Measuring Quality of Life among Older Adults.
Validation of the Norwegian WHOQOL-Old

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2009
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Series of dissertations submitted to the Faculty of Medicine, University of Oslo No. 952


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Cover: Inger Sandved Anfinsen.
Printed in Norway: AiT e-dit AS.

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ABSTRACT

Quality of life (QoL) assessment is an important aspect of nursing care. With increased older adult longevity, nurses are attending to lifestyles issues that accompany the QoL of both healthy and sick adults. Though the concept of QoL has been used for a long period of time, a consensus regarding a universal definition of QoL and a conceptual model is absent. There is also a lack of QoL measurements developed for and within the population of older adults. This has resulted in a new recently developed module for the assessment of QoL among older adults, which was part of an international study entitled “The Measurement of the Quality of Life in Older Adults and its Relationship to Healthy Ageing (WHOQoL-Old)”. The Norwegian WHOQoL-Old module (six facets, each with four items) has been developed as a part of this large cross-cultural project according to three phases; focus groups, a pilot study and a field study. A concrete definition of QoL has guided the WHOQoL-Group’s operationalization of the WHOQoL measurements; thus, the work has not been grounded in a theoretical or conceptual model. However, Wilson and Cleary have developed a conceptual model in which different types of variables, including QoL, interrelate. In this thesis, the definition and conceptual model support the validation of the WHOQoL-Old module.

The specific aims of this thesis were as follows:

1. To explore whether there exists a consensus on the conceptualization and measurement of QoL among older adults (Paper I).
2. To explore content, convergence, known group and concurrent validity, as well as the psychometric properties of the final version of the WHOQoL-Old module (Paper II).
3. To investigate the fitness of the theoretical model in investigating the construct, known group and concurrent validity of the WHOQoL-Old module among healthy older adults (Paper III).
4. To investigate the fitness of the theoretical model in investigating the construct, known group and concurrent validity of the WHOQoL-Old module among sick older adults (Paper IV).
Studies were performed using a literature review (N = 47; Paper I) and a cross-sectional study (healthy N = 401, Sick N = 89; Paper II, III, IV). The questionnaires covered sociodemographic and self-reported health information, QoL, health and functional status scale, as well as depression.

Results showed that a great majority of the reviewed studies lacked a conceptual model, one third of them lacked any formal definition of QoL, 34 different measurements were used and minimal empirical evidence was given for other psychometric properties (Paper I). In critically examining the basic structure of the measurement, the conceptual structure of the WHOQoL-Old module was supported, as correlation and multivariate analyses partly confirmed the relevance of individual items and factors in both the healthy and sick groups (Paper II). The results partially confirm the three aspects of construct validity: convergent validity, known-group validities and discriminate validity. Construct validity was supported by the confirmation of the theoretical-based hypothesis and research questions in Papers III and IV. Convergent validity (Paper II) was strengthened by showing that the most conceptually clear facets were Death and Dying for both groups, and Sensory Abilities in the sick group. The validation of known-groups was shown by different significant contributions in multiple regressions analysis for the two groups (healthy and sick; Paper II). This was evidenced by differences between healthy and sick older adults when testing conceptual models based on the WCM (Papers III and IV). Concurrent validity showed the WHOQoL-Old module total and facets to be significantly negatively correlated with the GDS–15 total score in both groups (Paper II).

Overall, this thesis confirms the need for systematic validation of a measurement assessing QoL among older adults. It shows the strengths and weaknesses in the validity of the recently developed Norwegian WHOQoL-Old module measurement. The module needs further investigation, testing and refinement in various sociodemographic subgroups of Norwegians and older international adults. Moreover, this thesis contributes to knowledge concerning the QoL among older adults with or without community health care in Norway. This information can be used by nurses in the community to provide nursing care with important means to outline and apply interventions towards a good life, especially for vulnerable people.
ACKNOWLEDGEMENTS

The present work was carried out in cooperation with the World Health Organisation Quality of Life-Group (WHOQOL-Group) and Statistics Norway. The study was financially supported by the European Union and Diakonova University College.

Many people have been involved in this study and I am grateful to each and every one of them. First of all I would like to thank all of the older adults who gave their time and participated in the Norwegian WHOQOL-Old study. Without their participation this thesis would not have been possible.

My sincere thanks also go to my supervisors who have inspired me throughout this process: Professor Mary Kalfoss, my main supervisor, for introducing me to the WHOQOL-Group, for providing valuable support and constructive criticism at all stages of my thesis, and for sharing her experience of quality of life research and academic writing; Professor Marit Kirkevold, my co-supervisor, for her skilful supervision, trust in my work, constructive criticism, and sharing her knowledge about research and academic writing; Professor Venke Sørlie, my co-supervisor in the early work of this thesis before she moved to another part of the country, for her encouragement and support. Co-author Associate Professor Åge Diseth has inspired me by introducing me to new methodological approaches and has contributed with guidelines throughout the analyses. Associate Professor Magne Thoresen has contributed with guidelines throughout the statistical analyses. Senior researcher Siri Naess has contributed with advice in the first part of the thesis.

Thanks to my colleagues at Diakonova University College for their motivating comments during this process. Many thanks to Librarians Jenny Owe and Mona Christiansen for their help in retrieving obscure articles. I am grateful to retired rector, now Senior Consultant, Ann-Christine Fritzønn as the first one to encourage me to undertake this thesis.

During the translation process of the questionnaire used, Librarian Jenny Owe and Rector Mardon Breimoen contributed with the language in making the measurements suitable for Norwegian conditions.

All my friends have been invaluable in supporting me. Finally to my family, who mean everything to me, Kjetil, Sara, Tuva, Øystein, Christine, Caroline, Signe, Marius, Sigurd, baby Sara, my husband Arne, my mother Kirsten and my brother Rune and his daughters. You all make me feel proud about life.
5.1.3 Main results of Paper II 48
5.1.4 Main results of Paper III 49
5.1.5 Main results of Paper IV 50
5.1.6 Summary of results 51

6.0 GENERAL DISCUSSION 53
6.1 Content validity 53
6.2 Construct validity 55
   6.2.1 Convergent validity 57
   6.2.2 Known group validity 59
6.3 Concurrent validity 60
6.4 Design and methodological biases in the study 61
   6.4.1 Design 61
   6.4.2 Sampling biases and non-response 62

7.0 CONCLUSIONS 64
7.1 Implications 65
   7.1.1 Implications for research 65
   7.1.2 Implications for practice 66

REFERENCES 68

Paper I – IV
Appendix
Tables and figures

Table 1. Phase one; characteristics of the participants of the focus groups
Table 2. Phase two; characteristics of the participants in the pilot study
Table 3. Sample, inclusion criteria and exclusion of the review (n = 47)
Table 4. Overview of the questionnaire in the study
Table 5. Facets and items of WHOQOL-Old
Table 6. Domains and items of WHOQOL-Bref based on the WHOQOL-100 domains
Table 7. Sociodemographic and self-reported health questions
Table 8. Sample characteristics of the participants in the cross-sectional study

Figure 1. Wilson and Cleary’s Model
Figure 2. Flowchart of the studies assessed in the review study
Figure 3. Flowchart of the sample in the cross cross-sectional study
Figure 4. Path Analysis (SEM) of the variables (healthy group)
Figure 5. Path Analysis (SEM) of the variables (sick group)
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ADL</td>
<td>Activity of daily living</td>
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<td>ATA</td>
<td>Attitude to Ageing</td>
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<td>CFA</td>
<td>Confirmatory factor analysis</td>
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<td>EFA</td>
<td>Explorative factor analysis</td>
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<td>GDS-15</td>
<td>Geriatric Depression Scale 15</td>
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<td>HRQoL</td>
<td>Health-Related Quality of Life</td>
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<td>HSCL-25</td>
<td>Hopkins Symptoms Checklist-25</td>
</tr>
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<td>SEM</td>
<td>Structural Equation Modeling</td>
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<td>SF-12</td>
<td>The 12-Item Short Form Health Survey</td>
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<td>SN</td>
<td>Statistics Norway</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WHOQOL-100</td>
<td>World Health Organisation Quality of Life 100</td>
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<tr>
<td>WHOQOL-Bref</td>
<td>World Health Organisation Quality of Life Bref</td>
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<td>WHOQOL-Old</td>
<td>World Health Organisation Quality of Life Old</td>
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<td>WHOQOL-Group</td>
<td>World Health Organisation Quality of Life –Group</td>
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<td>WHO-5</td>
<td>WHO-Five Well-being Index</td>
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List of papers

This thesis is based upon the following papers. In the text they will be referred by their Roman numerals.


1.0 INTRODUCTION

Quality of life (QoL) has been a philosophical, psychological and socio-political phenomenon for hundreds of years (1). With the increasing number of older adults living longer lives, interest in their QoL has risen the past several decades (2-4). With increased older adult longevity, nurses are attending to lifestyles issues that impact the QoL of both healthy and sick adults. There is not any “gold standard” for assessing QoL (1). Thus, a valid measurement of QoL, which considers what is important for the QoL of older adults, needs to be investigated. Several measurements are used in QoL research among older adults (5,6). However, many of these measurements are based on younger populations and are not age-specific (7,8). This can result in assessing irrelevant factors for older adults, such as employment, or in failing to assess specific QoL areas that may be very important to older adults. For example, ageing is often described as reflecting biological, psychological and social changes in life (9). These changes include having more time to spend together with grandchildren and family and more time to participate in leisure activities. Additionally, there is the chance that one will experience losses in life, such as losing a partner, having poorer energy or less physical function. Such issues raise the question of whether or not there are specific QoL areas that may be more important in older adults (10,11). Thus, valid measurements must be investigated to support the many applications focused on older adults, including clinical practice, research and policy-making. Recently a new module for the assessment of QoL among older adults was developed in an international study entitled “The Measurement of the Quality of Life in Older Adults and its Relationship to Healthy Ageing (WHOQoL-Old)”. In this study, the Norwegian WHOQoL-Old module was developed in a large cross-cultural project, which was composed of three phases (i.e., focus groups, pilot study and field study) and was carried out by 22 worldwide centres. The aims of this thesis were to investigate the conceptualization and measurement of QoL in older adults, as well as to validate the WHOQoL-Old module. The validation study is based solely on results from the field study phase, consisting of a Norwegian randomized and stratified sample. The two initial phases of the WHOQoL-Old project will be presented briefly, to provide an overview of the developmental process of the WHOQoL-Old module.
The WHOQoL-Group was first established in 1992 with participants from 15 centres worldwide. It was connected to the World Health Organization’s (WHO) programme on mental health (12). Norway entered the WHOQoL-Group in 1995. The main aim of the WHOQoL group was to form a definition of QoL and develop a cross-cultural measurement of QoL for use among younger adults. Thus, the primary objective of the WHOQoL project was to design a QoL instrument that is applicable for both healthy and sick people with varying disease types and illness severities, as well as diverse socioeconomic, age and cultural subgroups (13,14). Development of WHOQoL-Old followed an established standard WHO methodology for scale development. In developing the WHOQoL-Old, the WHOQoL-Group first questioned whether or not the questionnaires that had been developed in younger adult populations (WHOQoL-100, WHOQOL-Bref) could be used to assess QoL in older adult populations. A second question was also raised concerning whether or not there are specific areas of QoL that may be more important in older adults that should therefore supplement a generic adult questionnaire, to provide a broader and more valid general assessment. The developmental process of WHOQoL-Old was encouraged to provide a more valid general assessment among older adults, compared to earlier QoL measurements that were developed for use in younger populations, that could be used as a supplementary module to these instruments (12,15,16). The WHOQoL-Group started a development process to adapt the young adult version of the WHOQoL for use with older adults, then to test its use in a series of cross-cultural field trials among healthy and sick older adults (11,17).
2.0 QUALITY OF LIFE

2.1 Quality of life: definition and conceptual model

Though the concept of QoL has been used over a long period of time, a common consensus regarding a universal definition and conceptual model of QoL is absent (5,8,18-20). This lack of definition and conceptualization makes it difficult to determine which core aspects of QoL are the most important in assessing the QoL of older adults worldwide (21,22). QoL definitions are as numerous and inconsistent as the methods for assessing it. These definitions often emphasise components of different concepts, such as happiness, well-being and satisfaction with life, and they also link QoL to health (1). Thus, in assessing QoL, different variables have often been used without a conceptual model (5,23,24). The conceptual model is important because it serves as a means of relating concepts together in a rational scheme by virtue of their relevance to a common theme (25). Therefore, clarifying a definition and a conceptual model is necessary in QoL research.

Based on the WHO’s health definition from 1948 (26), which was one of the first statements recognising the importance of three dimensions (i.e., physical, mental and social) in the context of disease, the WHO Quality of Life Assessment Group (14) defined QoL as:

“individuals’ perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the individual’s physical health, psychological state, level of independence, social relationships, personal beliefs, and their relationship to salient features of their environment” (p 1405).

This definition is subjective and contains core elements, including the physical, psychological, social and environmental areas. Thus, QoL is considered multidimensional, where its parts affect each other and their overall summation. The dynamic nature of QoL poses further measurement challenges. QoL is composed of both positive and negative experiences and affects. Self-perceptions of life may change over time in response to life
and health events, as well as experiences. For example, consciously or unconsciously, people may accommodate, adapt or adjust to deteriorating circumstances, whether in relation to health, socio-economic status or other factors. They do this because they want to feel as good as possible about themselves. In total, this definition reflects an individual subjective appraisal of QoL that is influenced in complex ways by a broad array of factors. Although a concrete definition of QoL has guided the WHOQoL-Group in operationalising the WHOQoL measurements, the work has not been grounded in a theoretical or conceptual model (23).

Wilson and Cleary (27) offer a conceptual model where different types of variables interrelate, including an overall assessment of QoL. These authors consider QoL as the subjective perception related to how happy and/or satisfied the individual is with his or her life as a whole. Although their model is not grounded in a specific QoL definition, Wilson and Cleary argue that their model consists of a combination of two paradigms: the biological and sociological. Older adults experience biological, physiological, psychological and sociological changes, as well as gains and losses (9,28). These justify the use of a conceptual model that combines these paradigms in QoL research among older adults. A conceptual model guides the relationship among the concepts used and serves as a springboard for the generation of research hypotheses (25). Furthermore, a conceptual model increases the power of research by facilitating the interpretation of meaning and relationship patterns among variables (29). Wilson and Cleary’s model (WCM) (27) has been used frequently in nursing research, as well as in other healthcare research (30,31,31-40). Studies have used the model differently; part or all of the model has been used and it has been operationalised and analysed differently. Others have considered the WCM to be a middle range theory of health-related QoL (41).

The WCM hypothesizes a taxonomy of patient outcomes according to five levels: “biological and physiological variables, symptom status, functional status, general health perceptions and overall QoL” (27). These levels occur on a continuum with the biological variables at one end, with more complex and integrated measures of health perception and overall QoL at the other end. The first level includes biological-physiological variables and traditional clinical variables (e.g., medical diagnoses), as well as physiological examinations (e.g., laboratory variables). The second level, symptom status, is defined as the perception of an abnormal physical, emotional or cognitive state; it is considered to be
an important determinant of functioning. The third level, functioning status, is the ability to perform particular defined tasks. The fourth level refers to a subjective health that integrates all of the preceding concepts (e.g., general health perceptions), representing an integration of symptom status, functional status and the biological variables. The fifth level, QoL, is considered as the subjective rating of the perception of happiness and satisfaction in one’s life as a whole. Each of the levels, except the biological level, is influenced by individual and environmental characteristics. Non-medical variables, such as political, spiritual and cultural factors, are also assumed to influence one’s overall QoL. According to the WCM symptom status and functional status, general health perception serve as mediators to overall QoL (see Figure 1).

**Figure 1. Wilson and Cleary’s Conceptual Model of QoL**

![Diagram of Wilson and Cleary's Conceptual Model of QoL]

The model was used with the permission of Dr. Wilson, Dr. Cleary and JAMA (Wilson, I. B. and Cleary, P. D., 1995. Linking clinical variables with health-related quality of life. A conceptual model of patient outcomes. The Journal of the American Medical Association 1 (273), 59-65). Copyright © American Medical Association 1995.

* Not operationalised in this thesis
In summary, both the WHOQoL-Group definition of QoL and the WCM consider QoL as a subjective phenomenon. Furthermore, the WHOQoL-Group’s definition considers QoL to be a multidimensional concept of core elements. Also, the WCM can be used as a conceptual model linking related concepts together with QoL.

2.2 Quality of life among older adults

The WHO (2009) defines being “older” as being 60 years of age; it defines the oldest, or very old, as being 80 years old or more. In Norway, being older is commonly defined at the retirement age of 67 years, even though a growing number of people leave work starting at the age of 62 years, through early retirement schemes. Today in Norway, 10% of the population are 60 - 69 years, 6% are 70 – 79 years, 5% are 80 – 89 years and 0.7% are 90 years or more (42). Regarding the increasing number of older adults worldwide and the growing number needing nursing care during their old age, it is important to learn more about the QoL experience among these groups. It has been suggested that QoL in older adults should be assessed from a broad perspective that focuses on health, functional status, family relationships, social contacts, daily living activities, feelings of security, feeling of psychological symptoms, thoughts regarding a meaningful past and future, and changes due to ageing (2,3,9,10,43,44).

2.2.1 Assessing quality of life among older adults

Different approaches have been reported in assessing QoL among older adults, including qualitative (45,46) and quantitative designs (47,48). The second design-group uses a wide range of QoL assessments, including overall, generic and disease-specific measurements (7,8). Overall QoL assessment is often referred to as one single item. Generic measurements are usually referred to as broader multidimensional measures. These are designed to assess the QoL for all patient-groups with all types and severities of disease, all age groups, all cultural subgroups and in healthy people (1,49-51), such as with the WHOQoL measurements (WHOQoL-100 and WHOQoL-Bref). Disease-specific measurements were developed to focus on the consequences for individuals with special
diseases (e.g., New York Heart Association assessing cardiovascular symptoms) (52). Due to the lack of QoL measurements developed for and within the population of older adults (5,7,8,23), different assessment methods have been used that often focus on different perspectives of QoL. With the large variety of measurements applied to assess QoL, it is difficult to review and summarize the literature on QoL among older adults.

2.2.2 Quality of life among older adults linked to related concepts

It is beyond the scope of this thesis to review all of the growing literature on QoL among older adults. Thus, the major outcomes levels in the WCM model directed the choice of literature reviewed. The literature review in this thesis is focused on our operationalised levels and characteristics of WCM (Figure 1) as follows: symptom status (level 2) as depressive symptoms, functional status (level 3) as physical function, perceived health (level 4) as health satisfaction, characteristics of the environment as environmental factors, and characteristics of the individual as age.

Quality of life and depressive symptoms. Depression and dementia were found to decrease QoL. On the other hand, factors including social contacts, autonomy, health, material circumstances, meaningful activities and having no functional limitations were found to increase QoL, as from a narrative literature review (53). In another study, depressive symptoms were the only significant predictor of QoL among sick and healthy older adults over 60 years (n = 4316) (54). Also, among in- and out-patients (aged 65–90, n = 39) at a geriatric psychiatric service in Australia, depression was associated with poor QoL (55). Depressive symptoms, together with a higher number of medical conditions, restricted ability to be alone, living alone, age and loneliness, predicted lower QoL in a study of 4337 Swedish people over 75 years in age (56). In another study with the same sample, depressed mood, loneliness, disease, quality of sleep and pain were found to predict QoL among older adults (aged 75 and over) living at home without help (47). This is supported by others where factors such as helplessness, dependency on others, ill health, poor functioning, bad home or neighbourhood have been reported as the most important factors in decreasing QoL for older people (10,57,58). Further, physically helpless (dependent) older adults aged 65–97 living at home in Italy (n = 167) reported that depression had less influence on QoL than anxiety and functional status (59).
Quality of life and physical function. One can question whether physical function serves as a mediator between depressive symptoms and QoL. For example, Ellingson and Conn (60) found that physical activity was shown to be related to higher QoL in a review of healthy and frail older adults aged 60 years and over. Mobility problems, in terms of ability to perform physical activity, psychosocial problems and need for help with daily living activities, were strong predictors for low QoL among older adults living at home and in special accommodations in Sweden (n = 4277, mean age 83.6) (61). Furthermore, physical function was the most important factor related to QoL among non-frail adults (aged 66-91, n = 14) (62). It was the fourth most frequently mentioned variable, after social relations, health and activities, as being important to QoL among people aged 66-99 years (n = 141) (63,63).

Quality of life and health satisfaction. Health satisfaction, finances, meaning of life and leisure opportunities were found to be the most important predictors of QoL among a random sample of community-based older adults aged 60 and over in Canada (n = 288) and Brazil (n = 202) (48,48). Health satisfaction, finances, physical environment, daily living activities and emotional support also had significant relationships with QoL in a study of community-based older adults in Canada (60 years and over, n = 420) (64). The influence of health satisfaction and environmental conditions has been supported by Evans et al. (65). They found that health satisfaction and environmental conditions, such as finances, social life, leisure and living arrangements, are significant predictors of QoL among community-based older adults aged 65 years and over.

Quality of life and environmental conditions. The importance of environmental conditions on the QoLs of older adults has been shown in a British study using a mixed method (57,66). A randomized sample (n = 999) of older adults living at home aged 65 and over participated in a QoL survey. One group (n = 80) of these respondents was followed up with and interviewed in-depth to explore perceptions of QoL. The three most important areas for QoL were having social relations (e.g., having good family, marriage, friends, neighbours and pets), good health, and a good home and neighbourhood. Results of the national survey, conducted by face-to-face interviews using mostly structured questions
(Quality of Life Survey Questionnaire), showed that the same themes were identified, with social relations being the most important (57,67). Environmental conditions are regarded as a mix of external conditions important to the QoL of older people. They include living in a safe area, finances, leisure activities, available information, seniors services, living in a warm house and being able to manage housekeeping and shopping activities (62,68-71). Leisure activities have been reported to depend on physical function and other environmental conditions, such as personal finances and transport (48,62). Holland et al. (72) also underlined that individual aspects are fundamental to environmental considerations. These authors suggest that the environment is never experienced as unitary or monolithic, but as a series of settings where older adults experience day-to-day living.

**Quality of life and age.** One can ask if age is an influencing factor to QoL. This question is difficult to answer, as it is uncertain whether it is the changes related to age that influence QoL or the experiences in life as being an older person. Research has shown that QoL scores changed during the lifespan, when adjusted for illness, disability and depression, as well as sociodemographic and socioeconomic variables (73). These authors reported that QoL actually increased from 50 years onwards, peaking at 68 years before it started to decline. Recently, Netuveli and Blane (53) argued that a long period of good QoL is possible, as ageing does not influence QoL negatively. A longitudinal study showed no substantial relationship between age and the average change in QoL scores among adults aged 70 and older, and in groups aged 18–54 and 55–69 undergoing haemodialysis (74). Andersson, Hallberg and Edberg (75) indicated in samples of older adults (over 75 years in age) in need of help with instrumental activities of daily living, the oldest had lower QoL compared with younger groups. However, other variables explained the lower QoL among the oldest of these adults. The oldest group had more health complaints and were significantly more dependent on help, compared with the younger group.

In summary, the literature review described depressive symptoms, physical status, health satisfaction, environmental conditions and age as influencing QoL among older adults. Therefore, together with the results of the literature in this paragraph and the lack of
universal definition or conceptual model used in QoL research, the operationalised variables of WCM used in this study are depressive symptoms, physical function, health satisfaction, environmental conditions and age, as well as how these factors influence QoL among older adults.

2.3 Validity and reliability of QoL measurements

Measurements used to assess QoL among older adults often contain a single item or multiple items per domain (75-79). QoL measurements should satisfy primary basic properties, such as validity and reliability, together with sensitivity and responsiveness (1,24,80). Furthermore, structured questionnaires, such as the WHOQoL-Old, should be based on psychometric analysis (81). Many authors categorize these basic properties differently. Therefore, for the purpose of this thesis, mainly Fayers and Machin’s (1) and Polit and Beck’s (25) categories and definitions of validity and reliability were used, together with Bowling and Ebrahim’s (81) definition of psychometric evaluation. Both reliability and validity may be assessed conceptually, by layman and/or expert evaluation (see elsewhere the description of phase one in the WHOQoL-Old), and mathematically, such as by psychometric evaluation. Psychometric theory is based on knowledge of how to measure sociological and psychological concepts together with scientific principles of mathematics according to psychological issues. According Bowling and Ebrahim (81):

“Psychometric theory dictates that when a concept cannot be measured directly (e.g. health status, QoL, health-related QoL), a series of questions which tap different aspects of the same concept need to be tested for their reliability (consistency) and validity (whether they measure what they purport to) – their psychometric properties” (p 394 -395).

Psychometric theory involves several distinct tests and analyses and includes both classical test theory and modern theory.

2.3.1 Validity

Validity refers to the extent to which a measurement determines what it is intended to measure (1,25). However, as Fayers and Machin (1) state:
“Since we are attempting to measure an ill-defined and unobservable latent variable (QoL), we can only infer that the instrument is valid in so far as it correlates with other observable behaviour” (p 77).

According to these authors, validity can be subdivided into three groups: content validity, construct validity and criterion validity.

Content validity concerns the extent to which the items are sensible and reflects the intended domain of interest and scope of the individual questions. Face validity is often seen as an aspect of content validity and is closely related to content validity (1). Face validity means evaluating whether items in a measurement appear on the face of it, covering the intended issues clearly. The main distinction is that content validity mainly consists of ensuring that comprehensive and thorough development procedures were rigorously followed and documented. On the other hand, face validity concerns the critical review of a measurement after it has been constructed. Fayers and Machin (1) suggest: “when developing questionnaires, the proposed questionnaire should be shown to patients and staff, asking them to review it for acceptability, comprehensiveness, relevance of items, clarification of wording and ambiguity of items” (p 64).

There are no objective methods of assessing content validity. However, judgements made by an expert panel may agree that particular items are essential (25,81).

