestry workers to chlorinated phenoxy acid herbicides has been investigated in some studies. Exposure to chlorinated phenoxy acid herbicides was evaluated by hygiene measurements and biological monitoring. The results showed that exposure did not affect the health status of workers. The total amount of pesticides used in a year (about 1000 tn) is relatively small compared with that in many other countries. From this point of view the role of phenoxy acid herbicide exposure as a factor in the increased risk of suicide might be small in Finland. In addition, the rate ratio of suicidal death in our study declined considerably after the adjustment for socioeconomic factors.

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ASSessing the need for health status measures

SIR—We should like to correct several errors of fact and interpretation in the paper by Donovan, Frankel, and Eyles on “Assessing the need for health status measures”.

Health needs assessment is not best served by the use of measures such as the Nottingham Health Profile (NHP) or the SF36 which were clearly not designed for such a purpose. Indeed, the whole concept of health needs assessment needs to be elucidated. Clearly, measuring health status as such will not necessarily lead to conclusions about health needs. A major issue which was not addressed was that of who decides what is needed, the lay people or the professional?

Particular attention was given to the NHP, a measure of perceived distress (not health) in physical, emotional, and social domains. This measure was carefully developed over a number of years with particular emphasis placed on allowing lay people to dictate its content and scoring system. Its items are in the form of statements derived from several hundred interviews with patients and non-patients. Donovan et al suggest that no information is provided concerning the criteria by which items were chosen for the measure. This is not correct. Full details of these criteria are given in our book *Measuring Health Status* and in several other publications. To describe the statements as complex is misleading. One of the reasons for the wide use of the SF36 is that items are drawn directly from lay language and are thus easily understood by respondents. Equal attention was paid to the response system and the “yes/no” format was found by respondents to be the easiest way to understand and answer.

There is a wealth of published material about the development of the NHP, its testing for reliability and validity, and the many studies in which it has been used, which Donovan et al would have found helpful to consult. To quote individual negative comments from some respondents does not constitute scientific proof of lack of validity, particularly in the light of a large number of published papers establishing the usefulness of the measure with several thousand respondents from a variety of patient groups. Moreover, the ability of the NHP to allow for individual adaptation to chronic ill health is an asset not a liability. The whole philosophy behind the measure was that it should reflect lay perceptions not professional assumptions about how people feel. While this may not be helpful to health service planners, it is highly relevant to how patients perceive and respond to their health problems.

The developers of the measure have always made it clear that the measure has limitations. For example, it covers relatively severe distress, making it most appropriate for elderly respondents and those with chronic illness. To suggest that zero scores imply perfect health indicates the authors’ lack of familiarity with the published reports.

We would agree that qualitative research, when properly conducted, has advantages over quantitative methods—particularly as it allows a clearer focus on specific issues. However, there are also disadvantages. Qualitative research allows a greater potential for researcher bias and the procedure is time-consuming, expensive, and less generalisable than the use of standardised measures.

A comment should be made about references in the paper to the SF36 as the RAND 36—Item Health Survey 1-0, RAND Health Services Program as it should now be referred to). This measure cannot be said to be “replacing” the NHP, as the two instruments assess different aspects of health. The items in the RAND measure were derived from “experts” not lay people and thus collect information of interest to professional groups. Consequently, responses cannot be considered to be representative of perceived health. It is important to be clear about the difference between a self administered questionnaire and one which addresses the concerns of the patient. No convincing evidence of the reliability or validity of the SF36 has yet been published, even in the USA where it was developed. Careful reading of the Brazier paper shows that the UK adaptation is neither valid nor reliable. Indeed, it has recently been brought to our attention that use of the measure has had to be abandoned in a study of stroke patients, as the respondents (who were able to complete other measures) were unable to understand the questions in the RAND measure, even with the help of an interviewer.

Nor can the NHP be said to have “replaced” the Sickness Impact Profile (SIP) since these measures also address separate issues and the SIP was rarely used in Britain, partly because of its length. It is not very helpful to potential users of questionnaires to characterise instruments as somehow being in competition. This is a stance which totally disregards the fact that measures are developed for different purposes and assess different aspects of health and disability. There are a number of questionnaires available in Britain which are useful for gathering information pertinent to health policy. The most important issue is not which is the “most fashionable” but which is the most appropriate for the task in hand.

In summary, well developed generic measures of perceived health, distress, discomfort, or disability can be valuable tools in the proper context but cannot be considered suitable for all purposes in which the views of lay people are to be sought. There is a case for the development of more specific measures targeted at the assessment of health needs once a clear operational definition of this term has been produced. Rather than criticising using measures for not existing, using what they were never designed to do, time might be better spent in the conceptual and methodological work needed to address the topic of health needs assessment.

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becoming the first choice instrument to measure generic health status, particularly in
the study of treatment outcomes. Many of the
issues raised in our paper about the face
validity of the NHP have also not been
addressed for the HSQ/SF-36, particularly
the ways in which respondents understand the
items and complete the complex format.

Qualitative research, watching people com-
pleting their instruments and tape-recording their responses, helps to elucidate how people
make sense of such instruments. As far as we
are aware, no such work has been published
previously on this issue, although many
researchers using the NHP have voiced con-
cerns about its face validity. Qualitative work
shows that the “yes/no” format, although
tuitively easy, is not found to be so when an
individual actually has to respond to state-
ments which again seem to be in simple
language, but which contain quite complex
concepts. Quotations in the paper indicate the
sorts of problems faced by respondents.

The developers of the NHP naturally desire
the widest possible use for their instrument. It
is clear, however, that health measures tend to
enjoy periods of popularity when they are
generally acknowledged to be the measure of
choice. In the 1980s, the NHP fulfilled this
role, and was widely used. In the 1990s,
measures arising from the Medical Outcomes
Study—the SF-36 and Health Status
Questionnaire—have become widely used.
Preliminary results suggest that the SF-36
may be “more” valid and reliable than the
NHP,” and because of this, the relative
newness of these measures, and researchers’
perceptions of their potential, the SF-36/HSQ
have become the “fashionable” instruments
of the present. It seems more than likely, given
past history, that another method of assessing

generic health status or perceived health will
supplant these measures in the next decade.

We would agree that more time is required
before a tool is developed to measure health
needs. We would also suggest that it is im-
portant to subject measures which purport
to represent people’s or patients’ views concern-
ing health and illness to the most detailed
scrutiny. We have presented a qualitative
analysis of the NHP which suggests that lay
people do not find it as easy to complete as its
simple format suggests that they should. It is
likely that other measures, particularly those
with more complex formats such as the HSQ/
SF-36, also exhibit these difficulties. Health
and illness are complex matters which cannot
easily be confined within simple statements
and binary answers. Instruments such as the
NHP (and HSQ/SF-36) clearly respond to
something, but can any of us really be sure
what it is that they do measure, and what
relationship this has with people’s perceptions
of health and illness?

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