Construct validity, one of the most important characteristics of a measurement, assesses the degree to which an instrument measures the construct that it was designed to measure by using a variety of techniques (1,81). Convergent validity, discriminant validity and known-groups validity are all three aspects of construct validity. To explore convergent validity, correlations are often used to show that a postulated dimension of QoL correlates appreciably with all other dimensions that should, in theory, be related to it. This might be difficult in the atheoretical field of QoL. Notably, nearly all QoL dimensions correlate with each other; the assessment of convergent validity consists of analysing the strongest and weakest correlations. Fayers and Machin (1) stated that a very high correlation between two scales raises the question as to whether both of the scales are measuring the same factors, and if they could be combined into a single scale without any loss of information. In multi-item scales, item-to-item, item-to-level (facet/domain) and often item- or facet/domain-to-sumscore are explored to determine the convergence. These are close to reliability in terms of internal consistency. Discriminate validity anticipates
that some items are unrelated and their correlations should be low. Known-groups validation is based on the assumption that certain specified groups score differently from each other.

Criterion validity is often divided into concurrent and predictive validity (1). Only concurrent validity, which means agreement with the true value, is investigated in this thesis. Such agreement as a “gold standard” is not available in QoL research (1). Thus, it is common to compare the new questionnaire against a well-established measurement. The reason for validating a recently developed measurement is that researchers believe existing ones are suboptimal. Therefore, to confirm concurrent validity, the two measurements may be compared for the same construct, or for presumably different related constructs. Predictive validity concerns the ability of a measurement to predict future status, future events or future test results. For example, it has been frequently reported that overall QoL scores are predictive of subsequent survival time in cancer, and that QoL assessment provides additional prognostic information that can supplement more objective measures. Consequently, this implies that future health status can serve as a criterion against which the instrument is compared. To make such an assumption, the researcher will have to form or make use of an existing conceptual model of the construct being assessed and its relationship with future outcomes (1).

However, confirming validity is never proof that the measurement is really tapping into the intended constructs. Therefore, demonstration of good validity is a never-ending process of collecting more and more information, showing that there are no grounds to believe the measurement is inadequate for the populations being investigated.

2.7.2 Reliability

Assessment of reliability requires the use of different techniques. In general, reliability assessment consists of determining whether a measure yields reproducible and consistent results. Fayers and Machine (1) proposed two forms of reliability. First, internal reliability, was proposed for scales containing multiple items. In this form, all items should be consistent in the sense that they should all measure the same thing. Secondly, term reliability is used to describe aspects of measurement reputability and stability. Internal reliability, which is assessed in this thesis, employs item correlations to assess the homogeneity of multi-item scales by the statistical technique Cronbach Alpha. A Cronbach
Alpha value of 0.70 is considered by Nunnally (82) to be the minimal acceptable level of internal consistency reliability. However, others accept Cronbach Alpha values over 0.70 as indicators of good internal consistency (81).

It is apparent that validity reliability needs to be investigated in different samples, confirming reproducibility and consistency in that particular sample.

2.4 Methodological considerations

There are many threats to the validity and reliability of measurements, in addition to many errors that can be made in the introduction portion of a study, scales, layout, questionnaire order, questionnaire form, response timeframe and administration method. These threats need to be considered in light of some older adult respondents experiencing fatigue, memory problems and other physical and/or mental problems (9,28).

First, in addition to a written overall introduction, every scale must be prefaced by some introductory comments concerning the nature, purpose and timeframe of the following items (25,81).

Second, the questionnaire layout might influence a respondents answers (81). The paper-based questionnaires need to be printed clearly and professionally. They must be visually easy to read with lower-case letters, avoiding coloured paper and proper fonts.

Third, the questionnaire form and order should also appear to be psychologically meaningful to the respondents, as well as to encourage their candour and cooperation (25,81). Earlier questions might influence replies to subsequent questions. According to ethical considerations, sensitive questions (e.g., items about depressive symptoms) should be avoided at the end of a questionnaire package.

Fourth, older people might have problems remembering the details of their own habits and actions (9). What they feel about conditions such as health, mood and energy might shift more day by day compared to younger people (83). This makes it difficult for them to answer what they felt in a certain period of time (e.g., the last two weeks). Also, a shift in timeframe throughout a questionnaire package might confuse the respondent to answer within the wrong timeframe.

Fifth, owing to challenges resulting from the ageing process and diminished functional capacity, face-to-face interviews are recommended among frail older adults. Bowling (84) describes this method as the least burdensome for this group, as it only requires the
respondents to speak the same language in which the questions are asked and to have basic verbal listening skills. However, respondents have been shown to give more positive and socially desirable responses and more often are “yes-saying” in face-to-face interview surveys than in self-administered surveys (81,84-86). Self-administered surveys are less time-consuming than face-to-face interviews, making it possible to increase the number of participants within the frame of finance and time. The use of mixed administration methods might bias studies. However, the increased costs of interview surveys need to be balanced against the fact that surveys result in more missing data and self-administered surveys make it easier for respondents to answer the questionnaire at their own tempo (84).

In summary, there is a lack of QoL measurements developed for and within the population of older adults. This lack has resulted in an increasing need to investigate the validity of QoL measurements intended for use among older adults. Additionally, there is no universal definition or conceptual model of QoL to guide research. This makes it difficult to compare QoL studies. Consequently, a literature review helped guide the choice of a conceptual model for use in this thesis and the delineation of relevant factors impacting QoL among older adults, namely: depressive symptoms, physical status, health satisfaction, environmental conditions and age.
3.0 AIMS AND RESEARCH QUESTIONS OF THE STUDY

The aim of this thesis was to investigate the literature measuring QoL among older adults and to validate the WHOQoL-Old module.

The objectives and research questions in Paper I:

Due to the variety of QoL measurements used and the assumption of no “gold standard” for measuring QoL among older adults, a summary of the literature concerning QoL measurements among older adults was performed by a literature review (Paper I). The overall aim of this literature review was to explore whether there exists a consensus on the conceptualization and measurement of QoL among older adults.

Research questions:
What are the conceptualization and measurement properties of QoL instruments used in empirical studies among older adults from 1994 to 2006?
What methodological considerations are given for the assessment of QoL among older adults in empirical studies among older adults from 1994 to 2006?

The objectives and research questions in Paper II:

The development process of WHOQoL-Old, which this thesis is nearly connected to, resulted in the development of the WHOQoL-Old module. As part of the validation process, the aim of this paper was to explore the psychometric properties of the module with respect to content, convergent, known group and concurrent validities.

Research questions:
What are the scaling properties of the Norwegian WHOQoL-Old module?
Does the Norwegian final version of WHOQoL-Old support the predefined conceptual structure developed through the measurement developing process?
Do items in the sub-scales of WHOQoL-Old correlate strongly or weakly with each other?
Do items in the specific domains correlate strongly or weakly with the score of their own sub-scale?
Does the study support a prior specification of a postulated structure?
Does the Norwegian WHOQoL-Old show discriminating power?
Does the Norwegian WHOQoL-Old show good reliability (internal consistency)?

**The objectives and hypotheses in Paper III:**
The conceptual model, based on the WCM, offered a rational scheme to place related concepts together as a springboard for generations of research questions and/or hypotheses. This made it possible to investigate the fitness of the theoretical model toward investigating the construct, known group and concurrent validities of the WHOQoL-Old among older adults who are defined as healthy.

Hypotheses:
Depression, physical function, health satisfaction, age, environment and QoL are correlated.
These variables may be accounted for by a causal model, which is in line with the WCM, as follows: depression → physical function → health satisfaction → QoL.
Age and environment are expected to have direct effects on QoL, as well as indirect effects via depression, physical function and health satisfaction.

**The objectives and hypotheses in Paper IV:**
As in Paper III, the conceptual model based on WCM offered a rational scheme to put related concepts together as a springboard for generations of research questions and/or hypotheses. This made it possible to investigate the fitness of the theoretical model toward investigating the construct, known group and concurrent validities of the WHOQoL-Old among older adults. In Paper IV the focus was on sick older adults.

Hypotheses:
Depressive symptoms, physical function, health satisfaction, age, environment and QoL are correlated.
Depressive symptoms, physical function, health satisfaction, age, and environment are predictors of QoL.
Age and environment have both direct and indirect effects on QoL via the mediators of depressive symptoms, physical function and health satisfaction.
4.0 MATERIALS AND METHODS

Confirmation of a scale’s validity depends on how the scale has been designed and developed (1). Therefore, the WHOQoL-Old developmental process needs to be described to provide justification for claiming validity and, in particular, content validity.

4.1 Development of WHOQoL-Old

4.1.1 Scale-development programme

Scale-development should follow a well documented process with specific sequences of stages (1). Take, for example, the process described by the WHOQoL-Group in initial publications, which discussed the developmental process and testing, followed by reports of field-testing and validation studies (12,14-16,87,88). The development of WHOQoL measurements followed the WHOQoL methodology, which emphasizes a simultaneous cross-cultural approach to instrument development, with the rigorous application of qualitative and formal quantitative methods that are dependent upon statistical and psychometric techniques (15,16). The WHOQoL-Old measurement has been developed over three phases, according to the WHOQoL-Group strategies (15,16).

The main objective of the WHOQoL-Old programme was to develop a measure for QoL assessment in older adults and to test this measure in an innovative cross-cultural study of healthy ageing. This development was worked out through the adaptation of the published QoL measure for younger adults, including WHOQoL-100 and WHOQoL-Bref, by the WHOQoL-Group (17). The objective of the development of WHOQoL-Old was attained through a number of substantial steps (17).

1) “A review of the current WHOQoL-100 by the participating centres and the agreement of key areas for discussion in the focus groups.
2) The running of focus groups (a minimum of one professional and one older adults group) in each of the participating centres.
3) Central coordination of feedback from preliminary focus groups, feedback to participating centres, further focus group work, and feedback to coordinating group.
4) Item generation by the coordinating group working in English, then translation and back translation of items by each centre.
In summary, the steps for the developmental process of the WHOQoL-Old followed the published WHOQoL methodology (11). Phase one contained steps 1, 2 and 3; phase two contained steps 4, 5, and 6; and phase three contained steps 7 and 8. The phases consisted of focus group work at collaborating centres, item generation, pilot testing, refinement and item reduction. Subsequently, field trial testing of the instrument was carried out, as described below. Prior to the focus group exercise, the iterative Delphi process was used to identify gaps in WHOQoL-100 coverage that might be relevant for older adults, as well as any other issues concerning the use of the WHOQoL with older adults. For all phases, each centre worked in its own culturally-appropriate language, permitting development of the Older Adults WHOQoL in each language. Some of the development was necessarily performed in English. Through tested methods of translation and back-translation (12), the final versions were completed and tested at each centre.

4.1.2 Phase one: focus groups

The aim of phase one was to run focus groups with relevant participants, to identify QoL dimensions and items for inclusion in the older adults WHOQoL module. In Norway, six groups were conducted: two groups were defined as healthy older adults; two groups were defined as unhealthy older adults; and two groups contained health care workers (see Table 1). The focus group discussions included: a general unstructured discussion on the QoL dimensions that were important for older adults; a commentary on and assessment of the facets and items from the WHOQoL-100 instrument; feedback on additional facets and
<table>
<thead>
<tr>
<th></th>
<th>Sick</th>
<th>Healthy</th>
<th>Carer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of participants</td>
<td>9</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Male</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 – 39</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>40 – 49</td>
<td></td>
<td></td>
<td>3</td>
</tr>
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<td>50 – 59</td>
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<td></td>
<td>4</td>
</tr>
<tr>
<td>60 – 69</td>
<td></td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>70 – 79</td>
<td>2</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>&gt;80 yr</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
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<td>Civil status</td>
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</tr>
<tr>
<td>Unmarried</td>
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<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Married</td>
<td>1</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Widow/widower</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Divorced/separated</td>
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<td>1</td>
<td></td>
</tr>
<tr>
<td>Living together</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Education</td>
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<td></td>
</tr>
<tr>
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<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real school/ Framhaldsskole</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Vocational school</td>
<td>2</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>College</td>
<td>1</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>University</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Years working with elderly patients</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – 2 years</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 – 6 years</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 – 10 years</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than 10 years</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Table 2 in Kalfoss (89)

items that had been previously suggested prior to the focus groups; and the gathering of ideas from participants for additional areas of QoL or items that participants felt were not
covered during discussion. Suggestions for additional facets and items appearing in Norwegian interviews were translated into English as the working language. Equivalent items were identified across the various suggestions from each centre. Then, each centre was given feedback from the study centre about the proposed items. This process eventually led to the generation of a set of 40 pilot items, which were used in phase two. The results of the focus groups are presented elsewhere (89,90).

4.1.3 Phase two: pilot study

The international protocol of WHOQoL-Old stipulated that each centre obtain a minimum of 300 older adults, with equal numbers of men and women, people aged 60 to 80 years and people aged over 80 years, including both healthy and unhealthy (sick) respondents. The Norwegian convenience sample ($n = 379$) comprised two cohorts (see Table 2). The first cohort ($n = 766$ persons with 287 responding, a response rate of 43%), which we defined as our healthy group, was not hospitalized. Participants were recruited by contacting 25 institutions and organizations in Norway. These organizations included two national senior organizations, 15 district and regional senior and political organizations and three voluntary organizations. First, all organizations were contacted via telephone by the second author. Five institutions/organizations agreed to take part in the study. These organizations included the two national senior organizations, three district senior organizations, one voluntary organization for seniors and two senior political organizations. Reasons given for not wanting to take part in the study were anticipated difficulties in recruiting participants, incomplete addresses and shortage of time. Organizations agreeing to take part in the study received a formal written invitation. Contact persons at these institutions recruited potential participants according to the following inclusion criteria: participants over 60 years who were not presently hospitalized or had known reduced cognitive function. Contact persons held administrative positions in the national organizations and had an overview of national members. Contact persons at the senior organizations were healthcare workers affiliated with these organizations working in administrative positions. Information regarding the study was presented by them personally at organizational meetings. Those who agreed to participate were given self-completed questionnaires by the second author. The second cohort ($n = 95$ with 92
respondents, three withdrawing due to illness complications), which we defined as our unhealthy (sick) group, were recruited from three medical wards at a 670-bed hospital and ambulatory clinic in Eastern Norway (see Table 2). The medical wards were comprised largely of patients with heart, lung and cancer problems. Nursing administration appointed contact nurses who recruited potential participants. Inclusions criteria included: patients over 65 years, presently hospitalized/attending ambulatory clinics and who had given informed consent. Because of an ongoing other research study among older adults younger than 65 years at the hospital, the age of 65 years and over was necessary. The hospital research department considered enrolment in two studies at the same time as being unethical. Exclusion criteria included the following: terminal illness, acute critical illness situation, reduced cognitive status and no present or previous psychiatric treatment in the past five years, as well as reduced reading, writing and hearing problems. Contact nurses screened participants for cognitive functioning using clinical judgement, and provided oral and written information. Two administration methods were used, due to the respondents’ illness and possible lack of energy: 1) data were collected by face-to-face interviews and 2) by interview. The author of this thesis and three other health professionals (two nurses and one physiotherapist) experienced in interviewing carried out the personal interviews. Both healthy and unhealthy participants signed a written informed consent. As in phase one, the Norwegian results were translated into English and transferred to the international coordination centre.
Table 2. Phase two: characteristics of the participants in the pilot study

<table>
<thead>
<tr>
<th></th>
<th>Healthy N (%)</th>
<th>Sick N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (years)</td>
<td>73.2</td>
<td>73.2</td>
</tr>
<tr>
<td>Range (years)</td>
<td>60-90</td>
<td>60-90</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>246 (85.7)</td>
<td>35 (38)</td>
</tr>
<tr>
<td>Male</td>
<td>39 (13.6)</td>
<td>46 (50)</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With partner</td>
<td>133 (46.3)</td>
<td>46 (50)</td>
</tr>
<tr>
<td>Without partner</td>
<td>151 (52.6)</td>
<td>35 (38)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>29 (10.1)</td>
<td>26 (28.3)</td>
</tr>
<tr>
<td>Higher</td>
<td>78 (27.2)</td>
<td>37 (40.2)</td>
</tr>
<tr>
<td>University</td>
<td>117 (61.2)</td>
<td>19 (20.7)</td>
</tr>
<tr>
<td><strong>Finances</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>229 (79.8)</td>
<td>55 (59.8)</td>
</tr>
<tr>
<td>Average</td>
<td>48 (16.7)</td>
<td>23 (25)</td>
</tr>
<tr>
<td>Poor</td>
<td>6 (2.1)</td>
<td>5 (5.4)</td>
</tr>
<tr>
<td><strong>Living arrangements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living at home</td>
<td>254 (88.5)</td>
<td>9 (85.9)</td>
</tr>
<tr>
<td>Living in institution</td>
<td>22 (7.7)</td>
<td>4 (4.3)</td>
</tr>
<tr>
<td><strong>Health conditions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy</td>
<td>233 (81.2)</td>
<td>27 (29.3)</td>
</tr>
<tr>
<td>Unhealthy</td>
<td>42 (14.6)</td>
<td>52 (56.5)</td>
</tr>
</tbody>
</table>
4.2 This thesis: Literature review and phase three - field study

4.1.1 Design

The present thesis consists of a literature review, conducted from 1994 to 2006, and a cross-sectional study, which is the field study in the WHOQoL-Old project. The field study was conducted from April to June 2004 among Norwegians aged 60 and over. Data collection was based on a postal survey and face-to-face interviews. The cross-sectional study was done in collaboration with Statistics Norway (SN) (see Appendix 1).

4.1.2 Recruitment and sample

4.1.2.1 Literature review. This narrative literature review consisted of all studies meeting the inclusion criteria published from 1994 to 2006. Thus, the narrative literature review is comprehensive and covers a wide range of issues within a given topic, but does not necessarily state or follow rules about the search for evidence (91,91). Consequently, a selected group of databases that were assumed to assess QoL among older adults were chosen. A literature search in Medline, Cinahl, Embase, PsycINFO and Cochrane databases was undertaken in May 2005. In January 2007, a supplemental search was conducted covering the years 2005–2006 using these same bases. This also included a Sociological Abstracts and Anthropological literature base for the period from 1994–2006. In both searches the keywords quality of life, elderly, measurement, measurement scale, health-related and assessment were used to identify the corresponding controlled vocabulary system within each database. With the databases Medline, Cinahl, Embase, PsycINFO and Cochrane the word “elderly” is defined with the subject heading “aged”. We use the definition of aged as defined in Medline: “A person 65 through 79 years of age” and “aged, 80 and over”, which has also been supported by others (8,67).

Titles and abstracts of all articles were assessed for inclusion/exclusion criteria by two reviewers. Articles included were retrieved in full. Publications were included in this paper if they met the following inclusion criteria: (1) addressed older adults aged 65 years or older; (2) the authors explicitly stated that they intended to measure QoL and/or HRQoL; (3) written in the English or Scandinavian language; and (4) published in the period between 1994–2006. Publications were excluded when authors did not explicitly use the term QoL and/or HRQoL, but used other words such as mortality, life-satisfaction,
happiness, well-being, or functional status. The exclusion criteria are described in Table 3. Articles were excluded on the basis of their abstracts and reading full article texts. Forty-seven studies were reviewed, all of which were read in full text form (see Figure 2).

Table 3. Sample, inclusion criteria and exclusion of the review (n = 47)

<table>
<thead>
<tr>
<th>Databases assessed</th>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medline</td>
<td>(1) addressed older adults 65 years or older</td>
<td>(1) authors did not explicitly use the term “QoL and/or HRQoL” and used other words such as mortality, life-satisfaction, happiness, well-being, or functional status</td>
</tr>
<tr>
<td>Cinahl</td>
<td>(2) the authors explicitly stated they intended to measure QoL and/or HRQoL</td>
<td>(2) QoL was pointed out for further investigation in new studies</td>
</tr>
<tr>
<td>Embase</td>
<td>(3) written in English or Scandinavian language</td>
<td>(3) proxy informants were used</td>
</tr>
<tr>
<td>PsycINFO</td>
<td>(4) published within the period 1994–2006</td>
<td>(4) age classification was under 65 for a part of or the whole sample</td>
</tr>
<tr>
<td>Cochrane</td>
<td></td>
<td>(5) review articles</td>
</tr>
<tr>
<td>Sociological</td>
<td></td>
<td>(6) articles in the form of concept analyses, letters, commentaries, and abstracts relating to posters and oral presentations</td>
</tr>
<tr>
<td>Anthropological *</td>
<td></td>
<td>(7) articles with qualitative design</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(8) not English or Scandinavian language</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(9) not within the period 1994–2006</td>
</tr>
</tbody>
</table>

* Abstracts Anthropologica
Figure 2. Flowchart of the studies assessed in the review study

The review generated 499 articles from seven databases *

452 articles excluded

324 excluded:
Age classification was under 65 years for a part of or the whole sample

65 excluded:
Authors did not explicitly use the term “QoL and/or HRQoL” and used other words such as mortality, life-satisfaction, happiness, well-being, or functional status

30 excluded:
Not English or Scandinavian language

33 excluded:
other sample criteria**

47 articles reviewed in full text

* All the databases, see Table 3
**All the exclusion criteria, see Table 3.
4.1.2.2 Cross-sectional study. According to the international project guidelines, each participating centre collected heterogeneous samples. Recommended characteristics included a minimum of 300 older respondents, representing both people who were unhealthy and healthy, male and female, and with ages ranging from 60–70 years, 70–80 years, and 80 years and over (17). In this thesis, healthy respondents were defined as those not receiving community health services (home care or living at a nursing home). The unhealthy respondents were defined as those receiving help from these services. In collaboration with SN, the proportion of older persons aged 60 years and over living in the major geographic regions was reviewed, with reference also to age and gender within these regions. A randomized stratified sample was then drawn from SN. Because registration of community health care was not available from national registers, we utilized 20 randomized municipalities forming a part of another large national research project. These municipalities were contacted with the aim of obtaining updated lists of older adults receiving community health care or living in nursing homes. From these lists, stratified samples were then obtained from each municipality in relation to age, gender, need for community health care and community size. Because very few of the randomized municipalities agreed to participate, newly recruited proportional samples were again drawn. SN administered the postal survey and conducted all personal interviews. Municipalities were responsible for organizing their own interviewing teams. Interviewers received payments of 32 Euros. SN drew a sample of 802 older adults for the postal survey, of which 47 (5.9%) had unknown addresses, lived abroad, or had died. The questionnaire was sent to 755 older adults living at home. After one reminder, the final response rate was 401 (53%). For the sample participating in personal interviews (n = 89), no record was kept of those persons who were asked and subsequently refused to take part in the study.
*It was difficult to recruit municipalities to participate, further described in appendix 1.*
4.2 Measurements

4.2.1 Selection and overview of measurements used

With respect to the international guidelines of the WHOQoL-Group project, the WHOQoL-Old, a specific questionnaire packet was recommended. These measurements were chosen to validate the WHOQoL-Old module (see Table 4).

Table 4. Overview of the questionnaire in the study

<table>
<thead>
<tr>
<th>Measurements/items used in the questionnaire package</th>
<th>Issues covered</th>
<th>Order</th>
<th>Measurements / items</th>
<th>Paper II</th>
<th>Paper III</th>
<th>Paper IV</th>
<th>International study *</th>
</tr>
</thead>
<tbody>
<tr>
<td>QoL in general</td>
<td></td>
<td>3</td>
<td>WHOQoL-Bref</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>QoL among older adults</td>
<td></td>
<td>2</td>
<td>WHOQoL-Old</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td></td>
<td>6</td>
<td>GDS-15</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Health and functional status</td>
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<td>7</td>
<td>Sf-12</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>Health **</td>
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<td>Single items</td>
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<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Attitude to Ageing</td>
<td></td>
<td>4</td>
<td>ATA</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Well-being</td>
<td></td>
<td>9</td>
<td>WHO-5***</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Depression and anxiety****</td>
<td></td>
<td>5</td>
<td>HSCL-25****</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Used in all the centres or in some of the centres. ** Additional questions in the Norwegian sample. Not all of them were used in this thesis. See Table 6. *** WHO-5 = WHO-Five Well-being Index. **** HSCL-25 = Hopkins Symptoms Checklist-25, which was only used in the Norwegian study. Not used in this thesis.

For the purpose of this thesis, the following measurements were used and are further described below: WHOQoL-Old, WHOQoL-Bref, SF-12, Geriatric Depression Scale (GSD-15), and various assessments of self-reported health and sociodemographic questions. All the measurements were used in Papers II, III and IV, except SF-12, which
was used only in Papers III and IV. Additionally, the questionnaire packets included study information and the measurements: Attitude to Ageing, WHO-5 and Hopkins Symptom Check List. In Table 4, all measurements are listed based on originality order.

**WHOQoL-Old.**

The WHOQoL-Old is conceived as an add-on module to be used with the WHOQoL-100 or -Bref (11,12,15,88). The module measures six content areas (facets) that were identified as important cross-culturally to older adults and are not present in the existing WHOQoL-100 or WHOQoL-Bref. Facets of WHOQoL-Old include: Sensory Abilities; Autonomy; Past, Present and Future Activities; Social Participation; Death and Dying; and Intimacy, which are further defined below. Each facet contains four items (see Table 5). Each item is scored on a Likert scale ranging from 1 to 5, with response categories assessing “how much”, “how complex”, “how satisfied, happy or good” or “how often” the person felt in the previous two weeks. Following reversal of negative items, scores are scaled in a positive direction, with higher scores indicating greater QoL. Cronbach’s alpha was 0.89 in both cohorts. According to the WHOQoL-Group, facets are considered as sub-categories of the major domains (Physical Psychological Social Relations Environment, see Table 6) (92).

**Autonomy.** This facet examines issues of independence, control (both in general and relating to income), freedom of choice, the ability to make decisions and the impact that these factors have on an individual’s QoL. This facet also addresses the notion that some older adults may have less independence or control over their day-to-day living, owing to cognitive or physical decline. The feelings that may accompany lost abilities in later life are also explored.

This facet also addresses issues of dignity. Responses to this question could be related to increased dependence on others for self-care and activities of daily living or, in a broader sense, related to attitudes in society towards older adults.

**Past, Present and Future Activities.** This facet examines recognition for past achievements, and satisfaction with achievements across the lifespan. It provides an opportunity for life review, while recognising that a person may also be contributing to
society in later life through various forms of alternative work and voluntary activities. However, achievements are not defined specifically, and it is acknowledged that significant events (e.g., parenting, grandparenting and successful adaptation to retirement) may also be considered as significant achievements for an older adult. The facet also asks about the opportunities that a person has for reminiscing with others about the past, and about their thoughts and feelings about the future. It also encourages the individual to consider how others regard their achievements, which may also have a significant impact on a person’s own interpretation of their successes in life.

**Social Participation.** This facet examines the person’s views about their use of time, and whether they are able to engage in activities that are meaningful to them. Some older persons may have reduced control over the daily activities they are involved in. The notion of structured time is also examined, as well as satisfaction with activity levels in later life. It is anticipated that many older adults will have retired from working life. This facet addresses the changes in structured time that would accompany this, and how this might impact QoL. It also examines the opportunities and abilities of the individual to continue to actively participate in activities and to feel involved in the community. However, this facet recognises that having additional free time may be positive or negative, depending on individual circumstance.

**Death and Dying.** This facet explores attitudes toward death and understanding death as inevitable, acceptable and part of the scheme of things, as well as coming to terms with and finding meaning in death. For some people, death can be viewed positively, it can represent a move from life on earth to a better life or the afterlife, or it can be seen as a relief from toil, distress, pain, or grief at the end of biological existence. Its negative aspects include excessive fear of death and fear about losing control over dying. This facet also considers the person's attitude and feelings towards the death of others who are close to them. Notions of untimely death, for example the death of a person in an accident, and the shock that others suffer in such an event are also accounted for here. A person may have more difficulty finding meaning in such an instance and may view it as unacceptable or unfair.
Table 5. Facets and items of WHOQoL-Old

<table>
<thead>
<tr>
<th>Sensory Abilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>F251 Impairments to senses affect daily life</td>
</tr>
<tr>
<td>F252 Rate sensory functioning</td>
</tr>
<tr>
<td>F253 Loss of sensory abilities affects participation in activities</td>
</tr>
<tr>
<td>F254 Problems with sensory functioning affect ability to interact</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Autonomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>F261 Freedom to make own decisions</td>
</tr>
<tr>
<td>F262 Feel in control of your future</td>
</tr>
<tr>
<td>F263 Able to do things you’d like to</td>
</tr>
<tr>
<td>F264 People around you are respectful of your freedom</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Past, Present, and Future Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>F271 Happy with things to look forward to</td>
</tr>
<tr>
<td>F273 Satisfied with opportunities to continue achieving</td>
</tr>
<tr>
<td>F274 Received the recognition you deserve in life</td>
</tr>
<tr>
<td>F275 Satisfied with what you’ve achieved in life</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F281 Satisfied with the way you use your time</td>
</tr>
<tr>
<td>F282 Satisfied with level of activity</td>
</tr>
<tr>
<td>F284 Have enough to do each day</td>
</tr>
<tr>
<td>F287 Satisfied with opportunity to participate in community</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Death and Dying</th>
</tr>
</thead>
<tbody>
<tr>
<td>F292 Concerned about the way you will die</td>
</tr>
<tr>
<td>F293 Afraid of not being able to control death</td>
</tr>
<tr>
<td>F294 Scared of dying</td>
</tr>
<tr>
<td>F295 Fear pain before death</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intimacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>F302 Feel a sense of companionship in life</td>
</tr>
<tr>
<td>F303 Experience love in your life</td>
</tr>
<tr>
<td>F304 Opportunities to love</td>
</tr>
<tr>
<td>F307 Opportunities to be loved</td>
</tr>
</tbody>
</table>
**Intimacy** This facet explores individuals’ opportunities for physical and emotional closeness with a partner, or one other close person, with whom they can share intimacy more than with any other. It examines the notion that in later life sexual relationships may become less important. However, intimate and close relationships may still be considered an important factor of life. This facet recognises that some people may lack intimacy in their lives despite having a partner, and assesses the impact this can have on individuals’ QoL. It also assesses a person’s satisfaction with the level of intimacy in his or her life, recognising that this may not be important to everyone.

**WHOQoL-Bref**

WHOQoL-Bref items are organized into four domains: Physical (seven items), Psychological (six items), Social Relationships (three items) and Environment (eight items) (15,88). Two additional items assess overall QoL and health satisfaction. WHOQoL-Bref is the short version of WHOQoL-100, as one item from each of the WHOQoL-100 facets makes up all of the WHOQoL-Bref items (24 items). After analysis of the WHOQoL-100 (six domains: Physical, Psychological, Independence, Social Relations, Environment and Spirituality), the WHOQoL-Group decided to merge the Physical and Independence, as well as Psychological and Spirituality domains, thereby creating four domains in the WHOQoL-Bref (16) (see Table 6). All items were rated on a five point scale (88). Responses were scored on a Likert scale from 1 (not at all/very dissatisfied) to 5 (extremely/completely/very satisfied), with response categories including “how much”, “how available”, “have enough” or “how satisfied” the person felt in the previous two weeks. WHOQoL-Bref can be used as a profile score or a total score. It is validated in different cultures (93-96), including Norwegian samples (97-99). In this thesis, Cronbach’s alpha was 0.93 for the healthy cohort and 0.91 for the sick cohort (see Appendix 1).
Table 6. Domains and items of WHOQoL-Bref based on the WHOQoL-100 domains

<table>
<thead>
<tr>
<th>Domain</th>
<th>Items incorporated within domains</th>
<th>Domain</th>
<th>Facets incorporated within domains #</th>
</tr>
</thead>
</table>
| Physical *   | Pain prevents you from doing what you need to do  
Need any medical treatment  
Enough energy for everyday life  
Able to get around  
Satisfied with sleep  
Satisfied with ability to perform ADL  
Satisfied with capacity for work | Physical     | Energy and fatigue  
Pain and discomfort  
Sleep and rest |
| Psychological ** | How much do you enjoy life  
Feel life to be meaningful  
Able to concentrate  
Accept bodily appearance  
Satisfied with yourself  
How often do you have negative feelings | Psychological | Positive feelings  
Self-esteem  
Thinking, learning, memory and concentration  
Bodily image and appearance  
Negative feelings |
|              |                                                                                                  | Spirituality | Religion/Spirituality/Personal beliefs                 |
Table 6. Domains and .... continued

<table>
<thead>
<tr>
<th>Social Relations</th>
<th>Satisfied with personal relationships</th>
<th>Social Relations</th>
<th>Personal relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Satisfied with sex life</td>
<td></td>
<td>Sexual activity</td>
</tr>
<tr>
<td></td>
<td>Satisfied with support from friends</td>
<td></td>
<td>Social support</td>
</tr>
<tr>
<td>Environment</td>
<td>Feel safe in your daily life</td>
<td>Environment</td>
<td>Freedom, physical safety and security</td>
</tr>
<tr>
<td></td>
<td>How healthy is your physical environment</td>
<td></td>
<td>Physical environment</td>
</tr>
<tr>
<td></td>
<td>Enough money to meet needs</td>
<td></td>
<td>Financial resources</td>
</tr>
<tr>
<td></td>
<td>Available information</td>
<td></td>
<td>Opportunities for acquiring new information and skills</td>
</tr>
<tr>
<td></td>
<td>Opportunity for leisure activities</td>
<td></td>
<td>Participation in and opportunities for recreation/leisure</td>
</tr>
<tr>
<td></td>
<td>Satisfied with conditions of living place</td>
<td></td>
<td>Home environment</td>
</tr>
<tr>
<td></td>
<td>Satisfied with access to health services</td>
<td></td>
<td>Health and social care: accessibility and quality</td>
</tr>
<tr>
<td></td>
<td>Satisfied with transport</td>
<td></td>
<td>Transport</td>
</tr>
<tr>
<td>Overall QoL</td>
<td>General health</td>
<td>Overall QoL</td>
<td>General health</td>
</tr>
</tbody>
</table>

# Facets incorporated within domains are used in the WHOQoL-100, because there are too many items to describe in this table.

Merging of the domains * physical and independence and ** the psychological and spirituality.

Geriatric Depression Scale (GDS-15).

Depression symptoms were measured using GDS-15 (100), which is tailored for use with older adults. Each of the 15 items was scored dichotomously (yes/no) with reference to the past two weeks. Ten items indicated the presence of depression when answered positively, while the other five items indicated depression when answered negatively. The
scores were then summed to give a total of 0–15, with a score of 5 or more indicating probable depression. The present time frame was used for the measure. GDS-15 was validated in different cultures, including a Norwegian sample (101). Cronbach’s alpha was 0.74 for the healthy cohort and 0.85 for the sick cohort.

In Papers III and IV, the GDS-15 variable was transformed. Because 88.7% of the healthy cohort (Paper III) and 59% of the sick cohort (Paper IV) reported 0–4 symptoms (non-normal distribution), and the cut-off value for probable depression is five symptoms, the scores were recoded to form a 6-point scale. On this scale the values 0–4 referred to the corresponding number of symptoms, and the value 5 referred to 5–15 symptoms. This scale produced a more continuous scale with a normal data distribution by avoiding a long right tail (see Appendix 1).

The Medical Outcome Study 12 Items Short Form Health Survey (SF-12).

SF-12 is a well-known measurement that was developed for assessing a health-related perspective (102,103) and is considered an assessment of health (1). Only the SF-12 subscale of physical function (PCS12) was used in this thesis (Papers II and IV). PCS12 includes items pertaining to bodily pain, general health, social functioning and vitality. Scores were weighted and summed, with higher scores indicating higher physical function (103-105). The time frame assessed was the prior four weeks. SF-12 was validated in different cultures, including a Norwegian sample (106). Cronbach’s alpha was 0.66 for the healthy cohort and 0.71 for the sick cohort (see Appendix 1).

Sociodemographic and self-reported health questions

Table 7 shows the sociodemographic and self-reported health questions used in this thesis (see Appendix 1).
Table 7. Sociodemographic and self-reported health questions

<table>
<thead>
<tr>
<th>Sociodemographic questions</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marital status</td>
</tr>
<tr>
<td></td>
<td>Living arrangements</td>
</tr>
<tr>
<td></td>
<td>Help on a regular basis</td>
</tr>
<tr>
<td></td>
<td>Education level</td>
</tr>
<tr>
<td></td>
<td>Financial situation</td>
</tr>
<tr>
<td>Health questions</td>
<td>Current health</td>
</tr>
<tr>
<td></td>
<td>Medical conditions affecting your QoL</td>
</tr>
<tr>
<td></td>
<td>Use of medication</td>
</tr>
</tbody>
</table>

4.3 Ethical considerations and funding

The study was approved by the Norwegian National Ethical Committee of Medical Research. Data was kept anonymous by the researcher. According to general routines in SN, approbation of the study was granted by the Norwegian Social Science Data Services. Written information to the respondents (survey-respondents and interviewee) was considered according to SN rules as an informed consent. The interviewers were informed by written instructions.

This thesis was funded by the European Commission Fifth Framework, QLRT-2000-00320 and Diakonova University College (known earlier as Menighetssøsterhjemmets University College).

4.4 Data analysis and statistical methodology

Analysis of the various papers comprising this thesis will be presented separately. Accordingly, in Paper I the specific criteria for analysing will be described. In Papers II, III and IV, different statistical techniques have been performed using the SPSS (107) and Amos (108) software programmes. First, some common aspects of the cross-sectional
analysis will be described. The data file in the cross-sectional study (Papers II, III and IV) was prepared for registration based on a codebook for each measurement form, in collaboration with the international study centre (17,109). According to these recommendations, when more than 20% of responses were missing, the data were discarded. When one item was missing, the mean within the same facet was substituted. Where more than two items were missing from the facet, the facet was not calculated (88). Other missing values were replaced by the mean value within the same subscale (88,109,110). Data were analysed by the statistical software SPSS (107) and AMOS (108).

**Paper I**

Data collection of the review, as described before, was analysed following criteria considered important in instrument evaluation, as previously discussed by several authors (8,23,24,80,81,111-120). These criteria include: evidence given for an underlying conceptual model in the study, concept definitions, internal consistency, reproducibility, responsiveness, floor and ceiling effects, content and construct validity, interpretability and acceptability. Special considerations related to domains covered, age-specific areas, cognitive status, administration and instrument adaptation were also extracted. The Wilson and Cleary Model was chosen to categorise measurements and domain areas described in the review (27). As Wilson and Cleary in their model depict relationships among biological and physiological variables, symptom status, functional status, general health perceptions and overall QoL (see levels 1 to 5 in Figure 1), the measurement domain in the reviewed studies were categorised after WCM.

**Paper II**

Descriptive statistics for the module items, including mean, standard deviation, score range, skewness and kurtosis, were investigated. Ceiling and floor effects were explored with frequency distributions. The internal consistency of the WHOQoL-Old facets was assessed using Cronbach’s alpha. Construct validity was examined by correlations, multiple regression analyses and exploratory (EFA) and confirmatory (CFA) factor analyses. These statistical methods have been reported in other WHOQoL-Group publications (11,121-123). Multiple regression analysis was performed to determine the WHOQoL-Old facets that best predicted overall QoL, health satisfaction and generic QoL
(WHOQoL-Bref total score). An EFA was performed for both groups with oblique rotation (124,125). To check the adequacy of the data for EFA, the Kaiser–Meyer–Olkin (KMO) measure of adequacy and Bartlett’s test of sphericity were performed. The value of KMO was high (postal-group 0.88, interview-group 0.78), meeting the criteria of the 0.5 threshold (124). The Bartlett’s test statistic was large in both the postal-group ($\chi^2 = 4520.2; P < 0.001$) and the interview-group ($\chi^2 = 1237.1; P < 0.001$), suggesting that the population correlation matrix was not an identity matrix (124). Factor loading of 0.40 or above was interpreted as salient (124,126). The CFA was conducted to explore the fit of the original six-facet model with the maximum likelihood method. Pearson’s $r$ correlation coefficients were used to analyse module inter-item and item-facet correlations, as well as convergent and external validities.

**Paper III**

Descriptive statistics were investigated to assess frequency distribution and sample characteristics. Zero-order correlations were performed to explore the bivariate relations between the variables. A path analysis was performed by means of the Structural Equation Modelling (SEM) programme (108). This analysis was utilised to test the multivariate relations between variables corresponding to the theoretical model based on the WCM, as with previous studies (36,127). Compared with standard regression methods, SEM is confirmatory and theory driven rather than exploratory. It also provides a more precise description of relations among multiple independent predictor variables, including direct and indirect effects (128). Amos (2006) offers a range of goodness-of-fit indices, including chi-square, the comparative fit index (CFI) and the root mean square error approximation (RMSEA). Chi-square tests the significance of the discrepancy between the original sample correlation matrix and the population correlation matrix estimated from the model. It is dependent on the sample size (128). The CFI takes sample size into account, with a value ranging from 0 to 1.00 that is derived from comparison of the hypothesised model with the independent model (129,130). The RMSEA estimates how well the model would fit the sample if optimal parameters were available (131), with values below .05 and .08 being indicative of good and reasonable fits, respectively (130). The estimation method used was maximum likelihood, which makes estimates based on maximising the probability (likelihood) that the observed covariances are drawn from a population.
assumed to be the same as that reflected in the coefficient estimates (132). This study applied path analysis (SEM), which tests whether the pre-specified model is adequate to fit the observed data. This does not indicate that the model is correct. Rather, it indicates that there is insufficient evidence against the model (1). While SEM is referred to as causal modelling, it must also be guided by the use of theory (133,134). Causality presupposes association between variables, temporal precedence between the independent and dependent variables (31), and a non-spurious relationship between the independent and dependent variables. As in other cross-sectional studies (135), absence of the temporal-precedence condition occurred in our study.

Skewness and kurtosis were reported to indicate the normality of the data distribution. A skewness value more than twice its standard error is indicative of a departure from symmetry (134). The kurtosis score refers to the degree to which scores cluster at distribution tails (124). A lack of multivariate normality could lead to biased results (136). However, the impact of a departure from zero skewness and kurtosis diminishes in large samples (134,137).

**Paper IV**

Descriptive statistics were investigated in order to assess frequency distribution and sample characteristics. Zero-order correlations were performed for preliminary exploring the bi-variate relations between the variables intended to be used in the theoretical model. A path analysis was performed by means of a structural equation model (SEM) to test the multivariate relations between the variables corresponding to the theoretical model based on WCM.

Compared with standard regression methods, SEM is confirmatory and theory-driven rather than exploratory. It also provides a more precise description of the relation between multiple independent predictor variables, including direct and indirect effects of predictor variables (128), and is seen as suitable for investigating mediator effects (138-140). The SEM programme Amos (2006) offers a range of goodness of fit indices, including chi-square, the comparative fit index (CFI) and the root mean square error approximation (RMSEA). Chi-square tests the significance of the discrepancy between the original sample correlation matrix and the population correlation matrix estimated from the model and it is dependent on the sample size (128). The CFI takes sample size into
account, with the value range of 0 to 1.00 derived from a comparison of the hypothesized model with the independent model (129,130). The RMSEA estimates how well the model would fit the sample if optimal parameters were available (131), with values below .05 and .08 respectively being indicative of good and reasonable fit (130). The estimation method was maximum likelihood, which makes estimates based on maximizing the probability (likelihood) that the observed covariances are drawn from a population assumed to be the same as that reflected in the coefficient estimates (132). While the present sample may be considered as small (Kline, 2005), a considerable amount of previous studies have applied SEM on samples of fewer than 100 (MacCallum & Austin, 2000). In fact, there is little consensus on the recommended minimum sample size for SEM (141), and this is dependent upon the complexity of the model (142). As the present model is rather simple, with a limited number of observed (not latent) variables, a path analysis by means of SEM may be utilised.

Skewness and kurtosis were reported to indicate normality of data distribution. A skewness value more than twice its standard error is indicative of a departure from symmetry (107,134). A kurtosis score refers to the degree to which scores cluster in the tails of the distribution (134). The lack of normal distribution makes it more difficult to obtain results from multivariate analyses (136). However, the impact of a departure from zero skewness and kurtosis diminishes in large samples (134,137).
5.0 RESULTS OF THE STUDY

5.1 Main results and summary of the papers

5.1.1 Main results of Paper I

In this paper, we summarised the results of a narrative literature review of empirical studies investigating the conceptualization and measurement of QoL among older adults from 1994 to 2006. Of the 47 studies reviewed, a great majority (87%) lacked a conceptual model, and a third lacked any formal definition of QoL. Almost two-thirds of the studies focused on QoL, where HRQoL was used as an overlapping term. A total of 40 different measurements were reported in the 47 reviewed papers, with 34 instruments being applied in single studies and six instruments being used in more than one study.

Special methodological considerations given to domain coverage, age-specific areas, cognitive status, administration method and instrument adaptation were reviewed. Of these studies, 55% did not provide any evidence of age-specific content considerations given to the assessment of QoL among older adults. Also, a large majority (89%) of the studies did not discuss any special considerations given to instrument adaptation. Evidence for sensory changes in relation to vision and hearing impairment were cited only once.

Internal consistency and reproducibility were reported for 14 of the 40 measurements utilised. Of those reporting construct validity, 16 measurements provided evidence of convergent validity, 34 of discriminate validity, and 10 of factor analysis. Face-content validity was assessed in 9 measurements from six studies. Evidence of acceptability was assessed by response rate, missing values, removal of items based on focus work, and clarification given that the older adults were too frail or cognitively impaired to answer items.

5.1.2 Characteristics of the respondents in the cross-sectional study

There were sociodemographic differences between the healthy (not receiving community health care) and sick (receiving community health care) groups in the cross-sectional study (see Table 8). The average age of the healthy respondents was 75.1 years, where 54.1% were women, 59.4% had a partner, none lived in institutions, 39% had higher education, 82.8% considered themselves as healthy, and 45.9% reported health conditions
Table 8. Sample characteristics of the participants in the cross-sectional study

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Healthy group N (%)</th>
<th>Sick group N (%)</th>
<th>95% CI\textsuperscript{a,b}</th>
<th>$\chi^2$ value</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean (years)</td>
<td>75.1</td>
<td>78.6</td>
<td>-5.31-1.66 \textsuperscript{a,b}</td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td>Range (years)</td>
<td>60–91</td>
<td>61–90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>176 (45)</td>
<td>24 (27)</td>
<td>9.49, d.f. = 1</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>217 (55)</td>
<td>65 (73)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With partner</td>
<td>238 (62)</td>
<td>25 (28)</td>
<td>32.67, d.f. = 1</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Without partner</td>
<td>149 (39)</td>
<td>64 (72)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>242 (62)</td>
<td>61 (71)</td>
<td>3.74, d.f. = 2</td>
<td>0.154</td>
<td></td>
</tr>
<tr>
<td>Higher</td>
<td>88 (23)</td>
<td>18 (21)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>61 (16)</td>
<td>7 (8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living arrangements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living at home</td>
<td>389 (98)</td>
<td>73 (82)</td>
<td>61.28, d.f. = 1</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Living in institution</td>
<td>2 (1)</td>
<td>16 (18)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current health condition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy</td>
<td>332 (88)</td>
<td>45 (53)</td>
<td>55.85, d.f. = 1</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Unhealthy</td>
<td>46 (12)</td>
<td>40 (47)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health conditions affecting QoL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>184 (48)</td>
<td>72 (84)</td>
<td>35.30, d.f. = 1</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>196 (52)</td>
<td>14 (16)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{a} CI, confidence interval for differences between postal-group and interview-group by age

\textsuperscript{b} p level, Student’s $t$ test for differences between postal-group and interview-group by age

that affected their QoL. The sick respondents were older (mean age 78.6 years), included more females (73% women), fewer of them had partners (28.1%), some were institutionalised (5.6%), more had higher education (29%), fewer assessed themselves as
frequently healthy (consider themselves as unhealthy, 50.2%), and more reported having health conditions affecting their QoL (80.9%).

5.1.3 Main results of Paper II

Paper II aimed to examine the validity and reliability of the Norwegian WHOQoL-Old six-facet, 24-item module that was designed for assessing QoL among healthy and sick older adults.

Results showed partly good scaling properties for both groups. Data were not normally distributed. Skewed responses were demonstrated for all WHOQoL-Old factors in both groups. Kolmogorov–Smirnov values, with a Lillifors significance correction, were 0.18 to 0.35 ($P < 0.000$), in the healthy group, and 0.17–0.38 ($P < 0.000$), in the sick group. One ceiling effect and six floor effects were found together for both of the groups. There were very few missing responses in either group. The healthy group, assessed by postal-survey, generally had more missing answers than the sick group, who were assessed by face-to-face interviews.

The conceptual structure of WHOQoL-Old was partially supported by showing that correlation, multivariate and factor analyses partly confirmed the relevance of individual items and factors in both groups. All items correlated significantly higher with their original facets almost half of these items correlated with other facets in both groups.

Exploratory factor analysis of the WHOQoL-Old resulted in a five-factor solution (eigenvalues > 1). This explains values of 65% and 67% obtained for the cumulative variance in five of the six originally operationalised facets in the healthy and sick groups, respectively. The most conceptually clear facets were Death and Dying, for both groups, and Sensory Abilities in the sick group. Confirmatory factor analyses demonstrated a model with good fit, but with high covariance between the factors.

Exploring the concurrent validity in terms of discriminant correlations of the WHOQoL-Old module and GDS–15 total scores, the WHOQoL-Old total score and facets were significantly negatively correlated with the GDS–15 total score in both groups.

Multiple regression analyses of the WHOQoL-Old facets with two overall questions and overall WHOQoL-Bref gave support to the different importance of these facets among the healthy and unhealthy.
The measurement showed internal consistency by yielding a facet Cronbach’s Alpha value that ranged from 0.86 (Intimacy and Death and Dying) to 0.69 (Past, Present and Future Activities) for the healthy group, and from 0.87 (Sensory Abilities) to 0.69 (Past, Present and Future Activities) for the sick group.

5.1.4 Main results of Paper III

The aim of Paper III was to investigate how the relationships among depression symptoms, physical function, health satisfaction, age and environment may predict QoL in a model based on the WCM among healthy older adults. The overall model provided empirical evidence for linkages in the WCM (Figure 4). Results showed that related concepts were linked together in a conceptual model. This facilitated interpretation of the meaning and relationship patterns among variables used, which gave support to construct validity. Results confirmed hypotheses by showing that QoL is likely to be manifested by direct effects of environmental conditions, health satisfaction and age. In addition, environmental conditions and age had indirect effects on QoL, in particular via depression. Environment had both a significant direct and an indirect effect on QoL. An indirect effect of environment on QoL was shown, with depression, physical function and perceived health as mediators. There was only minor evidence for age predicting QoL among healthy older adults.
5.1.5 Main results of Paper IV

In Paper IV, the specific aim was to explore how depression, physical function, health satisfaction, age and environment predict QoL in a conceptual model based on the WCM among sick older adults. A path analysis (SEM) showed that the overall model provided empirical evidence for linkages in the WCM. QoL was manifested by significant direct effects of environmental conditions and health satisfaction, which gave some support to construct validity (see Figure 5). In addition, environmental conditions had indirect effects on QoL, in particular via depression and health satisfaction. There was no evidence for age predicting QoL among sick older adults.
5.1.6 Summary of results

In summary, the results of Paper I showed no consensus in how to conceptualise and measure QoL among older adults. Furthermore, no evidence was found for the agreement of special considerations given to measurement adaptation for use among older adults. Results confirmed the limited use of definitions and conceptual models in QoL research among older adults. These results give support to the importance of exploring the validity of the WHOQoL-Old module based on a definition of QoL and a conceptual model.

Upon critically examining the basic structure of the measurement, the conceptual structure of WHOQoL-Old was partially supported in Paper II. This work supported the
content validity that has been confirmed by the rigorous developmental procedure of the WHOQoL-Old module, as well as the judgement by experts (in the analysing process and focus groups) and older adults (focus groups and pilot) in the developmental process. This is beyond, although tightly connected to, this thesis.

The results partially confirmed the three aspects of construct validity: convergent validity, known-groups validity and discriminate validity. Construct validity was supported by confirmation of the theory-based hypothesis and research questions in Papers III and IV. Furthermore, as aspects of construct validity involve forming a model, which describes the constructs being assessed and postulates their relationships, construct validity was confirmed. This shows that testing of the theoretical models based on WCM demonstrated that data fitted the model among older adults not receiving community health care (sick group in Paper III) and among older adults not receiving community health care (healthy group in Paper IV).

Convergent validity (Paper II) was strengthened by showing that the most conceptually clear facets were Death and Dying for both groups, and Sensory Abilities in the sick group. These results were confirmed by demonstrating that the items within these two facets correlated only on their original facet. Furthermore, both facets had a lower correlation with other facets, the WHOQoL-Old total score, the WHOQoL-Bref total score and with overall QoL. Further strengths of convergent validity were shown by the fact that all items in the Sensory Abilities, Social Participation and Intimacy facets loaded only on the factor upon which they were originally operationalised. Multicollinearity of eight items was shown in both groups. Thus, different items were cross-loaded in the two groups.

Known-groups validation was shown by different significant contributions using multiple regression analyses among the two groups (healthy and sick, Paper II). Only the Social Participation facet had a significant contribution to the WHOQoL-Bref total score in both groups. Differences between the two groups were also shown by differences in the results when testing conceptual models based on the WCM (Papers III and IV).

Concurrent validity demonstrated that the WHOQoL-Old module total and facets were significantly negatively correlated with the GDS–15 total score in both groups (Paper II). Moreover, the WCM (Papers III and IV) confirmed the empirical relationship between QoL and depressive symptoms.
6.0 GENERAL DISCUSSION

All measurements should satisfy basic properties (e.g., validity and reliability) if they are to be useful in patient care, research and policy making. Validity refers to the degree to which a measurement determines what it is supposed to measure, based upon a continual process (25). This is a question of degree of validity rather than a lack or proof of validity. The WHOQoL-Old module has a certain degree of validity among the group of older adults in Norway. However, the recruiting processes made it difficult to assess sick older adults and the oldest population. Thus, the gender distribution is in accordance with the Norwegian population (see Appendix 1).

6.1 Content validity

Content validity is based on judgement more than objective methods. This evaluation analyses items to see if they adequately represent the content of a concept (25), which demands a definition of the investigated concept. Definitions of QoL are controversial, as different measurements are atheoretical and/or use different definitions, often without a specific QoL model as quoted by others and the results of Paper 1 (1). This is also the case in the WHOQoL work. As shown in the reviewed studies in Paper I, in the absence of any agreed formal definitions, most researchers circumvent the issue of theory or definition by just describing the aspects that were included in the QoL measurement that they utilised. A theoretical definition should serve as a guideline for the operationalisation of the concept investigated (25). A precise definition of QoL and its relation to a theoretical conceptualisation, as groundwork for the operationalisation of specific items for measurement, has the advantage of communicating exactly what the terms means. In light of this, one can ask if the WHOQoL-Group’s definition is precise enough to clarify the operationalisation of QoL among older adults. According to the WHOQoL-Group (143), their definition incorporates in a complex way the person’s physical health, psychological state, level of independence, social relationships, personal beliefs and their relationships to salient features of the environment. One can question if the WHOQoL-Old module alone embraces all of these QoL aspects among older adults. However, the domain structure of WHOQoL-Bref and the facets of the WHOQoL-Old module are intended for use together.
Thus, this perhaps provides support for the core elements within the definition. The WHOQoL-Old module facets are considered to increase the comprehensibility of specific WHOQoL-Bref domains relevant to older adults, in particular. Specifically, factors related to the Physical domain (Sensory Abilities facet), Psychological (Autonomy facet; Past, Present and Future Activities facet; Death and Dying facet) and Social Relations (Social Relations facet, Intimacy facet) (unpublished reports in the WHOQoL-Old project). The good content validities of WHOQoL-100 and WHOQoL-Bref (before WHOQoL-Old was developed) have been supported by Bowling and Ebrahim (81).

In addition, older Norwegian adults rated sensory abilities, activities of daily living, mobility, and health and home environment as the most important QoL factors in the pilot study of WHOQoL-Old (144). An in-depth interview among older adults in England reported similar factors such as social relations, home, neighbourhood, psychological factors, independent activities health, social roles, finances and independence (57) as being important. Previously, Farquhar (10) found that family and activities were mentioned most often among older adults living at home in two contrasting areas of south east England, while health was prioritised among the older population. These studies confirmed different factors that were important to QoL among older adults. Results in Paper I showed that only 1/5 of the reviewed studies discussed any special considerations given to instrument adaptation among older adults. These points justify the need for a valid measurement emphasising what QoL is among older adults. For example, among the studies reviewed in Paper I, sensory abilities in term of vision and hearing impairment were emphasised only once. On the other hand, the facet of Sensory Abilities, which was found by statistical tests to be one of the conceptually clearest facets in the sick group (Paper II), was mentioned by the respondents in the focus groups (11). Belief that the WHOQoL-Old development process (13,16,17,87) adapted a proper measurement for use among older adults by, for example, emphasizing lay views, conducting focus groups with healthy and sick participants 60 years and older and focusing on what means QoL to them, may strengthen the content validity of the measurement. During the developmental process, both the older adults themselves and experts have investigated the WHOQoL-Old module, confirming the content validity of the WHOQoL-Old module.
6.2 Construct validity

Another interesting perspective in the WHOQoL-Group’s definition is the focus on how the respondents perceived QoL and not the measuring of detailed symptoms, diseases, conditions, disabilities or functions, as objectively judged. The focus is rather on the subjective perception of perceived disease effects, health and interventions on the respondents’ QoL. However, the concepts of symptoms, function and health are related to the concepts of QoL. Consequently, in Papers III and IV, a conceptual model was chosen to guide the understanding of relationships between depressive symptoms, physical function, health satisfaction, age, environment and their effects on QoL. This was chosen to explore construct validity by attempting to investigate the extent to which a measure represents all facets of a given concept in relation to other concepts (1,25). In both studies (Papers III and IV) there was no evidence against the data fitting the theoretical models based on WCM. The WCM made it possible to identify hypothesis and research questions in Papers III and IV by relating concepts with each other. On the other hand, the WCM was considered as a model linking variables together with QoL (27).

In this thesis, the WCM was also used in Paper I to categorise items or domains claimed by the authors of the empirical studies to be factors of QoL. Thus, the model provided a conceptual basis for understanding what factors impact QoL. On the other hand, Bredow and Person (41) considered the WCM as a middle range theory of HRQoL that is suitable in nursing research. They argued that a variety of measurements have been developed to operationalise the WCM, stating that nurses could understand the impact of a condition on their patients or evaluate nursing efforts by using measurements based on the middle range theory of HRQoL. However, these authors did admit that HRQoL is an ambiguous concept and is difficult to define; it is used interchangeably with other concepts, such as QoL, subjective health status or functional status. Furthermore, Wilson and Cleary (27) refer to their model as a conceptualization of HRQoL/health. They claimed that they used the terms “health” and “HRQoL” interchangeably. At the same time, they argue that these two concepts can refer to different concepts. This interchangeable practice may confuse the use of their model and underline the lack of one common and well-known conceptual model guiding QoL research.

However, the WCM presentation involves the integration of a biomedical focus (e.g., pathological and physiological issues) and a psycho-social focus (e.g., psychological and
sociological issues) (27). The model predicts how the concept of QoL will function in relation to other related constructs, making it possible to test construct validity. The concepts used in the WCM are considered to be of importance in gerontological theory. Biological, physical, psychological and social factors are seen to change and are sometimes interpreted as losses in life among older adults, due to the ageing process and/or illness. For example, the decreased capacity of human systems for physical work and skilled motor performance, as well as the severity of sensory abilities to interact with other people, are common among older adults (60,83,145,146).

The direction of the arrows in the WCM (see Figure 1) was indicated by Wilson and Cleary (27) to be reversed to show reciprocal relationships. Experience of a poor QoL might influence a person’s perceived health, physical function and the amount of depressive symptoms. For example, poor environmental conditions might influence depressive symptoms directly or indirectly via QoL, perceived health and physical function. This complexity and our simplification of the model may limit our results. On the other hand, QoL is a complex concept that lacks a common and acceptable conceptual model. The use of WCM made a significant contribution toward construct validation of the WHOQoL-Old.

Moreover, older people’s successful adaption and satisfaction with the inevitably of mental and physical changes in old age can be explained by the Continuity Theory of normal ageing (147,148). The understanding of this theory as internal continuity, which involves the persistence of an inner structure (e.g., personality, coping) and external conditions that are elements of environmental conditions (e.g., skills, activity, roles, relationships and neighbourhood structure) (147), may underline the importance of the influence of characteristics from the individual and from the environment on the QoL, as appearing in the WCM.

Furthermore, the almost complete lack of significant effects from age (characteristics of the individual) on QoL in our empirical model might not reflect age, per se, but rather the operationalising characteristics of the individual at a particular age. Studies have found that increasing age is associated with a decreased QoL (149). A longitudinal study (74) reported no substantial relationship between age and the average change in QoL among older adults aged 70 and older, as well as in groups aged 18–54 and 55–69 (n = 1813). On the other hand, older adults reported that other factors were important to QoL, when
compared with younger adults. Examples include the following: transition from employment to retirement, transition from responsible duties to free time, integration into retired community activities, alterations in family and friends, issues of intimacy, sensory and physical changes, and spiritual concerns include death and dying (10,11,23,150).

Having another focus in old age is supportive of the Life Circle Theory of Erikson (151), which emphasises the importance of social context (e.g., culture, family, friends and environment) in developing as human beings. Also, the theory of gerotranscendence describes a shift of meta-perspective in ones life developing from a materialistic to a rationalistic perspective, enabling a movement from the actual body to a more spiritual reality. This is the main focus of the gerotranscendence theory (152). Despite suffering due to disease or having a poorer capacity due to the normal ageing process, older adults react with satisfaction with their life. The self is no longer defined in terms of externals, and thus may become freer from external constraints. This would enable oneself to focus more on the fundamentals of life. For example, the loss in old age of youthful good looks or the ability to perform activities of daily living (ADL) may force changes in personal identity (28).

6.2.1 Convergent validity

In supporting convergent validity, postulated QoL dimensions should correlate appreciably with all other dimensions that should, in theory, be related. In this study the conceptual structure of WHOQoL-Old was partially supported via the analysis of correlations. For both groups, all individual items correlated significantly higher with their original facets, although half or more of these items correlated with other facets. The highest inter-item correlations were found for Death and Dying and the lowest for Past, Present and Future Activities in both groups. These findings are partly supported by Winkler and colleagues in their German study (123). Here, they reported the highest inter-item correlations with Death and Dying and Intimacy, as well as the lowest correlations with Autonomy. In analyzing the international pooling of data, Power et al. (11) reported poor performance on items originally belonging to Social Participation, Death and Dying, Intimacy, and Past, Present and Future Activities during the developmental process of the WHOQoL-Old. Using regression analysis, with the total WHOQoL-Bref score as an
independent variable, the most conceptually clear facets were Death and Dying for both groups, as well as Sensory Abilities in the sick group.

Death and Dying (i.e., concerned about the way you will die, afraid of not being able to control death, scared of dying or fear of pain before death), the most conceptually clear facet, suggests that the issue is relevant among older adults, which is supported by Neimeyer and Werth (153). In reviewing literature concerning death among older adults, these authors reported that more significant attention has been given to the implications of ageing, such as finances and vast amounts of resources, compared to the psychological issues confronted near the end of life. They claimed that the importance of these psychological QoL issues cannot be overstated. Death concerns among older adults were found to be exacerbated by deteriorating physical health.

The importance of Sensory Abilities among older adults is well-known in the field of gerontology (9). Our results suggest that the facet is more conceptually clear among sick older adults than for healthy ones. One reason might be that the sick are feeling fatigue and lacking possibility to compensate for sensory problems. On the other hand, their sickness might demand greater sensory abilities. Moreover, the internal consistency (healthy: Cronbach’s Alpha = 0.85, sick: Cronbach’s Alpha = 0.87) strengthens the importance of this facet in both groups, which is supported by others in groups of older adults aged 65 years and over with no serious morbidity (Cronbach’s Alpha = 0.90) (154).

The weakness of convergent validity was shown by that all items from the Past, the fact Present and Future Activities for both groups cross-loaded with other factors. This was found to be the most conceptually unclear and weakest facet in both groups. In addition, the higher order CFA also showed multicollinearity for this factor. These findings, together with the borderline internal consistency of this facet (Cronbach’s Alpha = 0.69) (82), confirm problems with these four items (i.e., happy with things to look forward to, satisfied with opportunities to continue achieving, received the recognition you deserve in life, satisfied with what you have achieved in life) in our study. It is noted that our results differ from both the results of an Australian study showing good internal consistency of this facet (Cronbach’s Alpha = 0.75) (154) and the results of pooling the international data (Cronbach’s Alpha = 0.74). The meaning of the items in the Past, Present, and Future Activities and Autonomy facets could be interpreted and/or translated differently in
German, Australasian and Norwegian cultures (155). Translations followed the recommended procedure with forward – backward translation (12).

Furthermore, one might expect an add-on module, which was developed to assess special factors according to older adults and to correlate weakly with the main module. Our results showed that the WHOQoL-Old module total score and the main measurement WHOQoL-Bref total score were highly correlated in both the sick and healthy groups (Paper II). The high correlations between WHOQoL-Old and WHOQoL-Bref in both groups may hinder future discriminatory analyses when the two forms are used together. Thus, when seeking to reduce the burden of research on patients, it could be feasible to use either the WHOQoL-Bref or the WHOQoL-Old module separately, as QoL measures among older adults. However, the two facets of Sensory Abilities and Death and Dying in the sick group, as well as Death and Dying in the healthy group, correlated lower than 0.40 with the WHOQoL-Bref total score. This is below the recommended values (from 0.40 to 0.80) between scales when measuring the same phenomena (156). One can question if these facets should be given more attention when WHOQoL-Bref is used to assess QoL among older adults. On the other hand, the higher correlations (>0.40) between the other WHOQoL-Old facets and the WHOQoL-Bref total score may correlate because of some third, possible unrecognised, construct that links the two together, yielding spurious correlations. Also, both measurements are measuring part of the same latent variable.

6.2.2 Known group validity

The difference between the healthy (not receiving help) and sick (receiving help) groups manifests itself in differences in the mean score, differences in the conceptual clearness of the facts, and different significant contributions on the explained variance of QoL. The assumption that the QoL among sick older adults is lower than among healthy older adults (10,47,57,58) is confirmed in Paper II. In this work, a lower QoL was shown for the WHOQoL-Old total score and in all facets, except Death and Dying and Intimacy, which showed a slightly higher score in the sick group. Accordingly, the literature on sick older adults may be more concerned with psychological issues related to death than literature on the healthy group (153). The theory of gerotranscendence offers a shift in meta-perspective from a materialistic to a more spiritual perspective, enabling a movement from the actual body to a more spiritual reality. Thus, being sick and old may be perceived
Moreover, the empirical model showed physical function to be a moderator in the healthy group. This was not the case for the sick, which may indicate that the issue is more important among healthy people, compared to the sick. The theory of gerotranscendence may contribute to the explanation of this difference, as sick older adults focus more on life’s fundamentals. Another explanation might be that older adults living without help are more dependent on their own physical function, compared to those who are receiving help. On the other hand, need of help with daily living activities was found to be significantly associated with loneliness. This was considered as a threat against QoL among Swedish older adults aged 75 years and older (n = 4277) (157). In another Swedish study, reduced mobility, in terms of ability to perform physical activity, and psychosocial problems were strong predictors for low QoL. This was together with the need for help with daily living activities among older adults living at home and in special accommodation in Sweden (n = 4277, mean age 83.6) (61).

Lastly, evidence of known group validity is shown for differences: in contribution when explaining the variance in overall QoL, in overall health satisfaction and in WHOQoL-Bref total score. These give support to the different importance of facets among healthy and sick groups (158).

### 6.3 Concurrent validity

Concurrent validity, an aspect of criterion validity, was confirmed by showing that a higher amount of depressive symptoms lowered the QoL on the WHOQoL-Old total score for both groups. The relationship between QoL and depressive symptoms is well-known (53-56). Criterion validity involves assessing a measurement against the true value or a standard (gold standard), which is difficult to obtain in QoL measurement (1). In addition,
the WHOQL-Old project was established owing to the lack of an existing “gold standard” for assessing QoL among older adults.

6.4. Design and methodological biases in the study

6.4.1 Design

The assumption that only associations and no causal relations between the variables can be implied in cross-sectional design might have been pointed out somewhat more clearly in Papers III and IV. First, Wilson and Cleary (27) described their model as causal. We applied the conceptual model in a cross-sectional study. Nevertheless, the theoretical model based on WCM makes it possible to categorize measures of patient outcome and to relate concepts important to older people in a rationale scheme. Furthermore, the relationship between the operationalised variables of WCM and QoL is supported by the literature described in 2.0. However, the partial operationalising of the WCM may have biased the results, because two outcome levels were not operationalised: 1) the first level, including biological–physiological and traditional clinical variables (e.g., medical diagnoses and laboratory variables), as well as physical examinations of the organism as a whole; and 2) non-medical variables, such as political, spiritual and cultural factors, were also assumed to influence overall QoL. On the other hand, a simplification of the WCM made it easier to test validity, which was the main purpose in this thesis, and not just the WCM. Simplification of the WCM has also been found to be a satisfactory model in other studies (30-32).

Secondly, Papers III and IV applied path analysis (SEM), which tests whether the prespecified model is adequate to fit the observed data. While SEM is referred to as causal modelling, it must also be guided by the use of theory (133,134), as in the use of WCM in Papers III and IV. Causality presupposes association between variables, temporal precedence between the independent and dependent variables (31), and a non-spurious relationship between the independent and dependent variables. As in other cross-sectional studies, absence of the temporal-precedence condition occurred in our study (135). However, path analysis (SEM) makes it possible to measure mediator effects (128,128,133,138). The cross-sectional design gave just a snapshot of the respondents’ opinions at the time of the investigation.
6.4.2 Sampling biases and non-response

A methodological challenge of our study was to collect data from a representative sample of older adults with community health care and older adults without community health care. A representative sample was difficult to recruit at the time, because electronic registration of community health care was not available from national registers in all of the municipalities studied. The drawn municipalities without electronic registration were contacted with the aim of obtaining updated lists of older adults receiving community health care or living in nursing homes. As these lists have to be updated by manual work, it was very time consuming for the health care worker. This might be one reason for not participating in the study. New municipalities had to be chosen. Furthermore, this manual work may, by accident, have resulted in older adults receiving community health care after being put in the wrong group. The results showed that 16.5% (n = 389) in the group without community health care (healthy group) reported help on a regular basis. However, this help might have been informal aid from family or friends.

It could be considered a weakness of this study that we have so few institutionalised elderly (postal-group, 1%; interview-group, 18%), thereby threatening our ability to generalise our findings. According to gender, an equal percentage of participants answered the questionnaire as the drawn sample (55% female and 45% male). A nearly equal percent in the age groups answered the questionnaire (n = 401; 26% at 60-69 years, 33% at 70-79 years, 38% at 80-89 years) as the drawn sample [n = 755 (receiving the questionnaire); 28% at 60-69 years, 32% at 70-79 years, 40% at 80-89 years] (see Appendix 1).

An additional bias was to not have the registration of non-responders in the sick group. The questionnaire package might have been considered by the health care workers in the municipalities as being too large and heavy to answer for sick older adults in their department. Other reasons given by the municipalities for not participating in the study were not having enough time to check the list of older adults receiving community health care (see Figure 3) or not having time or people to administrate the interview-part of the study. In the group not receiving community health care (healthy group/survey group) the response rate was 53%, including one postal reminder. In addition, 3% returned the questionnaire saying that they did not want to participate. The rest of the withdrawn sample (without help) did not give any reason for not answering. Non-response is a well-known problem, with a common response rate in cross-sectional studies at 50 to 80%
In surveys of older adults, the response rate was age related, with the highest rates for those aged 85 years and over (84%) and the lowest among those aged 65 to 74 years (74%) (159). Thus the response rate for our postal survey (healthy group) (53%) was higher than similar studies (39%) (123) and comparable to other reports nationally (160,161). A decrease in response rates in health surveys during the last decade, due to visual and other sensory disorders, fatigue, and the impact of multiple medical conditions in the elderly, has been reported (162,163). As in other studies (164,165), we might have a selection bias towards relatively “healthy” respondents in both sample groups. This bias is difficult to avoid, as more impaired older adults will have more trouble filling in forms by themselves or by interview. Therefore, we can hardly escape from a selection bias that might have excluded the most ill, fatigued or those with smaller cognitive problems. However, in the sick group it was possible to exclude older adults defined by health care workers as having cognitive severity. This clinical judgement is weak, however. Results from our pilot showed that only one respondent in the sick group was excluded after testing cognitive impairments. Also, all respondents were clinically judged according to cognitive severity.

The administration method may have biased our study. Face-to-face interviews have a lower amount of missing responses (166). This was confirmed in our study, where we found less missing responses in for the face-to-face interview group (sick group) compared with the postal survey group (healthy group). On the other hand, there might be interviewee effects, such as avoiding answering sincerely sensitive questions (85) or describing the situation better than it actually is (81).

Thus, special procedures have been recommended when using surveys with the elderly. Changes in layout style, question sequencing and reading pauses have been recommended (43,47,167). Attempts to conform to these procedures and information to the interviewee were made in cooperation with SN. In addition, the suspected frail elderly persons receiving community health care were offered personal interviews. Overall, we assumed that the sample represented the population to which we wanted to generalise the results.
7.0 CONCLUSIONS

Overall, this thesis confirms the need for systematic validation of a measurement assessing QoL among older adults, showing strengths and weaknesses in the validity of the recently-developed Norwegian WHOQoL-Old measurement.

- Literature showed no consensus on how to measure QoL among older adults, no evidence of agreement on special considerations given to measurement adaptation, and showed a lack of definition and conceptual model in QoL research. Construct validity was reported in the majority of studies, though minimal empirical evidence was given for other psychometric properties. Validation of new measurements based on conceptual models is warranted. Furthermore, quality control standards, which can guide measurement assessment and subsequent data interpretation, are needed to enhance more consistent reporting of the psychometric properties of QoL instruments utilised.

- Based on the definition of QoL and the rigorous methodological development directly involving older adults, the WHOQoL-Old might confirm content validity.

- Construct validity of the WHOQoL-Old was partially confirmed by showing linkages with theory and theoretical conceptualization. Testing theoretical models based on the WCM, with use of the WHOQoL-Old as the QoL measurement, showed that data fit the model in both the healthy and sick samples. The most conceptually clear facets were Death and Dying, for both groups, and Sensory Abilities, in the interview-group.

- The high correlations between the WHOQoL-Old module, the add-on module and WHOQoL-Bref in both groups may weaken the convergent validity of WHOQoL-Old and also hinder future discriminatory analyses when the two forms are used together. Thus, when seeking to reduce the burden of research on patients, it could be feasible to use either the WHOQoL-Bref or the
WHOQoL-Old modules separately as measures of QoL in the elderly. However, the two facets of Sensory Abilities and Death and Dying in the sick group and Death and Dying in the healthy group should be given more attention when the WHOQoL-Bref is used among older adults.

- Known group validity was confirmed by differences between groups (healthy and sick) showing differences in the conceptual clearness of the facts, different significant contributions in explained variance of QoL and differences in data fitting the theoretical model.

- Concurrent validity was confirmed by showing that higher QoL correlates with a higher rate of depressive symptoms.

**7.1 Implications**

*7.1.1 Implications for research*

The validity of the facet structure in the WHOQoL-Old module needs further investigation, testing and refinement for various sociodemographic subgroups of Norwegians, as well as international studies of older adults. Exploring the validity of WHOQL-Old in longitudinal studies among healthy and sick older adults is warranted. In light of increasing cognitive changes by increased age, cognitive function is recommended in the further exploration of WHOQoL measurements. The assessment of cognitive function among older adults was also found to be lacking in Paper 2. Longitudinal studies could make it possible to test causal models, as well as to explore sensitivity to changes in QoL. Further efforts are needed to reduce response burden by using fewer items when assessing QoL among older adults. This might be done by further exploring both the WHOQoL-Old and WHOQoL-Bref separately and/or together. Further research is required to demonstrate if the WHOQoL-Old can be used as a ‘stand-alone’ measure of QoL in older adults and to gauge its suitability as an outcome measure in intervention trials. Testing theoretical models in QoL research is essential to validate QoL measurement. Operationalising the total model of WCM by use of other variables is warranted. An in-depth approach to assessing QoL among frail (physical and cognitive) older adults is
needed with other subjective and objective approaches assessing for example comorbidity. Analysing data according to traditional and modern psychometric means is warranted.

7.1.2 Implications for practice

This thesis contributes knowledge about predictors of QoL in old age, which may provide nursing care with important means to develop and apply interventions towards a good life, especially for vulnerable people. Furthermore, this knowledge may guide nursing teachers when lecturing about QoL. In addition, this thesis adds knowledge about QoL among older adults with or without community health care in Norway, which can be used by nurses in the community. This work shows one theoretical foundation in a research field that is often without a conceptual framework.

Application of the theoretical model, WCM, may increase nurses’ understanding of QoL and of the relationships between specific concepts, as well as give specifications for the interpretation of mediating effects. The WCM may help nurses collect and assess information, suggest suitable interventions and guide decision-making among healthy and sick older adults. For example, a patient’s QoL could be increased by focusing nursing interventions on the assessment of depression, on a patient’s ability to deal with depressive symptoms [e.g., cognitive therapy (168)], on supporting improvement of physical functioning [e.g., physical training (169)], and on identifying issues that affect general health satisfaction [e.g., by investigating the meaning of health (170) and adjusting to changes in health (171)]. Furthermore, by assessing, maintaining and improving environmental conditions, as well as decreasing environmental limitations among older adults living at home, it is possible to help older adults live in their own homes as long as they wish, with or without community health and social care (172,173). Understanding what issues impact QoL requires accurate assessment of these issues by nurses. Techniques for depression screening together with outcome measures of physical function and perceived health can help nurses and other health care professionals develop adequate support measures.

In teaching students, this thesis offers nurses a definition and a conceptual framework that is suitable for use when teaching about QoL among older adults. This theoretical framework may also facilitate the teaching of related QoL concepts. Validation and partial
development of the described measurements may serve as a framework for teaching students about validation and development of WHOQoL- measurements, as well as of scales in general.
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Articles 1-4 are removed.
Dagfinn Sve, Leiv Solheim og Gustav Haraldsen

Eldres livskvalitet
Dokumentasjon av datafangsten

Seksjon for databearbeiding
Innhold

1. Innledning ................................................................................................................................................2
2. Metode ....................................................................................................................................................2
3. Skjema .....................................................................................................................................................3
4. Nøkkeltall ...............................................................................................................................................4
5. Datainnsamling ....................................................................................................................................5
  5.1 Rekruttering av kommuner til intervjuudelen ................................................................................5
  5.2 Den postale delen ................................................................................................................................8
6. Frafall og svarprosenter ..........................................................................................................................10
7. Innsamlings- og bearbeidingsfeil ......................................................................................................12
8. Dataoverføring ......................................................................................................................................12
9. Oversikt over vedlegg ................................................................................................................................14
  9.1 Noen resultater fra undersøkelsen – fordelt på kommuner .................................................................15
  9.2 Metodenotat .........................................................................................................................................21
  9.3 Informasjonsbrev til kommunene fra SSB .......................................................................................32
  9.4 Informasjonsbrev til kommunene fra MSH .....................................................................................34
  9.5 Instruksjonsbrev til kommunene fra SSB .........................................................................................35
  9.6 Brev til respondenter fra SSB ..........................................................................................................37
  9.7 Påminnelsesbrev til respondenter fra SSB .......................................................................................38
  9.8 Spørreskjema .....................................................................................................................................39

Tidligere utgitt i serien Notater ..................................................................................................................65
1. Innledning


2. Metode

Metoden er det grundig redegjort for i vedlegg 9.2. "WHOQOL-OLD: Forslag til utvalgsplan”]. En nevner her kort at undersøkelsen var todelt:

1. Intervjudel blant eldre personer som var registrert som mottakere av kommunale hjemmebaserte tjenester og/eller som bodde på kommunal institusjon.
2. Postal del mellom personer som ikke var omfattet av gruppe 1.

Det skal også nevnes at frafallet blant kommunene var stort (se kapittel 5. Datainnsamling). Dette medførte at en ville ende opp med få personer også i den postale delen. Derfor økte en antall personer som ble trukket ut til å få tilsendt skjema i posten. Tabell 4.7 i det opprinnelige metodenotatet (vedlegg 9.2.) ble derfor sendes slik ut:

<table>
<thead>
<tr>
<th>Hjelpbehov</th>
<th>Små kommuner</th>
<th>Middels kommuner</th>
<th>Store kommuner</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Totalt 60-69</td>
<td>70-79</td>
<td>80-89</td>
</tr>
<tr>
<td>Klærer seg selv – opprinnelig utvalg</td>
<td>8</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Klærer seg selv – endelig utvalg</td>
<td>11</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>17</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
3. Skjema

SSB kommenterte utkastet til skjema (vedlegg 9.8.) i flere omganger. Det ble imidlertid ikke foretatt noen formell ekspertevaluering\(^1\) eller, enda bedre, noen uttesting av skjemaet før det ble brukt. Skjemaet var delt inn i flere moduler som inneholdt spørsmål som var utviklet i forskjellige fagmiljøer og som i stor grad var oversatt fra engelsk. Forslag til endringer måtte godkjennes av prosjektet. SSB hadde både generelle og spesifikke innvendinger mot skjemaet. De viktigste generelle innvendingene var disse:

1. Skjemaet var uforholdsmessig langt. Den endelige versjonen var på 24 sider. Ifølge spørsmålsnummereringen var det litt over 100 spørsmål. Men en god del av spørsmålene var satt sammen av lister eller utsagn, slik at det reelle antallet spørsmål er enda høyere enn dette. Det var grunn for å vente at skjemalengden og antall spørsmål ville påvirke svarprosenten i negativ retning.

2. Mange av spørsmålsmodulene er ganske like måter å spørre om samme tema på. Et av formålene med undersøkelsen er å se hvordan hvor godt eller dårlig disse alternative spørsmålssettene fungerer. Etter SSBs mening burde imidlertid spørsmålsområdet i så fall vært holdt fra hverandre i forskjellige skjema eller vært presentert i forskjellig rekkefølge i skjemaene. Hvis ikke, er faren for ulike typer rekkefølgeeffekter stor.

3. Vi mener det vanligvis er uhell å starte med spørsmål om svarpersonens bakgrunn fordi det som regel ikke er åpenbart at slike spørsmål har relevans for temaet i undersøkelsen. Derfor kan en slik plassering bidra til å redusere svarmotivasjonen, og dermed også til å redusere svarprosenten. Forslaget om å flytte bakgrunnsoppsknalene til slutt i skjemaet ble imidlertid ikke tatt til følge. Derimot ble rekkefølgen av noen av de andre spørsmålsmodulene endret i løpet av planleggingsprosessen.

4. Selv om spørsmålene er ganske like, skifter svarskalaene som brukes gjennom skjemaet. Noen ganger blir deltakerne også bedt om å svare for det som har vært tilfellet de to siste ukene, mens de andre ganger blir bedt om å gi generelle svar. Det var imidlertid flere og mer utover definerer skiffer mellom svarskalaer og tidsreferanser i tidligere utkast til skjemaet enn i den endelige versjonen. SSB bidro til at spørsmål som bruker samme svarskala ble gruppert sammen og til tidsreferansen i spørsmålene ble tydeligere.

5. En god del av spørsmålene består av utsagn som svarer svarpersonene skal angi om passer godt eller dårlig med deres egen virkelighet. Dette er en indirekte spørsmålsform som vi vanligvis anbefaler at man unngår så langt som mulig.

6. Noen av svarskalaene er ubalanserte, andre er flerdimensjonale. Noen av begrepen som brukes i svarskalaene fortviler seg dessuten som meningsløse når de settes sammen med spørsmålene. Her er et eksempel på et spørsmål som både er ledende og som har et svaralternativ (det siste) som faller utenfor skalaen og som det er vanskelig å forstå hva betyr.

\[^1\] En formell ekspertevaluering foretas av minst to, og helst tre personer som vurderer spørsmålene i skjemaet i forhold til et evalueringsskjema. Denne typen evalueringsskjemaer er utviklet på grunnlag av kunnskap om de tankemessige prosessene en svarperson gjennomgår når han leser og svarer på et spørsmål og på erfaringer med hva som er de vanligste problemene (Se f eks Lessler & Forsyth, 1996). Ekspertene vurderer vanligvis først skjemautekstet hver for seg. Deretter kommer de sammen og skriver en samlet vurdering.
7. Oversettelsene av spørsmål som opprinnelig er skrevet på engelsk burde ideelt sett først vært oversatt til norsk og deretter fra norsk tilbake til engelsk for å vurdere om oversettelsen formidler det opprinnelige meningsinnholdet i spørsmålene.

Skjemaet ble skrevet av SSB og følger derfor stort sett hevdvunne prinsipper for utforming av papirskjema (se Dillman 2000).

Referanser – kapittel 3


4. Nøkkeltall


<table>
<thead>
<tr>
<th>Kommune</th>
<th>Dato utsendt post 1</th>
<th>Dato påminnelse 1</th>
<th>Antall sendt post 1</th>
<th>Dato utsendt post 2</th>
<th>Dato påminnelse 2</th>
<th>Antall sendt post 2</th>
<th>Dato utsendt til kommunen</th>
<th>Antall skjema til kommunen</th>
<th>Mottatt fra kommunen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lørenskog</td>
<td>2903</td>
<td>2304</td>
<td>100</td>
<td>1405</td>
<td>0906</td>
<td>100</td>
<td>0504</td>
<td>100</td>
<td>13</td>
</tr>
<tr>
<td>Ringsaker</td>
<td>2903</td>
<td>2304</td>
<td>110</td>
<td>1405</td>
<td>0906</td>
<td>100</td>
<td>0504</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Skjåk</td>
<td>2903</td>
<td>2304</td>
<td>110</td>
<td>1405</td>
<td>0906</td>
<td>111</td>
<td>0504</td>
<td>69 (1)</td>
<td>11</td>
</tr>
<tr>
<td>Hå</td>
<td>2304</td>
<td>1305</td>
<td>35</td>
<td>1405</td>
<td>0906</td>
<td>35</td>
<td>0504 (44) 1904 (25)</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Sola</td>
<td>0605</td>
<td>0906</td>
<td>39</td>
<td>1405</td>
<td>0906</td>
<td>39</td>
<td>2104</td>
<td>400 (2)</td>
<td>15</td>
</tr>
<tr>
<td>Kvinneherad</td>
<td>2304</td>
<td>1305</td>
<td>35</td>
<td>1405</td>
<td>0906</td>
<td>35</td>
<td>2104</td>
<td>50</td>
<td>7</td>
</tr>
<tr>
<td>Jolster</td>
<td>2903</td>
<td>2304</td>
<td>11</td>
<td>1405</td>
<td>0906</td>
<td>11</td>
<td>0504</td>
<td>18</td>
<td>2</td>
</tr>
<tr>
<td>Stjørdal</td>
<td>2304</td>
<td>1305</td>
<td>35</td>
<td>1405</td>
<td>0906</td>
<td>35</td>
<td>2104</td>
<td>50</td>
<td>20</td>
</tr>
<tr>
<td>Hammerfest</td>
<td>2304</td>
<td>1305</td>
<td>35</td>
<td>1405</td>
<td>0906</td>
<td>35</td>
<td>2104</td>
<td>50</td>
<td>16</td>
</tr>
</tbody>
</table>

1) En trakk først 44 personer, som viste seg å være for lite, da mange av de på lista ikke var i stand til å bli intervjuet. En sendt derfor en tilleggsliste med ytterligere 25 personer.

Tabell 1 Utvalgsstørrelse og avgang og frafall i den postale delen

<table>
<thead>
<tr>
<th></th>
<th>Antall personer</th>
<th>Prosent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personer trukket ut til den postale undersøkelsen</td>
<td>802</td>
<td>100,0</td>
</tr>
<tr>
<td>Avgang (ukjent adresse, død, flyttet fast til utlandet o.l.)</td>
<td>47</td>
<td>5,86</td>
</tr>
<tr>
<td><strong>Bruttoutvalg</strong></td>
<td><strong>755</strong></td>
<td><strong>100,0</strong></td>
</tr>
<tr>
<td>Frafall</td>
<td>354</td>
<td>46,9</td>
</tr>
<tr>
<td><strong>Nettoutvalg</strong></td>
<td><strong>401</strong></td>
<td><strong>53,1</strong></td>
</tr>
</tbody>
</table>

En avgangsprosent på nesten 6 prosent kan virke noe høyt, men det er viktig å huske på at det i denne undersøkelsen er mange eldre, noe som øker avgangen.

5. Datainnsamling

Datainnsamlingen var som nevnt todelt:

1. Intervju av eldre personer som var registrert som mottakere av kommunale hjemmebaserte tjenester og/eller som bodde på kommunal institusjon.
2. Postal undersøkelse mellom personer som ikke var omfattet av gruppe 1.

5.1 Rekruttering av kommuner til intervjudelen

Det ble valgt ut en del kommuner som en ville innlede et samarbeid med. En valgte å kontakte noen såkalte IPLOS-kommuner (Individbasert Pleie- og OmsorgsStatistikk), fordi en antok at disse kommunene hadde lett tilgjengelige elektroniske oversikter over sine pleietrengende eldre. Slike oversikter var essensielle for å kunne gjennomføre undersøkelsen som planlagt. For enkelte kommuner ble det også valgt ut reservekommuner som kunne kontaktes om den opprinnelig valgte kommunen ikke hadde anledning til å delta. Ikke alle kommuner hadde reservekommune. De såkalte IPLOS-kommunene fikk ikke reserver fordi det ble vanskelig da det ble satt krav om at kommunen skulle være med i den generelle utvalgsplanen for besøksundersøkelser, ha IT system og dessuten skulle kommunene være godt spredd over kommuneklasser, se også avsnitt 4 i metodenotatet i vedlegg 9.2. Tabell 4.4 i samme vedlegg gir oversikt over valgte kommuner med reservekommuner.

Arbeidet med å rekrutere kommuner skulle vise seg å bli betydelig mer arbeidskrevende enn først antatt. For det første var det meget vanskelig å få kontakt med riktig og ansvarlig person i kommunene. For det andre måtte det gås interne runder i en del av kommunene for å kartlegge om dette var noe de så seg i stand til å være med på. For det tredje kunne en del kommuner bistå med å levere ut opplysninger om hvem som mottok hjemmebaserte tjenester eller som bodde på institusjon, mens de ikke kunne delta i selve intervjuingen. For det fjerde var det en del kommuner som trakk seg etter først å ha sagt ja. Til slutt var det en del kommuner som trakk seg etter at intervjuingen hadde startet, mens andre igjen ikke greide å få inn så mange svar som var ønskelig. Til sammen gjorde dette datafangsten vanskelig og meget tidkrevende.

Rekrutteringen startet med at en person tok telefonkontakt med kommunene. Dette ble etter hvert utvidet med ytterligere to personer som arbeidet med oppfølging. En ringte først kommunens sentralbord/servicetorg, la fram saken og ble så satt over til "riktig person" som ofte var helsesjef, helse- og omsorgssjef, pleie- og omsorgssjef osv. Disse personene måtte så
drofte dette i sine ledergrupper for å finne ut om det var mulig å gjennomføre oppdraget. En del kommuner bad om å få tilsendt skjema for å vurdere ev. deltagelse.

En antok at kommunene ikke ønsket å benytte egne ressurser til å gjennomføre såpass omfattende intervju. Derfor skulle de få en godtgjørelse på kroner 275 per intervju. Dette beløpet skulle omfatte alle kostnadene med intervjuene. Hvorvidt dette var en passende godtgjørelse i forbindelse med arbeidet, har en ikke noen oversikt over. SSB har ikke mottatt noen tilbakemelding på hvor lenge intervjuene varte, og heller ingen kommentarer til størrelsen på godtgjørelsen.


De kommunene som i første omgang sa seg villig til å delta, ble tilskrevet fra SSB (vedlegg 9.3. og vedlegg 9.4.), og bedt om å sende oversikt over hvilke personer som mottok hjemmebaserte tjenester, og/eller som bodde på institusjon. Ut fra denne listen med fødselsnummer som SSB fikk tilsendt, ble det trukket personer etter følgende kriterier:

- Sortering i de tre aldersgruppene (60-69, 70-79, 80-89)
- Sortere på fornavn innen gruppen. (En måte å blande populasjonen, eller å gjøre utvalget tilfeldig. Dette måtte gjøres siden utvalget først skulle trekkes systematisk for så spre utvalget over alfabetet.)
- Trekke så hver x. ut fra hvor mange som skal trekkes ut i stratumet og hvor mange det er i populasjonen
- Før lista ble sendt tilbake til kommunene, ble de som hadde blitt trukket ut på nytt sortert etter navn, slik at intervjuobjektene ikke lenger var sortert etter aldersgruppene

Kommunene fikk lista i retur, og ble bedt om å intervjue personer i rekkefølge ”fra toppen”. Inklusjons- og eksklusjonskriteriene ble presentert i telefonsamtaler med kommunene, og gikk ellers tydelig fram av følgebrevet (vedlegg 9.5.) som ble sendt sammen med skjema og taushetsklæring til kommunene. Siden flere av personene på lista av ulike årsaker ikke var i stand til delta i et slik intervju, forventet ikke SSB at det var mulig å gjennomføre intervju med mer enn 25-30 prosent av personene på lista. En så pass lav antatt svarprosent var basert på erfaring fra intervjuundersøkelser blant personer i yngre aldersgrupper, og derpå et anslått frafall på grunn av sykdom og alder. Dette viste seg å holde stikk, og faktisk var det en del kommuner som ikke greide å gjennomføre intervju med så mange heller. En del kommuner ga også opp etter at de hadde fått tatt skjema nærmere i øyesyn og etter å ha møtt litt motgang i de første intervjuene. Det ble ikke gjennomført en grundig kartlegging av årsaker til frafall, men tilbakemeldingene ble notert. Nedenfor har en sakset noen av de kommentarene som vi mottok fra kommunene.

Fra tilbakemeldingene:

Kommune:
"Folk vegra seg til å være med. Brukte en sosionomstudent til intervjuingen (fungerte veldig bra)."

Kommune:
"Mange greide ikke å delta pga. sin mentale/somatiske tilstand. Brukte en 51 år gammel vernepleier og en 47 år gammel sykepleier til intervjuingen."

Kommune:
"Startet friskt og optimistisk, gjennomførte to intervju. Deretter kom det tredje intervjuet ikke i gang da IO ikke ville. Hos den fjerde IO slapp ikke intervjuer innom døra da IO ikke ønsket
å være med. Intervjuer hadde da mistet motivasjonen. Brukte en person på aktiv sykmelding til intervjuingen.”

E-post fra noen kommuner som trakk seg:

**Kommune (som backa ut etter 3 md.):**
"Viser til påminning og telefon samtale i dag. Av ulike årsaker både privat og arbeidsrelatert ser eg diverre ikkje at eg har høve til å følgja opp tidlegare avtale om registreringsarbeid. Beklarag dette.”
NN

**Kommune (som backa ut etter 2,5 md.):**
"hei
Vi har nå sett på muligheter for å delta, men finner desverre ingen ressurser vi kan benytte til dette arbeidet. Jeg var optimistisk i forrige uke, men pga sykmelding faller dette alternativet. Håper vi kan bidra ved en senere anledning.”
Mvh
NN

**Kommune (reserve for annen kommune):**
"Men til saka; Eg snakka med leiarane i omsorgstenesta i går som eg hadde lova deg, og ein av kommunalsjefane var også tilstades. Det var ikkje noko motivasjon å sjå for denne forskningsstudien. "Dette har vi ikkje tid til", meinte dei. Dei hadde ingen person å avsjå til å gjennomføre intervjua, og vi har nettopp hatt vår eiga brukarundersøking i omsorgssektoren, så dei meinte vi hadde brukt nok tid på dette. De kan evt få bruke data frå denne undersøkinga, om det let seg gjere (men det er vel ulik spørsmålsformulering?). Dersom de er interesserte, kan eg sende spørbeskjemaet vi har brukt, slik at de kan samanlikne det med det de brukar.

Håpar de får nok positiv respons frå andre kommunar. Eg må diverre seie nei takk på vegne av “Kommune”. Vi er i ein svært hektisk fase no, med omorganisering av omsorgstenestene våre, så "omsorgsfolket" ser seg ikkje i stand til å ta på seg meir enn det som er heilt nødvendig.”

**Kommune (etter 4 md. fikk vi denne e-posten):**
"Viser til telefon samtale i dag.
"Kommune” kommune må desverre melde fra om at vi ikke kan være med i undersøkelsen. Bakgrunnen er i hovedsak at kommunen er i en nedbemannings- og omstillingsfase og derfor ikke kan avse personell til denne intervjurunden.”

**Kommune (etter 3 md. fikk vi denne e-posten) (ingen reserve kommune):**
"Vi beklager å måtte tilbakemelde at vi ikke ser oss i stand til å bli med på denne undersøkelsen nå.”
Med hilsen
NN
Pleie-og omsorgsavd.
"Kommune” kommune

**Kommune (ingen reserve kommune):**
"Har luftet dette med mine 11 enhetsledere. Disse ønsker ikke at vi deltar i us nå. Vi har svært mye annet i gang og har behov for å få andre biter på plass. Ellers takk for tilbudet !”

7
Vh
NN

Kommune (ingen res. komm):
"hei.
Vi har fått en henvendelse om vi kan delta i en undersøkelse ang eldres livskvalitet. Vi må dessverre beklage at vi ikke har anledning til å bli med denne gangen."
mvh NN

Kommune (som var positiv i utg. pkt, men sometter flere tlf. brev og e-poster over 4-5 md. svarer følgende. Det var da for sent å dra inn reservekommune):
"Vi må bare beklage at vi ikke kan delta i denne undersøkelsen. Vi får ikke tak i personer som kan gjennomføre spørreundersøkelsen."
NN

Klipp fra logger etter telefonsamtaler med noen kommuner som måtte trekke seg:

Kommune (beskjed etter 2 md):
"Kommunen kan ikke delta pga. omorganisering"

Kommune:
"SDa 15.1.04: Skeptisk. Det har blitt gjennomført andre undersøkelser nylig. Mye arbeid. Vi snakkas igjen på mandag 19.01.04 mellom 1000 og 1100. SDa 19.01.04 "Kommune” backer ut. De ser ikke mulighet for å gjøre dette.”

Kommune (som i utgangspunktet var positiv):
"Ja. SDa 10.03.2004 Sendt påminnelse via brev. SDa 22.03.2004 Ringt til NN SDa 23.03.2004 Trekker seg. Det er ikke rom for å delta i undersøkelsen”

Kommune:
"SDA 16.1.04. Forsøker NN noe senere på dagen. Går ikke i nord med NN pga. ombygginger og utvidelser i region nord. NN i region sør var ikke uvillig, men måtte ha bistand fra region nord. ....... Det går nok ikke med "Kommune” kommune i denne sammenhengen.”

Kommune:
"Fikk ikke kontakt etter 9 telefonoppringinger over 2-3 uker. Lagt igjen beskjeder på telefonvarere og på sentralbord...Fant det vanskelig å kople inn reservekommunen.”

5.2 Den postale delen
En ønsket ikke å sende skjema i posten til personer som mottok kommunale hjemmebaserte tjenester og/eller som bodde på kommunal institusjon. Derfor ble personene på listene fra kommunene fjernet fra "trekkepopulasjonen". Ut fra den gjenvarende populasjonen, trakk en et utvalg av personer i kommunene som fikk tilsendt skjema i posten. Utvalgsplanen er gjengitt i vedlegg 9.2. (se også tabell 4.7. i kapittel 2). Det må nevnes at det heller ikke ble gjennomført noen postal undersøkelse i de kommunene hvor en ikke mottok de tidligere nevnte lister over personer. Årsaken til dette var at en ikke ønsket å sende skjema til personer som mottok hjemmebaserte tjenester eller som bodde på institusjon.

Alle som var med i den postale delen, fikk tilsendt et kombinert takke- og påminnelse brev 3-4 uker etter at de hadde mottatt første utsending (se vedlegg 9.7.).


Hovedtrekkene i skjemaingangen går fram av tabellen og figuren nedenfor.

Tabell 2

Svarinngang per uke i datainnsamlingen. Gjelder bare postale skjema.

<table>
<thead>
<tr>
<th>Uke</th>
<th>Dato</th>
<th>Uke nr.</th>
<th>Antall svar pr.</th>
<th>Antall svar</th>
<th>Svarprosent av bruttoutvalg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Antall svar pr.</td>
<td>totalt</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>uke</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>12. - 18.4.</td>
<td>16</td>
<td>44</td>
<td>44</td>
<td>5,8</td>
</tr>
<tr>
<td>2</td>
<td>19. – 25.4.</td>
<td>17</td>
<td>13</td>
<td>57</td>
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<td>3</td>
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<td>18</td>
<td>52</td>
<td>109</td>
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<tr>
<td>4</td>
<td>3. - 9.5.</td>
<td>19</td>
<td>40</td>
<td>149</td>
<td>19,7</td>
</tr>
<tr>
<td>5</td>
<td>10. - 16.5.</td>
<td>20</td>
<td>14</td>
<td>163</td>
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</tr>
<tr>
<td>6</td>
<td>17. - 23.5.</td>
<td>21</td>
<td>66</td>
<td>229</td>
<td>30,3</td>
</tr>
<tr>
<td>7</td>
<td>24. – 30.5.</td>
<td>22</td>
<td>85</td>
<td>314</td>
<td>41,6</td>
</tr>
<tr>
<td>8</td>
<td>31. - 6.6.</td>
<td>23</td>
<td>19</td>
<td>333</td>
<td>44,1</td>
</tr>
<tr>
<td>9</td>
<td>7. - 13.6.</td>
<td>24</td>
<td>16</td>
<td>349</td>
<td>46,2</td>
</tr>
<tr>
<td>10</td>
<td>14. - 20.6.</td>
<td>25</td>
<td>33</td>
<td>382</td>
<td>50,6</td>
</tr>
<tr>
<td>11</td>
<td>21. - 27.6.</td>
<td>26</td>
<td>7</td>
<td>389</td>
<td>51,5</td>
</tr>
<tr>
<td>12</td>
<td>28.6. - 4.7.</td>
<td>27</td>
<td>9</td>
<td>398</td>
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<tr>
<td>13</td>
<td>5. - 11.7.</td>
<td>28</td>
<td>2</td>
<td>400</td>
<td>53,0</td>
</tr>
<tr>
<td>14</td>
<td>12. - 18.7.</td>
<td>31</td>
<td>1</td>
<td>401</td>
<td>53,1</td>
</tr>
<tr>
<td>Totalt</td>
<td></td>
<td></td>
<td>401</td>
<td>401</td>
<td>53,1</td>
</tr>
</tbody>
</table>

1. utsending startet i kalenderuke 14, med påminnelse i uke 17.
2. utsending i kalenderuke 20, med påminnelse i uke 24.
6. Frafall og svarprosenter


Av de 755 personene i bruttoutvalget, var det 354 som ikke returnerte utfylt skjema. Dette gir en frafallsprosent på 47.

Av de som ble trukket ut, var 55 prosent kvinner og 45 prosent menn. Tabellen nedenfor viser at av 393 personer som hadde krysset av for kjønn i skjemaet, så var 55 prosent kvinner og 45 prosent menn.
Er du mann eller kvinne? Gjelder bare den postale delen av utvalget

<table>
<thead>
<tr>
<th>Alle kommuner</th>
<th>I alt</th>
<th>Ubesvart</th>
<th>Kvinne</th>
<th>Mann</th>
</tr>
</thead>
<tbody>
<tr>
<td>0230</td>
<td>115</td>
<td>1</td>
<td>63</td>
<td>51</td>
</tr>
<tr>
<td>0412</td>
<td>102</td>
<td>2</td>
<td>52</td>
<td>48</td>
</tr>
<tr>
<td>0513</td>
<td>7</td>
<td>.</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1119</td>
<td>37</td>
<td>1</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td>1124</td>
<td>35</td>
<td>2</td>
<td>16</td>
<td>17</td>
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<td>1224</td>
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<td>16</td>
<td>14</td>
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<tr>
<td>1431</td>
<td>11</td>
<td>2</td>
<td>6</td>
<td>3</td>
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<tr>
<td>1714</td>
<td>33</td>
<td>.</td>
<td>26</td>
<td>7</td>
</tr>
<tr>
<td>2004</td>
<td>31</td>
<td>.</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>

Tabellen nedenfor viser antall personer i utvalget fordelt etter alder og bosted. De relativt få returene ble ikke registrert med tanke på kjønn og alder.

Antall personer som ble trukket ut til å være med i den postale undersøkelsen etter alder og kommunestørrelse

<table>
<thead>
<tr>
<th>I alt</th>
<th>Totalt</th>
<th>60-69</th>
<th>70-79</th>
<th>80-89</th>
</tr>
</thead>
<tbody>
<tr>
<td>Små kommuner</td>
<td>44</td>
<td>12</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Middels kommuner</td>
<td>358</td>
<td>102</td>
<td>112</td>
<td>144</td>
</tr>
<tr>
<td>Store kommuner</td>
<td>400</td>
<td>112</td>
<td>128</td>
<td>160</td>
</tr>
</tbody>
</table>

Antall personer som mottok skjema (bruttoutvalget, utvalget justert for returer) etter alder og kommunestørrelse

<table>
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<tr>
<th>I alt</th>
<th>Totalt</th>
<th>60-69</th>
<th>70-79</th>
<th>80-89</th>
</tr>
</thead>
<tbody>
<tr>
<td>Små kommuner</td>
<td>41</td>
<td>11</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Middels kommuner</td>
<td>337</td>
<td>96</td>
<td>105</td>
<td>136</td>
</tr>
<tr>
<td>Store kommuner</td>
<td>377</td>
<td>106</td>
<td>121</td>
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</table>

Antall personer som har besvart skjema etter alder og kommunestørrelse

<table>
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<th>I alt</th>
<th>Totalt</th>
<th>60-69</th>
<th>70-79</th>
<th>80-89</th>
<th>Ubesvart eller over 89</th>
</tr>
</thead>
<tbody>
<tr>
<td>Små kommuner</td>
<td>18</td>
<td>2</td>
<td>7</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Middels kommuner</td>
<td>166</td>
<td>49</td>
<td>46</td>
<td>64</td>
<td>7</td>
</tr>
<tr>
<td>Store kommuner</td>
<td>217</td>
<td>54</td>
<td>78</td>
<td>82</td>
<td>3</td>
</tr>
</tbody>
</table>
Svarprosent etter alder og kommunestørrelse

<table>
<thead>
<tr>
<th></th>
<th>Totalt</th>
<th>60-69</th>
<th>70-79</th>
<th>80-89</th>
<th>Ubesvart eller over 89</th>
</tr>
</thead>
<tbody>
<tr>
<td>I alt</td>
<td>53</td>
<td>49</td>
<td>54</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Små kommuner</td>
<td>44</td>
<td>18</td>
<td>47</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Middels kommuner</td>
<td>44</td>
<td>51</td>
<td>44</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Store kommuner</td>
<td>58</td>
<td>51</td>
<td>64</td>
<td>55</td>
<td></td>
</tr>
</tbody>
</table>

I den postale delen av undersøkelsen, er svarprosenten på 53 for hele utvalget. Det er en del forskjeller innenfor aldersgruppene, men størst er svarprosenten i aldersgruppa 70-79 år. Det er også de største kommunene som har den høyeste svarprosenten i alle aldersgrupper. Lavest svarprosent var det i de minste kommunene. Årsaken til det er nok at det var veldig få personer som ble trukket ut i disse små kommunene, og noen få frafall gjør store utslag i svarprosenten.

7. Innsamlings- og bearbeidingsfeil


En annen mulig feilkilde er faren for dubletter, siden alle i den postale undersøkelsen mottok skjemaet i to forskjellige utsendinger. Dette er en feilkilde det er vanskelig å gardere seg mot i undersøkelser som gjennomføres helt anonymt. Vi antar at dette eventuelt ikke vil gjelde særlig mange, da det var relativt omfattende å fylle ut skjema, og de som fylte ut første gang ønsket nok ikke å fylle ut en gang til.

Bearbeidingsfeil oppstår under bearbeidingen av selve datamaterialet. Dette skjer under prosessen fra mottak av skjema til datamaterialet ligger klart for å kunne benyttes i statistiske analyser. I denne undersøkelsen ble svarene fra skjemaene registrert manuelt, og det er derfor mulig at det registreres feil. En rekke kontroller på ugyldige verdier i svaralternativene, gjør at registreringsfeilene reduseres, men en kan aldri helt garde seg mot slik feilregistrering. Derimot vil det ikke være fare for systematisk feilregistrering.

8. Dataoverføring

Skjemaet bestod av 24 A4-sider satt sammen i et hefte som var stiftet i ryggen. Med bakgrunn i et omfattende skjema og et relativt lite antall skjema som skulle samles inn, lønte det seg å registrere skjemaene manuelt framfor å scanne dem.

Registreringsrutinen ble utarbeidet i programverktøyet Oracle Forms av Kontor for IT ved Avdeling for næringsstatistik (K403).
I registreringsrutinen var det programmert inn en del kontroller på gyldige verdier (f. eks. at det ikke var mulig å taste alfanumeriske verdier i et numerisk felt). I tillegg ble det i databasen i ettertid kjørt en del gyldighetskontroller (eksempelvis ble verdien ”5” sjekket opp der bare verdiene ”1”, ”2” og ”3” var tillatt).

Oppdragsgiver reagerte på en del partielt frafall i undersøkelsen, og det ble derfor foretatt en del stikkprøver for om mulig å avdekke manglende registrering. Det ble ikke funnet eksempel på at registreringen var mangelfull. Det vil si at det partielle frafallet var reelt.
9. Oversikt over vedlegg

9.1. Noen resultater fra undersøkelsen – fordelt på kommuner

9.2. Metodenotat

9.3. Informasjonsbrev til kommunene fra SSB

9.4. Informasjonsbrev til kommunene fra MSH

9.5. Instruksjonsbrev til kommunene fra SSB

9.6. Brev til respondenter fra SSB

9.7. Påminnelsesbrev til respondenter fra SSB

9.8. Spørreskjema
Vedlegg 9.1. Noen utvalgte kommunetabeller. Gjelder både den postale undersøkelsen og intervjuundersøkelsen

**Spørsøy 1**
Er du mann eller kvinne?

<table>
<thead>
<tr>
<th>Alle kommuner</th>
<th>I alt</th>
<th>Ubesvart</th>
<th>Kvinne</th>
<th>Mann</th>
</tr>
</thead>
<tbody>
<tr>
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<td>90</td>
<td>128</td>
<td>1</td>
<td>70</td>
</tr>
<tr>
<td>0412</td>
<td>102</td>
<td>12</td>
<td>2</td>
<td>52</td>
</tr>
<tr>
<td>0513</td>
<td>12</td>
<td>.</td>
<td>.</td>
<td>7</td>
</tr>
<tr>
<td>1119</td>
<td>48</td>
<td>48</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>1124</td>
<td>50</td>
<td>70</td>
<td>2</td>
<td>27</td>
</tr>
<tr>
<td>1224</td>
<td>37</td>
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<tr>
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<tr>
<td>1714</td>
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**Spørsøml 2**
Hvor gammel er du? (antall år)

<table>
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<th>80-89</th>
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**Spørsøml 4**
Hva er din sivile status?

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<th>Enke/enkem. eller gjenlev. partner</th>
<th>Skilt</th>
<th>Separert</th>
<th>Ubesvart</th>
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</table>
Spørsmål 11
Bor du i egen bolig, bor du hos andre eller bor du på institusjon?

<table>
<thead>
<tr>
<th>Bor i egen bolig</th>
<th>Bor hos familie eller andre</th>
<th>Bor i omsorgsbolig</th>
<th>Bor på aldershjem</th>
<th>Bor på sykehjem</th>
<th>Ubesvart</th>
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Spørsmål 12
Mottar du regelmessig hjelp til vask og rengjøring av boligen eller til annet husarbeid?

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Spørsmål 17
Vil du si at din økonomiske situasjon er bedre, dårligere eller på samme nivå som andre folk på din alder?

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16
### Spørsmål 53
Hvor tilfreds er du med helsen din?

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### Spørsmål 55
I hvilken grad trenger du medisinsk behandling for å kunne fungere til daglig?

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### Spørsmål 56
Hvor mye gleder du deg over livet?

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### Spørsmål 63

Har du nok penger til å dekke dine behov?

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### Spørsmål 70

Hvor tilfreds er du med deg selv?

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### Spørsmål 72

Hvor tilfreds er du med ditt seksualliv?

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### Spørsmål 81_1
Føler du deg jevnt over tilfreds med livet?

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Stort sett, vil du si at din helse er:

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</tr>
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<td>4</td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1119</td>
<td>5</td>
<td>9</td>
<td>17</td>
<td>10</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>1124</td>
<td>3</td>
<td>10</td>
<td>19</td>
<td>10</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>1224</td>
<td>3</td>
<td>8</td>
<td>13</td>
<td>9</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1431</td>
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<td>2</td>
<td>9</td>
<td>.</td>
<td>.</td>
<td>1</td>
</tr>
<tr>
<td>1714</td>
<td>4</td>
<td>8</td>
<td>18</td>
<td>12</td>
<td>11</td>
<td>.</td>
</tr>
<tr>
<td>2004</td>
<td>5</td>
<td>3</td>
<td>19</td>
<td>10</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>

### Spørsmål 89
Vurderer du deg selv generelt som frisk eller syk?

<table>
<thead>
<tr>
<th></th>
<th>Frisk</th>
<th>Syk</th>
<th>Ubesvart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alle kommuner</td>
<td>377</td>
<td>86</td>
<td>27</td>
</tr>
<tr>
<td>0230</td>
<td>101</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>0412</td>
<td>83</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>0513</td>
<td>7</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>1119</td>
<td>38</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>1124</td>
<td>39</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>1224</td>
<td>28</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1431</td>
<td>12</td>
<td>.</td>
<td>1</td>
</tr>
<tr>
<td>1714</td>
<td>38</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>2004</td>
<td>31</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>
**Spørsmål 96**
Bruker du vitaminer, mineraler, urter eller medisiner som ikke er anbefalt fra lege eller skrevet ut på resept av lege?

<table>
<thead>
<tr>
<th></th>
<th>Ja</th>
<th>Nei</th>
<th>Ubesvart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alle kommuner</td>
<td>286</td>
<td>182</td>
<td>22</td>
</tr>
<tr>
<td>0230</td>
<td>75</td>
<td>48</td>
<td>5</td>
</tr>
<tr>
<td>0412</td>
<td>50</td>
<td>46</td>
<td>6</td>
</tr>
<tr>
<td>0513</td>
<td>7</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>1119</td>
<td>30</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>1124</td>
<td>27</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>1224</td>
<td>21</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>1431</td>
<td>7</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>1714</td>
<td>39</td>
<td>14</td>
<td>.</td>
</tr>
<tr>
<td>2004</td>
<td>30</td>
<td>16</td>
<td>1</td>
</tr>
</tbody>
</table>
WHOQOL_OLD: Forslag til utvalgsplan

1. Innledning

Norge ved Menighetssøsterhjemmets høgskole deltar i internasjonal studie i regi av WHO om de eldres livsvilkår/livskvalitet. For å hente inn data skal det gjennomføres en utvalgsundersøkelse blant personer over 60 år. Alle over 60 år er målgruppen, men det er særlig viktig å få med syke og personer med behov for hjelp i utvalget, enten de er brukere av hjemmetjenesten eller pasienter på sykehus i kommunene.

1.1. Forslaget

Vi foreslår at undersøkelsen gjennomføres i to trinn ved at

- Det trekkes ut 20 kommuner som kontaktes for å få oversendt på elektronisk form en liste over fødselsnumrene til brukere av hjemmetjenester og beboere på institusjoner
- Det gjennomføres en trekking av personer i de kommunene som har levert lister i forrige ballunkt etter en stratifisert utvalgsplan med hensyn på alder og behov for hjelp

Dette utvalget av personer på inntil 1 500 intervjuers ved en kombinasjon av postalt skjema og bruk av besøksintervju. Utvalget fordeles på kommunene etter nøkkelen gitt ved at i

- kommuner med inntil 5 000 innbyggere trekkes 25 personer
- kommuner med mellom 5 000 og 20 000 innbyggere trekkes 75 innbyggere
- kommuner med over 20 000 innbyggere trekkes 150 personer

og disse skal fordeles etter følgende prosentfordeling i hver kommune gitt ved tabell 1.1.

1.2. Innholdet i notatet

I avsnitt 2 gir vi en beskrivelse av befolkningen over 60 år og behovet for pleie- og omsorgstjenesten, mens vi i avsnitt 3 har utarbeidet et forslag til utvalgsplan. I avsnitt 4 beskrives først trekkingen av kommunene og deretter hvordan personer skal trekkes fra de uttrukne kommunene.
2. Befolkningen og brukere av pleie- og omsorgstjenesten

De kravene som er stilt til utvalget og bruken av dette indikerer at utvalget IKKE bør trekkes som et proporsjonalt allokert utvalg, men som et preallokert utvalg med hensyn på en inndeling av populasjonen over 60 år. Det grunn til å tro at følgende faktorer kan være av betydning for livsvilkårene og livskvaliteten for en person:

- alder
- familie/husholdning
- kjønn
- bosted
- behov for hjelp

Fra Det sentrale folkeregistret kjenner vi de fire første faktorene (familie, men ikke husholdning), mens den femte er ukjent. Det er opplagt betydelig forskjell i behovet for hjelp for en person over åtti år om han/hun bor hjemme eller på sykehjem. Dette er imidlertid ikke kjent fra den registerinformasjonen som nyttes til å trekke personutvalg. Når registret for individbasert pleie- og omsorgsstatistikk, IPLOS, er på plass fra 2006 vil situasjonen være helt annet siden en da kunne delt populasjonen over 60 år i tre hovedgrupper på individnivå:

- Bosatte som IKKE mottar tjenester fra pleie og omsorg
- Bosatte som mottar hjemmetjenester fra pleie- og omsorg
- Bosatte i institusjoner

Det er ganske selvsagt at til å tro at behovet for hjelp øker kraftig fra den første til den tredje gruppa og at dette påvirker også livsvilkårene og livskvaliteten til de eldre.

Ifølge statistikk over pleie- og omsorgstjenester var det i 2002 161 998 mottakere av hjemmetjenester og 41 693 beboere, se tabell 2.1 for flere detaljer. I tabell 2.2 har vi laget en fordeling mellom bosatte uten bruk av pleie- og omsorgstjenester, hjemmeboende brukere og institusjonsbeboere.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brukergruppe</td>
<td>Totalt</td>
<td>Under 67</td>
<td>67-74</td>
<td>75-79</td>
<td>80-84</td>
<td>85-89</td>
<td>Over 90</td>
</tr>
<tr>
<td>Totalt</td>
<td>203 691</td>
<td>43 337</td>
<td>20 899</td>
<td>30 316</td>
<td>45 561</td>
<td>39 740</td>
<td>23 838</td>
</tr>
<tr>
<td>Hjemmetjenester</td>
<td>161 998</td>
<td>41 615</td>
<td>17 926</td>
<td>24 782</td>
<td>35 623</td>
<td>28 342</td>
<td>13 710</td>
</tr>
<tr>
<td>Institusjonsbeboere</td>
<td>41 693</td>
<td>1 722</td>
<td>2 973</td>
<td>5 534</td>
<td>9 938</td>
<td>11 398</td>
<td>10 128</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Brukergruppe</th>
<th>67-74</th>
<th>75-79</th>
<th>80-84</th>
<th>85-89</th>
<th>Over 90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Befolkningen, absolutte tall</td>
<td>253 271</td>
<td>146 709</td>
<td>115 715</td>
<td>61 709</td>
<td>27 639</td>
</tr>
<tr>
<td>Mottar ikke tjenester</td>
<td>91,7</td>
<td>79,3</td>
<td>60,6</td>
<td>35,6</td>
<td>13,8</td>
</tr>
<tr>
<td>Hjemmetjenester</td>
<td>7,1</td>
<td>16,9</td>
<td>30,8</td>
<td>45,9</td>
<td>49,6</td>
</tr>
<tr>
<td>Institusjonsbeboere</td>
<td>1,2</td>
<td>3,8</td>
<td>8,6</td>
<td>18,5</td>
<td>36,6</td>
</tr>
</tbody>
</table>

Det er liten tvil om at andelen som har behov for hjelp og er helt hjelpetrengende vokser kraftig med alder. Denne tabellen gir derfor et godt grunnlag for å anslå hvor stor andelen av personene i utvalget som er syke og/eller har behov for hjelp for å klare hverdagen. Litt forenklet kan sammenfatte de to siste radene i tabell 2.2 ved påstandene:

- Andelen i institusjoner blant alle bosatte dobles for hver aldersgruppe
- Andelen som mottar hjemmetjenester blant alle bosatte fordobles for hver aldersgruppe inntil 85 - 89 år. Andelen er den samme blant de over 90 år som blant de mellom 85 og 89 år

Behovet for hjelp blant de over 60 år kan også formuleres ved utsagnene:

- En av ti i alderen 60 og 69 år har behov for hjelp
- En av fem i alderen 70 til 79 har behov for hjelp
- Minst hver annen mellom 80 og 89 år har behov for hjelp
- Ni av ti over 90 år har behov for hjelp

Tabell 2.3. Antall personer i Norge 60 år og eldre fordelt etter fylker, kjønn og aldersgrupper

<table>
<thead>
<tr>
<th>Fylke</th>
<th>Totalt Menn</th>
<th>Totalt Kvinner</th>
<th>Totalt Menn</th>
<th>Totalt Kvinner</th>
<th>Totalt Menn</th>
<th>Totalt Kvinner</th>
<th>Totalt Menn</th>
<th>Totalt Kvinner</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60 - 69 år</td>
<td>70 - 79 år</td>
<td>80 - 89 år</td>
<td>90 år og eldre</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mens</td>
<td>Kvinner</td>
<td>Mens</td>
<td>Kvinner</td>
<td>Mens</td>
<td>Kvinner</td>
<td>Mens</td>
<td>Kvinner</td>
</tr>
<tr>
<td>Hele landet</td>
<td>361 907</td>
<td>176 130</td>
<td>185 777</td>
<td>305 803</td>
<td>134 850</td>
<td>170 953</td>
<td>177 424</td>
<td>61 989</td>
</tr>
<tr>
<td>01 Østfold</td>
<td>22 135</td>
<td>10 670</td>
<td>11 465</td>
<td>18 936</td>
<td>8 403</td>
<td>10 533</td>
<td>10 401</td>
<td>6 951</td>
</tr>
<tr>
<td>02 Akershus</td>
<td>37 600</td>
<td>18 142</td>
<td>19 458</td>
<td>28 836</td>
<td>12 963</td>
<td>15 873</td>
<td>14 013</td>
<td>8 851</td>
</tr>
<tr>
<td>03 Oslo</td>
<td>34 748</td>
<td>16 279</td>
<td>18 469</td>
<td>31 042</td>
<td>12 664</td>
<td>18 378</td>
<td>20 827</td>
<td>14 424</td>
</tr>
<tr>
<td>04 Hedmark</td>
<td>17 377</td>
<td>8 463</td>
<td>8 914</td>
<td>16 299</td>
<td>7 290</td>
<td>9 009</td>
<td>9 161</td>
<td>3 483</td>
</tr>
<tr>
<td>05 Oppland</td>
<td>16 854</td>
<td>8 206</td>
<td>8 648</td>
<td>15 079</td>
<td>7 178</td>
<td>8 921</td>
<td>8 527</td>
<td>3 209</td>
</tr>
<tr>
<td>06 Buskerud</td>
<td>19 576</td>
<td>9 703</td>
<td>10 273</td>
<td>16 715</td>
<td>7 454</td>
<td>9 261</td>
<td>9 745</td>
<td>3 446</td>
</tr>
<tr>
<td>07 Vestfold</td>
<td>18 538</td>
<td>8 829</td>
<td>9 709</td>
<td>15 579</td>
<td>6 983</td>
<td>8 596</td>
<td>8 788</td>
<td>2 974</td>
</tr>
<tr>
<td>08 Telemark</td>
<td>13 928</td>
<td>6 766</td>
<td>7 162</td>
<td>12 641</td>
<td>5 469</td>
<td>7 172</td>
<td>7 642</td>
<td>2 767</td>
</tr>
<tr>
<td>09 Aust-Agder</td>
<td>8 476</td>
<td>4 246</td>
<td>4 230</td>
<td>6 541</td>
<td>2 875</td>
<td>3 666</td>
<td>4 095</td>
<td>1 434</td>
</tr>
<tr>
<td>10 Vest-Agder</td>
<td>12 465</td>
<td>5 993</td>
<td>6 472</td>
<td>10 323</td>
<td>4 469</td>
<td>5 854</td>
<td>6 013</td>
<td>2 067</td>
</tr>
<tr>
<td>11 Rogaland</td>
<td>26 888</td>
<td>13 129</td>
<td>13 759</td>
<td>21 206</td>
<td>9 421</td>
<td>11 785</td>
<td>12 815</td>
<td>4 502</td>
</tr>
<tr>
<td>12 Hordaland</td>
<td>34 032</td>
<td>16 520</td>
<td>17 512</td>
<td>28 238</td>
<td>12 291</td>
<td>15 947</td>
<td>17 138</td>
<td>5 950</td>
</tr>
<tr>
<td>14 Sogn og Fjordane</td>
<td>8 675</td>
<td>4 390</td>
<td>4 285</td>
<td>7 648</td>
<td>3 504</td>
<td>4 144</td>
<td>4 929</td>
<td>1 856</td>
</tr>
<tr>
<td>15 Møre og Romsdal</td>
<td>19 583</td>
<td>9 642</td>
<td>9 941</td>
<td>17 921</td>
<td>8 023</td>
<td>9 898</td>
<td>10 707</td>
<td>3 873</td>
</tr>
<tr>
<td>16 Sør-Trøndelag</td>
<td>20 920</td>
<td>10 209</td>
<td>10 711</td>
<td>17 967</td>
<td>7 967</td>
<td>10 000</td>
<td>10 118</td>
<td>3 540</td>
</tr>
<tr>
<td>17 Nord-Trøndelag</td>
<td>10 921</td>
<td>5 452</td>
<td>5 469</td>
<td>9 390</td>
<td>4 305</td>
<td>5 085</td>
<td>5 415</td>
<td>1 975</td>
</tr>
<tr>
<td>18 Nordland</td>
<td>20 600</td>
<td>10 219</td>
<td>10 381</td>
<td>17 302</td>
<td>7 619</td>
<td>9 683</td>
<td>9 933</td>
<td>3 498</td>
</tr>
<tr>
<td>19 Troms</td>
<td>12 211</td>
<td>6 184</td>
<td>6 027</td>
<td>9 545</td>
<td>4 285</td>
<td>5 260</td>
<td>5 065</td>
<td>1 695</td>
</tr>
<tr>
<td>20 Finnmark</td>
<td>5 980</td>
<td>3 088</td>
<td>2 892</td>
<td>4 595</td>
<td>2 077</td>
<td>2 518</td>
<td>2 092</td>
<td>7 05</td>
</tr>
</tbody>
</table>

I tabell 2.3 har vi presentert en aldersfordeling for de 60 år fordelt på menn og kvinner og etter fylker. For å knytte litt forbindelse med aldersfordelingen i tabell 2.3 er det 258 730 personer i aldersgruppa 60 til 66 år slik at det 93 177 personer i alt i aldersgruppa 67-69 år.
3. Utvalgsplan

Undersøkelsen skal gjennomføres som en kombinert intervju og postal undersøkelse. Norge har forpliktet seg til å levere om lag 350 svar til undersøkelsen. Dersom en gjennomfører undersøkelsen i aldersgruppa 60 til 89 år og bruker den andelen hjelpetrengende som vi formulerete i ballpunktene ovenfor tabell 2.3 kan følgende tabell stilles opp når vi skiller mellom de som trenger hjelp og de som klarer seg selv.

Tabell 3.1. Beregnet fordeling mellom hjelpetrengende og ikke hjelpetrengende blant bosatte mellom 60 og 89 år

<table>
<thead>
<tr>
<th>Gruppe</th>
<th>Totalt 60 - 89 år</th>
<th>60-69 år</th>
<th>70-79 år</th>
<th>80-89 år</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alle</td>
<td>845 134</td>
<td>361 907</td>
<td>305 803</td>
<td>177 424</td>
</tr>
<tr>
<td>Klarer seg selv</td>
<td>659 070</td>
<td>325 716</td>
<td>244 642</td>
<td>88 712</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>186 064</td>
<td>36 191</td>
<td>61 161</td>
<td>88 712</td>
</tr>
</tbody>
</table>

Vi legger til en antakelse om at svarprosenten i disse gruppene er som vist i tabell 3.2. Det betyr at en antar at svarprosenten synker med alder og at den halveres når en person trenger hjelp.

Tabell 3.2. Antatt svarprosent etter alder og hjelpebehov

<table>
<thead>
<tr>
<th>Gruppe</th>
<th>60-69 år</th>
<th>70-79 år</th>
<th>80-89 år</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klarer seg selv</td>
<td>60</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>30</td>
<td>25</td>
<td>20</td>
</tr>
</tbody>
</table>

3.1. Likt antall svar i hvert stratum

La oss anta at vi ønsker like mange svar, dvs. 60 i hver av de seks gruppene i tabell 3.2. Da må det trekkes det antallet som er stilt opp i tabell 3.3. Vi må ta hensyn til det er den laveste trekkprosenten som gjelder siden vi ikke på trekketidspunktet ikke vet hvilke personer som trenger hjelp.

Tabell 3.3. Forslag til fordeling av utvalget etter alder når vi ikke på forhånd til hjelpebehovet

<table>
<thead>
<tr>
<th>Alder</th>
<th>Totalt 60 - 89 år</th>
<th>60-69 år</th>
<th>70-79 år</th>
<th>80-89 år</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antall i utvalget</td>
<td>3 800</td>
<td>2 000</td>
<td>1 200</td>
<td>600</td>
</tr>
<tr>
<td>Klarer seg selv</td>
<td>3 060</td>
<td>1 800</td>
<td>960</td>
<td>300</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>740</td>
<td>200</td>
<td>240</td>
<td>300</td>
</tr>
</tbody>
</table>

Husk at det er kun den første linja i tabell 3.3 som utvalget kan fordeles etter siden vi ikke på forhånd vet hvem som klarer seg selv og hvem som trenger hjelp. Viss utvalget trekkes på dette viset kan vi forvente et svarinngang slik tabell 3.4 viser.
Tabell 3.4. Forventet svarinngang etter alder og behov for hjelp

<table>
<thead>
<tr>
<th>Alder</th>
<th>Totalt 60 - 89 år</th>
<th>60-69 år</th>
<th>70-79 år</th>
<th>80-89 år</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antall i utvalget</td>
<td>1 860</td>
<td>1 140</td>
<td>540</td>
<td>180</td>
</tr>
<tr>
<td>Klarer seg selv</td>
<td>1 680</td>
<td>1 080</td>
<td>480</td>
<td>120</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>180</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

En slik utvalgsplan vil gi alt for mange svar blant de som klarer seg selv - altså kan en blant de som ikke er brukere av tjenester fra pleie og omsorg fjerne annen hver i eldste aldersgruppe, sju av åtte i mellomste aldersgruppe og 17 av 18 i den yngste aldersgruppa.

Denne strategien kan forbedres radikalt dersom vi kjente til hvilke personer som trenger hjelp. Dette kan oppnås ved at vi trekker et utvalg av representutive kommuner først og ber om å få oversendt liste over de innbyggerne, fødselsnumre, som er på institusjon eller bruker hjemmetjenestene. Da kan vi redusere det utvalget som trekkes ut til undersøkelsen til under en tredjedel.

Tabell 3.5. Forslag til fordeling av utvalget etter alder når en kjenner til hjelpebehovet på forhånd.

<table>
<thead>
<tr>
<th>Alder</th>
<th>Totalt 60 - 89 år</th>
<th>60-69 år</th>
<th>70-79 år</th>
<th>80-89 år</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antall i utvalget</td>
<td>1 110</td>
<td>300</td>
<td>360</td>
<td>450</td>
</tr>
<tr>
<td>Klarer seg selv</td>
<td>370</td>
<td>100</td>
<td>120</td>
<td>150</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>740</td>
<td>200</td>
<td>240</td>
<td>300</td>
</tr>
</tbody>
</table>

3.2. Proporsjonal allokering - kun sikre minst 350 svar
Dersom en velger en strategi der en kun vil sikre at svarinngangen er minst 350 må en trekke utvalget slik som vist i tabell 3.6. De to nederste linjene i tabellen er en antatt fordeling etter hjelpebehov.

Tabell 3.6. Fordeling etter alder og hjelpebehov når en trekker proporsjonalt utvalg.

<table>
<thead>
<tr>
<th>Alder</th>
<th>Totalt 60 - 89 år</th>
<th>60-69 år</th>
<th>70-79 år</th>
<th>80-89 år</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antall i utvalget</td>
<td>745</td>
<td>319</td>
<td>270</td>
<td>156</td>
</tr>
<tr>
<td>Klarer seg selv</td>
<td>643</td>
<td>287</td>
<td>216</td>
<td>78</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>102</td>
<td>32</td>
<td>54</td>
<td>78</td>
</tr>
</tbody>
</table>

I tabell 3.7 har vi på grunnlag av antakelsene om svarprosent og fordelingen av utvalget i beregnet svarinngangen fordelt etter alder og hjelpebehovet.

Tabell 3.7. Forventet svarinngang etter alder og behov for hjelp ved proporsjonal trekking

<table>
<thead>
<tr>
<th>Alder</th>
<th>Totalt 60 - 89 år</th>
<th>60-69 år</th>
<th>70-79 år</th>
<th>80-89 år</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antall i utvalget</td>
<td>351</td>
<td>181</td>
<td>122</td>
<td>48</td>
</tr>
<tr>
<td>Klarer seg selv</td>
<td>312</td>
<td>172</td>
<td>108</td>
<td>32</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>39</td>
<td>9</td>
<td>14</td>
<td>16</td>
</tr>
</tbody>
</table>

25
Vi ser at en utvalgsplan der vi kun sikrer at det totale antallet som svarer er over 350 gir en svært skjev svarinngang. De fleste som svarer vil klare seg uten hjelp.

3.3. Anbefaling

Problemet med proporsjonal allokering er at svarutvalget ville inneholde få personer som er hjelpetrengende. Det betyr at utvalget kan vise seg å være lite nyttig for formålet med undersøkelsen.

Vi forslår at det trekkes et antall kommuner som kontaktes for å hente inn liste over de som trenger hjelp i betydningen mottar hjemmetjenester eller er beboere på institusjon og at det trekkes et stratifisert utvalg personer i disse kommunene. For å sikre et tilstrekkelig stort svarutvalg foreslå vi også at fordelingen i tabell 3.5 økes til et totalutvalg på 1 500 personer slik som tabell 3.8 viser.

Tabell 3.8. Forslag til fordeling av bruttoutvalget etter alder og hjelpebehov

<table>
<thead>
<tr>
<th>Alder</th>
<th>Totalt 60 - 89 år</th>
<th>60-69 år</th>
<th>70-79 år</th>
<th>80-89 år</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antall i utvalget</td>
<td>1 500</td>
<td>405</td>
<td>486</td>
<td>608</td>
</tr>
<tr>
<td>Klarer seg selv</td>
<td>500</td>
<td>135</td>
<td>162</td>
<td>203</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>1 000</td>
<td>270</td>
<td>324</td>
<td>405</td>
</tr>
</tbody>
</table>

4. Opplegget for å trekke utvalget

4.1. Trekke et representativt utvalg av kommuner

### Tabell 4.1. Prøvekommuner i IPLOS

<table>
<thead>
<tr>
<th>Kommuner</th>
<th>Befolkning</th>
<th>IT fagsystem</th>
<th>Utvalg</th>
<th>Kandidat</th>
<th>Klasse</th>
<th>Trukket</th>
</tr>
</thead>
<tbody>
<tr>
<td>0105 Sarpsborg</td>
<td>49 044</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>5</td>
<td>Y</td>
</tr>
<tr>
<td>0128 Rakkestad</td>
<td>7 217</td>
<td>JA</td>
<td>NEI</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>0213 Ski</td>
<td>26 155</td>
<td>JA</td>
<td>NEI</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>0214 Ås</td>
<td>14 227</td>
<td>JA</td>
<td>NEI</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>0219 Bærum</td>
<td>102 529</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>0301 Bygdøy/Frogner</td>
<td>20 455</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>7</td>
<td>Y</td>
</tr>
<tr>
<td>0412 Ringsaker</td>
<td>31 830</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>3</td>
<td>Y</td>
</tr>
<tr>
<td>0429 Åmot</td>
<td>4 389</td>
<td>JA</td>
<td>NEI</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>0501 Lillehammer</td>
<td>24 946</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>0541 Etnedal</td>
<td>1 427</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>1</td>
<td>Y</td>
</tr>
<tr>
<td>0602 Drammen</td>
<td>56 444</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>0604 Kongsberg</td>
<td>22 908</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>0719 Andebu</td>
<td>4 899</td>
<td>NEI</td>
<td>NEI</td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>0806 Skien</td>
<td>50 272</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>0814 Bamble</td>
<td>14 170</td>
<td>NEI</td>
<td>NEI</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>0815 Kragerø</td>
<td>10 559</td>
<td>JA</td>
<td>NEI</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1127 Randaberg</td>
<td>8 998</td>
<td>JA</td>
<td>NEI</td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>1124 Sola</td>
<td>19 538</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>5</td>
<td>Y</td>
</tr>
<tr>
<td>1130 Strand</td>
<td>10 298</td>
<td>NEI</td>
<td>JA</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>1702 Steinkjer</td>
<td>20 417</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>4</td>
<td>Y</td>
</tr>
<tr>
<td>1703 Namsos</td>
<td>12 380</td>
<td>JA</td>
<td>NEI</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1719 Levanger</td>
<td>17 700</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>5</td>
<td>Y</td>
</tr>
<tr>
<td>1742 Grong</td>
<td>2 530</td>
<td>NEI</td>
<td>NEI</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1744 Overhalla</td>
<td>3 606</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>1</td>
<td>Y</td>
</tr>
<tr>
<td>1901 Harstad</td>
<td>23 161</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1911 Kvæfjord</td>
<td>3 102</td>
<td>JA</td>
<td>JA</td>
<td>X</td>
<td>6</td>
<td>Y</td>
</tr>
<tr>
<td>1925 Sorreisa</td>
<td>3 312</td>
<td>JA</td>
<td>NEI</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2002 Vardø</td>
<td>2 496</td>
<td>NEI</td>
<td>NEI</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2024 Berlevåg</td>
<td>1 193</td>
<td>NEI</td>
<td>NEI</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2028 Båtsfjord</td>
<td>2 404</td>
<td>NEI</td>
<td>NEI</td>
<td></td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

De ni kommunene som er markert med Y er trukket ut blant IPLOS prøvekommunene. I tabell 4.2 er disse stilt opp etter kommuneklasse sammen med uttrukne tilleggskommuner. Kommunenummer i parentes betyr at dersom opprinnelig kommune ikke har IT fagsystem eller nekter å delta undersøkes det om kommunen i parentes vi delta.
Tabell 4.2. Uttrukne prøvekommuner i IPLOS med tillegskommuner ellers

<table>
<thead>
<tr>
<th>Kommuneklasse</th>
<th>Trukket ut, kommunenummer</th>
<th>Tillegskommuner, kommunenummer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Primærnæring</td>
<td>0541, 1744</td>
<td>1431 (1445), 1828 (1915)</td>
</tr>
<tr>
<td>2. Blandet landbruk og industri</td>
<td></td>
<td>0513 (0522), 1014 (1119)</td>
</tr>
<tr>
<td>3. Industri</td>
<td>0412</td>
<td>1224 (1424), 1711 (1714)</td>
</tr>
<tr>
<td>4. Blandet tjenesteyting og industri, mindre sentralt</td>
<td>1703</td>
<td>0819 (0821), 1219 (1401)</td>
</tr>
<tr>
<td>5. Blandet tjenesteyting og industri, sentralt</td>
<td>0105, 1124, 1719</td>
<td>0701 (0704)</td>
</tr>
<tr>
<td>6. Tjenesteyting, mindre sentralt</td>
<td>1911</td>
<td>2004 (2020)</td>
</tr>
<tr>
<td>7. Tjenesteyting, sentralt</td>
<td>0301 Bygdøy/Frogner</td>
<td>0230 (0231)</td>
</tr>
</tbody>
</table>

I tabell 4.3 har vi stilt opp kommunene etter landsdel.

Tabell 4.3. Uttrukne prøvekommuner og tillegskommuner fordelt etter landsdel

<table>
<thead>
<tr>
<th>Kommuneklasse</th>
<th>Trukket ut, kommunenummer</th>
<th>Tillegskommuner, kommunenummer</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Oslo og Akershus</td>
<td>0301 Bygdøy/Frogner</td>
<td>0230 (0231)</td>
</tr>
<tr>
<td>B. Hedmark og Oppland</td>
<td>0412, 0541</td>
<td>0513 (0522)</td>
</tr>
<tr>
<td>C. Sør-Østlandet</td>
<td>0105</td>
<td>0701 (0704), 0819 (0821)</td>
</tr>
<tr>
<td>D. Agder og Rogaland</td>
<td>1124</td>
<td>1014 (1119)</td>
</tr>
<tr>
<td>E. Vestlandet</td>
<td></td>
<td>1219 (1401), 1224 (1424), 1431 (1445)</td>
</tr>
<tr>
<td>F. Trøndelag</td>
<td>1703, 1719, 1744</td>
<td>1711 (1714)</td>
</tr>
<tr>
<td>G. Nord-Norge</td>
<td>1911</td>
<td>1828 (1915), 2004 (2020)</td>
</tr>
</tbody>
</table>

Til slutt i tabell 4.4. på neste side har vi listet opp kommunene med folketallet per 1. januar 2003.
Tabell 4.4. Uttrukne kommuner med befolkningstall per 1. januar 2003

<table>
<thead>
<tr>
<th>Kommune</th>
<th>IPLOS</th>
<th>Klasse</th>
<th>Landsdel</th>
<th>Befolkning, 01.01.03</th>
</tr>
</thead>
<tbody>
<tr>
<td>0105 Sarpsborg</td>
<td>X</td>
<td>5</td>
<td>C</td>
<td>49 044</td>
</tr>
<tr>
<td>0230 Lørenskog (0231 Skedsmo)</td>
<td>7</td>
<td>A</td>
<td></td>
<td>30 220 (40 676)</td>
</tr>
<tr>
<td>0301 Bygdøya/Frogner</td>
<td>X</td>
<td>7</td>
<td>A</td>
<td>29 455</td>
</tr>
<tr>
<td>0412 Ringsaker</td>
<td>3</td>
<td>B</td>
<td></td>
<td>31 830</td>
</tr>
<tr>
<td>0513 Skjåk (0522 Gausdal)</td>
<td>2</td>
<td>B</td>
<td></td>
<td>2 399 (6 189)</td>
</tr>
<tr>
<td>0541 Etnedal</td>
<td>X</td>
<td>1</td>
<td>B</td>
<td>1 427</td>
</tr>
<tr>
<td>0701 Horten (0704 Tønsberg)</td>
<td>5</td>
<td>C</td>
<td></td>
<td>24 557 (35 656)</td>
</tr>
<tr>
<td>0819 Nome (0821 Sauherad)</td>
<td>4</td>
<td>C</td>
<td></td>
<td>6 579 (4 363)</td>
</tr>
<tr>
<td>1014 Vennesla (1119 Hå)</td>
<td>2</td>
<td>D</td>
<td></td>
<td>12 346 (14 417)</td>
</tr>
<tr>
<td>1124 Sola</td>
<td>X</td>
<td>5</td>
<td>D</td>
<td>19 538</td>
</tr>
<tr>
<td>1219 Bømlo (1401 Flora)</td>
<td>4</td>
<td>E</td>
<td></td>
<td>10 867 (11 392)</td>
</tr>
<tr>
<td>1224 Kvinnherad (1424 Årdal)</td>
<td>3</td>
<td>E</td>
<td></td>
<td>13 157 (5 661)</td>
</tr>
<tr>
<td>1431 Jølster (1445 Gloppen)</td>
<td>1</td>
<td>E</td>
<td></td>
<td>2 974 (5 739)</td>
</tr>
<tr>
<td>1711 Meråker (1714 Stjørdal)</td>
<td>3</td>
<td>F</td>
<td></td>
<td>2 556 (18 940)</td>
</tr>
<tr>
<td>1702 Steinkjer</td>
<td>X</td>
<td>4</td>
<td>F</td>
<td>20 417</td>
</tr>
<tr>
<td>1719 Levanger</td>
<td>X</td>
<td>5</td>
<td>F</td>
<td>17 700</td>
</tr>
<tr>
<td>1744 Overhalla</td>
<td>X</td>
<td>1</td>
<td>F</td>
<td>3 606</td>
</tr>
<tr>
<td>1828 Nesna (1915 Bjarkøy)</td>
<td>1</td>
<td>G</td>
<td></td>
<td>1 838 (533)</td>
</tr>
<tr>
<td>1911 Kvæfjord</td>
<td>X</td>
<td>6</td>
<td>G</td>
<td>3 102</td>
</tr>
<tr>
<td>2004 Hammerfest (2020 Porsanger)</td>
<td>6</td>
<td>G</td>
<td></td>
<td>9 076 (4 294)</td>
</tr>
</tbody>
</table>

Vi kan velge flere mulige fordeler av de personene som skal trekkes i de kommunene som det oppnås avtale med. I tabell 4.5 har vi sett på to mulige ytterpunkter, nemlig henholdsvis proporsjonal allokering og likt antall uttrukket i hver kommune sammen med en mellomting der vi deler kommunene inn i tre grupper etter folkningsstørrelsen - under 5 000 (små), mellom 5 000 og 20 000 innbyggere (middels) og over 20 000 innbyggere (store).
Tabell 4.5. Proporsjonal allokering, likt antall i hver kommune og forslaget til allokering

<table>
<thead>
<tr>
<th>Kommune</th>
<th>Befolkning, 01.01.03</th>
<th>Proporsjonal</th>
<th>Likt antall</th>
<th>Forslag</th>
</tr>
</thead>
<tbody>
<tr>
<td>0105 Sarpsborg</td>
<td>49 044</td>
<td>258</td>
<td>75</td>
<td>150</td>
</tr>
<tr>
<td>0230 Lørenskog</td>
<td>30 220</td>
<td>159</td>
<td>75</td>
<td>150</td>
</tr>
<tr>
<td>0301 Bygdøy/Frogner</td>
<td>20 455</td>
<td>155</td>
<td>75</td>
<td>150</td>
</tr>
<tr>
<td>0412 Ringsdøyr</td>
<td>31 830</td>
<td>168</td>
<td>75</td>
<td>150</td>
</tr>
<tr>
<td>0513 Skjåk</td>
<td>2 399</td>
<td>13</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>0541 Etneal</td>
<td>1 427</td>
<td>8</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>0701 Horten</td>
<td>24 557</td>
<td>129</td>
<td>75</td>
<td>150</td>
</tr>
<tr>
<td>0819 Nome</td>
<td>6 579</td>
<td>35</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>1014 Vennesla</td>
<td>12 346</td>
<td>65</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>1124 Sola</td>
<td>19 538</td>
<td>103</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>1219 Bømlo</td>
<td>10 867</td>
<td>57</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>1224 Kvinnherad</td>
<td>13 157</td>
<td>69</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>1431 Jølster</td>
<td>2 974</td>
<td>16</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>1711 Meråker</td>
<td>2 556</td>
<td>13</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>1702 Steinkjer</td>
<td>20 417</td>
<td>65</td>
<td>75</td>
<td>150</td>
</tr>
<tr>
<td>1719 Levanger</td>
<td>17 700</td>
<td>93</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>1744 Overhalla</td>
<td>3 606</td>
<td>19</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>1828 Nesna</td>
<td>1 838</td>
<td>10</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>1911 Kvaerfjord</td>
<td>3 102</td>
<td>16</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>2004 Hammerfest</td>
<td>9 076</td>
<td>48</td>
<td>75</td>
<td>75</td>
</tr>
</tbody>
</table>

Det gir til sammen 1 525 personer i bruttoutvalget dersom akkurat disse 20 kommunene blir det endelige utvalget av kommuner.

4.2. Trekke personer
Nøkkelen for å trekke personer følger av fordelingen etter alder og hjelpebehov gitt ved tabell 4.6.

Tabell 4.6. Prosentfordeling av utvalget innen hver kommune.

<table>
<thead>
<tr>
<th>Hjelpebehov</th>
<th>Totalt</th>
<th>60 - 69 år</th>
<th>70 - 79 år</th>
<th>80 -89 år</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totalt</td>
<td>100</td>
<td>27</td>
<td>32</td>
<td>41</td>
</tr>
<tr>
<td>Klarer seg selv</td>
<td>33</td>
<td>9</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>67</td>
<td>18</td>
<td>22</td>
<td>27</td>
</tr>
</tbody>
</table>

Viss vi bruker denne fordelingen når totalen er henholdsvis 25, 75 og 150 finner vi antallet personer som skal trekkes i hver av de uttrukne kommunene, se tabell 4.7. Trekkingen gjennomføres da ved at en innen hvert stratum sorterer personene etter sivil status, kjønn, bosted(grunnkrets) og alder og trekker systematisk på grunnlag av at en beregner steglengden for hvert stratum gitt ved antall personer i alt dividert med antallet som skal trekkes.
Tabell 4.7. Antallet personer som trekkes i hvert stratum for små, middels og store kommuner.

<table>
<thead>
<tr>
<th>Hjelpebehov</th>
<th>Små kommuner</th>
<th></th>
<th>Middels kommuner</th>
<th></th>
<th>Store kommuner</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Totalt 60-69</td>
<td>70-79</td>
<td>80-89</td>
<td>Totalt 60-69</td>
<td>70-79</td>
<td>80-89</td>
</tr>
<tr>
<td>Totalt</td>
<td>25</td>
<td>7</td>
<td>8</td>
<td>10</td>
<td>75</td>
<td>21</td>
</tr>
<tr>
<td>Klarer seg selv</td>
<td>8</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td>Trenger hjelp</td>
<td>17</td>
<td>5</td>
<td>5</td>
<td>7</td>
<td>50</td>
<td>14</td>
</tr>
</tbody>
</table>

5. Referanser


KOSTRA2002: *Grunntabeller om pleie- og omsorg i 200. SSB web*

Befolkningsstatistikk 2003 *Statistikkbanken. SSB web*
Undersøkelse om eldres livskvalitet

Bakgrunn
For noen uker siden var Statistisk sentralbyrå (SSB) i kontakt med «Kontaktperson» ad. deltakelse i en undersøkelse om eldres livskvalitet. SSB takker for at de viste interesse for å bidra i undersøkelsen, og gir her flere utfyllende opplysninger om gjennomføring og forhold til taushetsplikt og personvern. Det ligger også ved et skriv fra Menighetssøsterhjemmets høgskole som er ansvarlige for gjennomføring av undersøkelsen i Norge.

SSB har tatt på seg noen administrative oppgaver i forbindelse med undersøkelsen, så som rådgivning i forbindelse med skjemautforming, trekking av utvalg og det praktiske arbeidet med utsending, mottak og registrering av skjemaene. Resultatene vil derimot bli utarbeidet og stå for Menighetssøsterhjemmets høgskoles regning.

Opplegg og tidsrammer
Vi har allerede skissert opplegget for gjennomføring av undersøkelsen for dem på telefon, og vil kort gjengi planene her. Undersøkelsen skal omfatte personer over 60 år, og det skilles mellom "registrert hos kommunen" på den ene siden, og "friske og selvhjelpne" på den andre siden. Med "registrert hos kommunen" menes personer som er institusjonsboere eller som er mottakere av hjemmebaserte tjenester. For å skille mellom disse gruppene, vil vi nå i første omgang be om å få tilsendt fødselsnumrene til de personene som er registrert som institusjonsboere og mottakere av hjemmebaserte tjenester fra kommunen. Vi ønsker å motta fødselsnumrene på diskett. Deretter vil SSB kople disse numrene mot det sentrale folkeregisteret, og trekke et utvalg blant de som ikke er "registrert hos kommunen". Disse personene vil motta skjema i posten. Blant de som er "registrert hos kommunen", vil vi trekke et utvalg på «Ant_JO» personer. Liste over disse personene vil bli sendt i retur til kommunen, og de er utgangspunkt for intervju. Lista med kandidater for intervju vil helt sikkert inneholde navn på personer som av ulike årsaker kan utelukkes som intervjuobjekt (f.eks. nedsatt hørsel, demens osv.). De strykes fra lista, og kontaktes ikke for intervju. SSB anser det som tilstrekkelig å få gjennomført intervju med 25 - 30 prosent av de som står på lista. Det er viktig å påpeke at det er frivillig å delta i intervju-undersøkelsen.

Det er altså kommunen som vil få ansvaret for å gjennomføre intervjuene, og kommunen vil motta en godtgjørelse på mellom 250 og 300 kroner for hvert fullførte intervju. En noe mindre godtgjørelse vil bli ytt der intervjuene kanskje måtte avbrytes og skjemaene bare delvis er utfylt. Kommunen står fritt til å velge ut intervjuere, men det er ønskelig at intervjuerne er minst 18 år.

Kommunene vil senest i andre halvdel av februar motta lister over intervjuobjekt fra SSB. Det er ønskelig at intervjuene skjer så snart som mulig og at skjemaene returneres SSB i løpet av første uka i mars.
Taushetsplikt og personvern
Alle som arbeider i Statistisk sentralbyrå har taushetsplikt. Undersøkelsen gjennomføres etter lov pålagte regler og SSB er underlagt kontroll både av Datatilsynet og vårt eget personvernombud. Fødslenumrene som SSB ber om å få tilsendt nå, vil bli slettet to måneder etter at vi har trukket utvalgene.


Dersom de som utfører intervjuene er ansatt i kommunen, vil den taushetsplikten som de allerede har underskrevet, også gjelde i forbindelse med intervjuene. Uansett ønsker SSB at alle som gjennomfører intervjuene underskriver taushetserklæring fra SSB. Denne erklæringen blir sendt ut sammen med skjemaene.

Kontaktpersoner og adresser
Dersom noe er uklart, eller hvis det er spørsmål om det praktiske rundt undersøkelsen, kan du kontakte seksjonssjef Dagfinn Sve i Statistisk sentralbyrå (telefon: 62 88 52 61, e-post: dagfinn.sve@ssb.no). Dersom det er spørsmål til selve undersøkelsen, kan du kontakte Menighetssøsterhjemmest høgskole ved høgskolelektor/dr. grads stipendiat Liv Halvorsrud, telefon 22 98 63 09, liv.halvorsrud@oslo.msh eller prosjektleder DrPH Mary Kalfoss, telefon 64 94 09 22, mary.kalfoss@c2i.net. Generelle spørsmål vedrørende personvern i SSB kan rettes til SSBs personvernombud, tel 21 09 00 00 eller e-post personvernombud@ssb.no.


Med vennlig hilsen

[Dagfinn Sve]

Dagfinn Sve
seksjonssjef

Vedlegg: Informasjonsskriv fra Menighetssøsterhjemmets høgskole
Invitasjon til å delta i en internasjonal forskningsstudie
Norge ved Menighetssøsterhjemmets Høgskole i Oslo, er et av 23 land som deltar i en internasjonal studie om eldres livskvalitet. Prosjektet er støttet av Verdens Helse Organisasjon (WHO) og blir finansiert av EU. Alle syke og friske eldre over 60 år kan delta.

Hensikten med studien er å øke forståelsen for hvilke faktorer som påvirker opplevelsen av livskvalitet hos friske og syke eldre. Dette brukes til å utvikle et spørreskjema som kan brukes til å måle livskvalitet hos eldre over 60 år. Studien er i den fasen hvor spørreskjema sammen med andre skjema skal utprøves blant en gruppe friske og syke eldre. Temaene i spørreskjemaet er helse, livskvalitet, om det å bli eldre og bakgrunnsinformasjon.

Statistisk sentralbyrå (SSB) hjelper til med trekking av utvalg og administrering av studien. Til studien ber vi kommunene om hjelp til å finne fram til hvilke personer som bor på institusjon, får kommunal hjemmesykepleie og/eller hjemmehjelp i din kommune. Det står mer om det konkrete opplegget i brevet fra SSB. Et antall institusjonsbeboere og brukere av hjemmesykepleie/hjemmehjelp vil bli trukket ut, og vi ber om at beboeren eller brukeren intervjues. For hvert utfylte skjema gis det en godtgjøring på mellom 250 og 300 kroner. For skjema som er delvis utfylt, vil det bli ytt en mindre godtgjørelse.

Alle opplysninger Statistisk sentralbyrå mottar, er underlagt taushetsplikt, og resultater fra undersøkelsen vil ikke bli offentliggjort på en slik måte at de kan føres tilbake til enkeltpersoner. Statistisk sentralbyrå kan levere ut data til bruk for forskning og statistikk i tråd med Datatilsynets godkjenning. Opplysningene skal bare brukes til å lage statistikk. Alle data er anonymiserte før de oversendes Menighetssøsterhjemmets Høgskole.

Dersom du har spørsmål om undersøkelsen, kan du kontakte høgskolelektor/dr. gradsstipendiat Liv Halvorsrud, telefon 22 98 63 09, liv.halvorsrud@oslo.msh eller prosjektleder, DrPH Mary Kalfoss, telefon 64 94 09 22, mary.kalfoss@c2i.net

Vi håper på et godt samarbeide og takker på forhånd for hjelpen.

Med vennlig hilsen

Mary Kalfoss og Liv Halvorsrud
Undersøkelse om eldres livskvalitet

Vi viser til tidligere korrespondanse og innsending av opplysninger om institusjonsbeboere og mottakere av hjemmebaserte tjenester. Vi vil igjen takke for at dere vil delta i arbeidet med undersøkelsen.

Det som skal gjennomføres nå, er intervjuene. Vedlagt følger liste over intervjukandidater, intervjuerkjem og skjema for taushetserklæring.

Gjennomføring av intervju
Når den som skal intervjuer møter opp hos intervjuobjektet, må intervjueren presentere seg og kort fortelle om at vedkommende er trukket ut til en intervjuundersøkelse. Dersom kommunen kan lage et slags brev/kort som identifiserer intervjueren og viser at han/hun er rekruttert av kommunen for å foreta et intervju, er det en fordel. Informasjon om selve undersøkelsen er trykt på skjemaets framside. Det er viktig at det blir klart for den som skal intervjuer at det er frivillig å delta i undersøkelsen, og at den som intervjuer er underlagt taushetsplikt og at ingen opplysninger kan spores tilbake til enkeltpersoner. Det eneste identifikasjonsnummeret som står på skjemaet, er et firesifra kommunenummer.

Inklusjon og eksklusjonskriterier
Fra den oversikten som vi mottok fra kommunen, er det trukket et utvalg av personer. Lista er sortert på en bestemt måte, og vi ønsker at intervjuene foretas fra toppen og ned. Før en starter intervjuene ber en om at de som er trukket ut, vurderes fra følgende kriterier:

a) terminal sykdom, (alvorlig syke)
b) akutt og kritisk sykdom og tilstand
c) demens eller annen åpenbar kognitiv svikt
d) er og har vært innlagt i psykiatrisk avdeling eller i psykiatrisk terapi de siste 5 år
e) lese- og skrivevansker
f) sterkt nedsatt hørsel

De som faller inn under ett eller flere av disse kriteriene skal ikke intervjues. SSB forventer ellers ikke at mer enn rundt 30 prosent av de som står på vedlagte liste intervjuer.

Oppfølging og tilbakesending av skjema – økonomisk godtgjørelse
Dersom det er praktiske spørsmål rundt gjennomføringen (intervjuering, frafall, kostnader osv), kan en ta kontakt med SSB: førstekonsulent Margaretha Stålnacke, telefon 21 09 45 01, e-post: mrs@ssb.no eller seksjonssjef Dagfinn Sve, telefon 62 88 52 61, e-post: sda@ssb.no. Har dere derimot spørsmål om selve undersøkelsen, utforming og spørsmålsformulering mv., må dere ta direkte kontakt med Menighetssøsterhjemmets høgskole ved høgskolelektor/dr. grads stipendiat Liv Halvorsrud, telefon 22 98 63 09, e-post: liv.halvorsrud@oslo.msh eller prosjektleder DrPH Mary Kalfoss, telefon
64 94 09 22, e-post: mary.kalfoss@c2i.net. Generelle spørsmål vedrørende personvern i SSB kan rettes til SSBs personvernombud, tel 21 09 00 00 eller e-post personvernombud@ssb.no.

SSB vil forsøke å følge opp intervjuerne via kommunene ved å ta telefonkontakt.

Når intervjuene er gjennomført, må skjemaene sendes samlet tilbake til SSB på følgende adresse: Statistisk sentralbyrå, MSH, Sektjon for databearbeiding, 2225 Kongsvinger. Det er viktig at en bruker korrekt adresse. Når skjemaene sendes tilbake til SSB, er det viktig at det blir opplyst om hvilket kontonummer tellingsgodtgjørelsen skal overføres til. Tellingsgodtgjørelsen vil bli på kroner 275 per skjema. Dersom skjemaene er svært mangelfullt utfylt (for eksempel fordi intervjuet måtte avbrytes), vil det bli en reduksjon i godtgjørelsen.

Prosjektet er av flere årsaker forsinket, og vi vil sette stor pris på om intervjuene kan gjennomføres så snart som mulig og at skjemaene returneres oss så snart som mulig, og senest ved utgangen av april.

Taushetsplikt og personvern
Alle som arbeider i Statistisk sentralbyrå har taushetsplikt. Undersøkelsen gjennomføres etter lovpålagte regler og SSB er underlagt kontroll både av Datatilsynet og vårt eget personvernombud. Fødselsnumrene som SSB har fått tilsendt, vil bli slettet to måneder etter at vi har trukket utvalgene.


Det er bare de som intervjuer som vil ha kjennskap til hva den enkelte svarer på spørsmålene. Derfor må intervjuerne skrive under på taushetserklæring overfor SSB. Det er lagt ved flere slike skjema ved denne utsendingen. Kommunen sørger for at skjemaene fylles ut og returneres SSB sammen med skjemaene.

Med vennlig hilsen

Dagfinn Sve
seksjonssjef

Vedlegg: Spørreskjemaer
Taushetserklæring for underskriving
Undersøkelse om Eldres livskvalitet

Statistisk sentralbyrå (SSB) bistår Menighetssøsterhjennmets Høgskole med gjennomføringen av denne undersøkelsen som er en del av en internasjonal studie. På framsiden av spørreskjemaet kan du lese mer om selve undersøkelsen.

Du er en av rundt 600 personer i alderen 60 - 89 år som er trukket ut til å være med på denne undersøkelsen. Utvalget er trukket tilfeldig fra folkeregisteret og til sammen representerer dere et speilbilde av befolkningen i denne aldersgruppen som ikke bor på institusjon eller som mottar kommunale hjemmebaserte tjenester. Det er frivillig å delta i undersøkelsen, men før vi skal få så gode resultater som mulig, er det viktig at alle som er trukket ut, blir med. Vi kan derfor ikke erstatte deg med en annen.


Vi ber deg svare på spørsmålene i spørreskjemaet og returnere det til Statistisk sentralbyrå i den vedlagte frankerte svarkonvolutton innen xx. april.

Har du spørsmål om den praktiske gjennomføringen av undersøkelsen, kan du ringe oss på telefonnummer 62 88 50 00, eller sende en e-post til dagfinn.sve@ssb.no. Oppgi hvilken undersøkelse det dreier seg om. Hjelp med utfylling og andre spørsmål om selve undersøkelsen kan du få ved ringe førsteanmanensis Mary Kalfoss eller høgskolelektor Liv Halvorsrud ved Menighetssøsterhjemmets Høgskole på telefon 22 98 63 00.

Generelle spørsmål vedrørende personvern i SSB kan rettes til SSBs personvernombud, tel 62 88 55 61 eller e-post personvernombud@ssb.no.

På forhånd takk for at du vil delta i undersøkelsen!

Med vennlig hilsen

Dagfinn Sve
seksjonssjef

Vedlegg: Skjema og frankert svarkonvolutt
Undersøkelse om Eldres livskvalitet

For noen uker siden sendte vi dem spørreskjema om ”Eldres livskvalitet”.

Først til dere som har svart på skjemaet:
Tusen takk for at dere tok dere tid til å fylle ut skjemaet! Dere kan for øvrig se bort fra resten av denne henvendelsen som er stilet til de som ikke har svart.

Så til dere som ikke har svart:
Først vil vi si at det er viktig å flest mulig deltar i undersøkelsen. Det er frivillig å delta, men dersom du ikke har rukket å fylle ut skjemaet, spør vi forsiktig om du ikke kan tenke deg å delta. I så fall ber vi om at skjemaet blir returnert i løpet av to uker.

Du vil komme til å være helt anonym i undersøkelsen. Vi har ikke oversikt over hvem som allerede har svart, og det er derfor vi sender denne henvendelsen til alle som fikk skjema i første runde (– også de som har svart). Nummeret som er ført på framsida av skjemaet, er det offisielle kommunenummeret som er likt for alle som er trukket ut i din kommune, og ikke noen identifikasjon av akkurat deg.

Vi viser ellers til forrige henvendelse når det gjelder spørsmål om sikkerhet, taushetsplikt, personvern osv.

Hjelp med utfylling og andre spørsmål om selve undersøkelsen kan du få ved ringe førsteamanuensis Mary Kalfoss eller høgskolelektor Liv Halvorsrud ved Menighetssøsterhjemmets Høgskole på telefon 22 98 63 00.
Har du spørsmål om den praktiske gjennomføringen av undersøkelsen, kan du ringe SSB på telefonnummer 62 88 50 00, eller sende en e-post til dagfinn.sve@ssb.no. Oppgi hvilken undersøkelse det dreier seg om.

På forhånd takk for at du vil delta i undersøkelsen!

Med vennlig hilsen

Dagfinn Sve
seksjonssjef

Vedlegg: Skjema og frankert svarkonvolutt
Bakgrunnsinformasjon


Noen spørsmål kan virke svært like, og noen spørsmål kan oppleves som ganske nærgående. Likevel ber vi deg besvare så mange spørsmål som mulig. Selv om du lar være å svare på enkeltspørsmål, er det viktig at du sender inn skjemaet. All informasjon vil selvsagt bli behandlet konfidensielt.


Dersom du ikke ønsker å delta i undersøkelsen, ber vi deg likevel om å gi en kort begrunnelse bakrest i skjemaet om hvorfor du ikke vil delta.

**Når du har fylt ut skjemaet, vennligst send det til oss i den ferdig frankerte konvoluten innen to uker.**

**Hvis du trenger hjelp, kan du ringe oss på tlf 22 98 63 00**

Med vennlig hilsen

Liv Halvorsrud og Mary Kalfoss
Menighetssøsterhjemmets Høgskole
Bakgrunnsinformasjon

Først har vi noen spørsmål om dinbakgrunn som det er svært viktig at du svarer på.

1  Er du mann eller kvinne?
   □ Mann  □ Kvinne

2  Hvor gammel er du?
   Antall år:  

3  Er du norsk statsborger?
   □ Ja □ Nei

4  Hva er din sivile status?
   □ Ugift
   □ Gift eller registrert partner ➔ Gå til spørsmål 6
   □ Enke/enkemann eller gjenlevende partner
   □ Skilt
   □ Separert

5  Har du en kjæreste eller fast venn?
   □ Ja
   □ Nei ➔ Gå til spørsmål 7

6  Hvordan vil du si at forholdet til din partner er? Kryss av i en rute.
   □ Det er aldri nær og intimt
   □ Det er sjelden nær og intimt
   □ Det er noen ganger nær og intimt
   □ Det er ofte nær og intimt

7  Hvor mange barn har du? Kryss av for ingen eller før opp antall barn
   □ Ingen ➔ Gå til spørsmål 11
   Antall: 

8. Hvor tilfreds er du med ditt forhold til barna dine?

- Svært tilfreds
- Tilfreds
- Verken tilfreds eller utilfreds
- Utilfreds
- Svært utilfreds

9. Hvor mange barnebarn har du?

- Ingen → Gå til spørsmål 11

Antall:

10. Hvor tilfreds er du med ditt forhold til barnebarna dine?

- Svært tilfreds
- Tilfreds
- Verken tilfreds eller utilfreds
- Utilfreds
- Svært utilfreds

11. Bor du i egen bolig, bor du hos andre eller bor du på institusjon?

- Bor i egen bolig
- Bor hos familie eller andre
- Bor i omsorgsbolig → Gå til spørsmål 13
- Bor på aldershjem → Gå til spørsmål 13
- Bor på sykehjem → Gå til spørsmål 13

12. Mottar du regelmessig hjelp til vask og rengjøring av boligen eller til annet husarbeid?

- Nei
- Ja, fra offentlige hjelpeordninger
- Ja, fra slekt eller andre i husholdningen
- Ja, fra andre

13. Hva er din høyeste fullførte utdanning?

- Ingen fullført utdanning
- Fullført 7-årig barne- eller grunnskole
- Fullført ungdomsskole, framhaldsskole eller realskole
- Videregående skole innen tekniske fag eller yrkesfag
- Videregående skole innen allmennfag
- Høgskole eller universitetsutdanning, lavere grad
- Høgskole eller universitetsutdanning, høyere grad
Hva var ditt tidligere yrke?

Profesjonelt eller høyere stilling som administrator
(for eksempel: lege, lærer, ingeniør, artist, regnskapsfører, forretningsleder, høyere embetsmann osv.)

Salg og service
(for eksempel: salgsjef, butikkeier, butikkmedarbeider, forsikringsagent, politimann, serveringsdame, omsorgsperson, frisør osv.)

Fagarbeider og kontorarbeider
(for eksempel: formann, motormekaniker, trykker, syrskje, elektriker, sekretær, kontorpersonale, bokholder, kontorleder osv.)

Delvis faglært eller ufaglært arbeider
(for eksempel: murer, bussjåfør, hermetikfabrikkarbeider, baker, kroppsarbeider, portner osv.)

Gårdsbruk
(for eksempel: bonde, gårdsbrukarbeider osv.)

Militært ansatt

Utførte husarbeid

Ubetalt arbeid

Annet

Vennligst spesifiser:

Vennligst kryss av for følgende utsagn som gjelder deg:

Kryss av for en eller flere.

- Jeg arbeider fulltid
- Jeg arbeider deltid
- Jeg har bare tilfeldig arbeid
- Jeg er selvstendig næringsdrivende
- Jeg er arbeidssøkende, ser etter arbeid
- Jeg er alderspensjonist
- Jeg er uførepensjonist
- Jeg utfører husarbeid
- Jeg studerer
- Jeg gjør frivillig arbeid
Dersom du for tiden er i arbeid, hva er din inneværende stilling?

Profesjonelt eller høyere stilling som administrator
(for eksempel: lege, lærer, ingeniør, artist, regnskapsfører, forretningsleder, høyere embetsmann osv.) ........................................................................................................................................

Salg og service
(for eksempel: salgssjef, butikkeier, butikkmedarbeider, forsikringsagent, politimann, serveringsdame, omsorgsperson, frisør osv.) ........................................................................................................................................

Fagarbeider og kontorarbeider
(for eksempel: formann, motormekaniker, trykker, syerske, elektriker, sekretær, kontorpersonale, bokholder, kontorleder osv.) ........................................................................................................................................

Delvis faglært eller ufaglært arbeider
(for eksempel: murer, bussjåfør, hermetikkfabrikkarbeider, baker, kroppsarbeider, portner osv.). ........................................................................................................................................

Gårdsbruk
(for eksempel: bonde, gårdsbrukarbeider osv.) ........................................................................................................................................

Militært ansatt ........................................................................................................................................

Utførte husarbeid ........................................................................................................................................

Ubetalt arbeid ........................................................................................................................................

Annet ........................................................................................................................................

Vennligst spesifiser: ........................................................................................................................................

Vil du si at din økonomiske situasjon er bedre, dårligere eller på samme nivå som andre folk på din alder?

[ ] Mye bedre
[ ] Bedre
[ ] På samme nivå
[ ] Dårligere
[ ] Mye dårligere
[ ] Vet ikke

Har du i løpet av de siste 12 månedene merket noen vanskeligheter i din evne til å koncentrere deg?

Eksempler: Blir lett distraheret av andre ting når du holder på med noe, blir lett distraheret av hørselintrykk under lesning.

[ ] Ja
[ ] Av og til
[ ] Nei
Din livskvalitet

Tenk på dine håp og gleder, hva du er opptatt av og hvordan du ønsker at livet ditt skal være. Vi ber deg svare på hvordan livet ditt har vært de to siste ukene.

De første spørsmålene gjelder positive og negative opplevelser og sinnsstemninger.

19 I hvilken grad har svekket hørsel, syn, smak, lukt eller berøring påvirket dagliglivet?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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</thead>
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<td>1</td>
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</table>

20 I hvilken grad har tap av hørsel, syn, smak, lukt eller berøring påvirket din evne til å være aktiv?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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</table>

21 I hvilken grad har du at du har hatt frihet til å ta egne avgjørelser?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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</table>

22 I hvilken grad har du følt at du har kontroll med fremtiden din?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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</table>

23 I hvilken grad har du opplevd at folk rundt deg respekterer din frihet?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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24 I hvilken grad har du følt du deg isolert fra folk rundt deg?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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</table>

25 I hvilken grad har du vært bekymret for at mennesker som står deg nær vil dø?
### I hvilken grad er du bekymret for måten du skal dø på?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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</table>

### I hvilken grad har du vært redd for at du ikke vil ha kontroll over din egen død?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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### Hvor redd er du for å dø?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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</table>

### I hvilken grad frykter du at du skal ha smerter før du dør?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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</table>

### I de neste spørsmålene spør vi om hvor fullstendig du var i stand til å utføre daglige gjøremål eller i hvilken grad du opplevde bestemte ting i løpet av de to siste ukene. Du skal svare på en skala som går fra "Ikke i det hele tatt" til "Fullt og helt".

### I hvilken grad har problemer med hørsel, syn, smak, lukt eller berøring påvirket ditt samvær med andre?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullt og helt</th>
</tr>
</thead>
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</table>

### I hvilken grad har du vært i stand til å gjøre det du ønsket?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullt og helt</th>
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</table>

### I hvilken grad har du vært tilfreds med mulighetene du fortsatt har til å prestere noe i livet?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullt og helt</th>
</tr>
</thead>
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</table>
I hvilken grad føler du at du har fått den anerkjennelsen som du fortjener i livet?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullt og helt</th>
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</table>

I hvilken grad har du tilstrekkelig med anledninger til å snakke om fortiden?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullt og helt</th>
</tr>
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</table>

I hvilken grad har du følt at du har kommet utendørs så mye som du har ønsket?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullt og helt</th>
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</table>

I hvilken grad har du følt at du har hatt nok å gjøre hver dag?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullt og helt</th>
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</tbody>
</table>

Spørsommålene som følger handler om hvor tilfreds, glad eller lykkelig du har følt deg med forskjellige sider av livet. Du skal svare på en skala som går fra "Svært utilfreds" til "Svært tilfreds".

Hvor tilfreds er du med ditt bidrag til samfunnet?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
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<td>1</td>
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<td>4</td>
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</table>

Hvor tilfreds er du med det du har oppnådd i livet?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
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</table>

Hvor tilfreds er du med måten du bruker tiden din på?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
**40 Hvor tilfreds er du med ditt aktivitetsnivå?**

<table>
<thead>
<tr>
<th></th>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
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</thead>
<tbody>
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<td>5</td>
</tr>
</tbody>
</table>

**41 Hvor tilfreds er du med dine muligheter til å delta i fellesaktiviteter?**

<table>
<thead>
<tr>
<th></th>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**42 Hvor tilfreds er du med de tingene du kan se frem til?**

<table>
<thead>
<tr>
<th></th>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
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<tr>
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<td>1</td>
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</tr>
</tbody>
</table>

**43 Hvorof tar du gradere din helse når det gjelder hørsel, syn, smak, lukt og berøring?**

<table>
<thead>
<tr>
<th></th>
<th>Meget dårlig</th>
<th>Dårlig</th>
<th>Verken god eller dårlig</th>
<th>God</th>
<th>Meget god</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I det neste spørsmålet skal du svare på en skala som går fra "Aldri" til "Alltid".

**44 Hvor ofte engasjerer du deg i aktiviteter som er meningsfulle for deg?**

<table>
<thead>
<tr>
<th></th>
<th>Aldri</th>
<th>Sjelden</th>
<th>Ofte</th>
<th>Svært ofte</th>
<th>Alltid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
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<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

I de neste spørsmålene spør vi om nære og følsomme forhold til andre.

**45 I hvilken grad har du muligheter for å dele dine innerste tanker med andre?**

<table>
<thead>
<tr>
<th></th>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullt og helt</th>
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<td>1</td>
<td>2</td>
<td>3</td>
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<td>5</td>
</tr>
</tbody>
</table>

**46 I hvilken grad føler du at du har vennskap i livet ditt?**

<table>
<thead>
<tr>
<th></th>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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</tbody>
</table>
### I hvilken grad opplever du kjærlighet i livet ditt?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
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### I hvilken grad har du hatt mulighet til å være glad i noen?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullt og helt</th>
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</table>

### Hvor tilfreds er du med dine muligheter til fysisk kontakt og nærhet?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
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</table>

### Hvor tilfreds er du med dine muligheter til intimitet i livet ditt?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
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### I hvilken grad har du hatt mulighet oppleve at noen er glad i deg?

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullt og helt</th>
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</tbody>
</table>

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Den neste delen av skjemaet handler også om din livskvalitet, men spørsmålene stilles på en litt annen måte enn spørsmålene du nettopp har svart på. Selv om du skulle føle at noen av spørsmålene er svært like de du har svart på tidligere, ber vi deg om å s洋re så godt du kan.

### Hvordan vil du vurdere kvaliteten på livet ditt?

<table>
<thead>
<tr>
<th>Svært dårlig</th>
<th>Dårlig</th>
<th>Verken god eller dårlig</th>
<th>God</th>
<th>Svært god</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</table>

### Hvor tilfreds er du med helsen din?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
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</tbody>
</table>
De følgende spørsmålene spør etter **hvor mye** du har opplevd av bestemte ting i **de to siste ukene**.

<table>
<thead>
<tr>
<th>Spørsmål</th>
<th>Skala</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>I hvilken grad føler du at smerte hindrer deg i å gjøre det du må?</td>
<td>Ikke i det hele tatt</td>
<td>[ ]</td>
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<td></td>
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<tr>
<td></td>
<td>I liten grad</td>
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<td>[ ]</td>
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</tr>
<tr>
<td></td>
<td>Til en viss grad</td>
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<tr>
<td></td>
<td>I høy grad</td>
<td></td>
<td></td>
<td></td>
<td>[ ]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I svært høy grad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[ ]</td>
</tr>
</tbody>
</table>

| I hvilken grad trenger du medisinsk behandling for å kunne fungere til daglig? | Ikke i det hele tatt | [ ]|   |   |   |   |
|                                                                                 | I liten grad              |   | [ ]|   |   |   |
|                                                                                 | Til en viss grad           |   |   | [ ]|   |   |
|                                                                                 | I høy grad                 |   |   |   | [ ]|   |
|                                                                                 | I svært høy grad           |   |   |   |   | [ ]|

| Hvor mye gleder du deg over livet?                                             | Ikke i det hele tatt       | [ ]|   |   |   |   |
|                                                                                   | I liten grad               |   | [ ]|   |   |   |
|                                                                                   | Til en viss grad           |   |   | [ ]|   |   |
|                                                                                   | I høy grad                 |   |   |   | [ ]|   |
|                                                                                   | I svært høy grad           |   |   |   |   | [ ]|

| I hvilken grad føler du at livet ditt er meningsfullt?                         | Ikke i det hele tatt       | [ ]|   |   |   |   |
|                                                                                   | I liten grad               |   | [ ]|   |   |   |
|                                                                                   | Til en viss grad           |   |   | [ ]|   |   |
|                                                                                   | I høy grad                 |   |   |   | [ ]|   |
|                                                                                   | I svært høy grad           |   |   |   |   | [ ]|

| Hvor godt kan du konsentrere deg?                                             | Ikke i det hele tatt       | [ ]|   |   |   |   |
|                                                                                   | I liten grad               |   | [ ]|   |   |   |
|                                                                                   | Til en viss grad           |   |   | [ ]|   |   |
|                                                                                   | I høy grad                 |   |   |   | [ ]|   |
|                                                                                   | I svært høy grad           |   |   |   |   | [ ]|

| Hvor trygg føler du deg til daglig?                                           | Ikke i det hele tatt       | [ ]|   |   |   |   |
|                                                                                   | I liten grad               |   | [ ]|   |   |   |
|                                                                                   | Til en viss grad           |   |   | [ ]|   |   |
|                                                                                   | I høy grad                 |   |   |   | [ ]|   |
|                                                                                   | I svært høy grad           |   |   |   |   | [ ]|

| Hvor sunne er dine fysiske omgivelser?                                        | Ikke i det hele tatt       | [ ]|   |   |   |   |
|                                                                                   | I liten grad               |   | [ ]|   |   |   |
|                                                                                   | Til en viss grad           |   |   | [ ]|   |   |
|                                                                                   | I høy grad                 |   |   |   | [ ]|   |
|                                                                                   | I svært høy grad           |   |   |   |   | [ ]|

Side 11
De følgende spørsmålene spør etter **hvordan du har opplevet** eller kunne utføre bestemte ting i løpet av de to siste ukene.

61 **Har du nok energi til dine daglige gjøremål?**

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>Fullstendig</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
</tr>
</tbody>
</table>

62 **Kan du akseptere utseendet ditt?**

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
</tr>
</tbody>
</table>

63 **Har du nok penger til å dekke dine behov?**

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
</tr>
</tbody>
</table>

64 **Hvor tilgjengelig er den informasjonen som du trenger i dagliglivet?**

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
</tr>
</tbody>
</table>

65 **I hvilken grad har du mulighet for å delta i fritidsaktiviteter?**

<table>
<thead>
<tr>
<th>Ikke i det hele tatt</th>
<th>I liten grad</th>
<th>Til en viss grad</th>
<th>I høy grad</th>
<th>I svært høy grad</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
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<td>![ ]</td>
</tr>
</tbody>
</table>

66 **Hvor godt er du i stand til å komme deg dit du vil?**

<table>
<thead>
<tr>
<th>Svært dårlig</th>
<th>Dårlig</th>
<th>Verken godt eller dårlig</th>
<th>Godt</th>
<th>Svært godt</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
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<td>![ ]</td>
</tr>
</tbody>
</table>

De følgende spørsmålene spør etter **hvordan du har opplevet** eller kunne utføre bestemte ting i løpet av de to siste ukene.

67 **Hvor tilfreds er du med hvordan du sover?**

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
<tr>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
<td>![ ]</td>
</tr>
</tbody>
</table>
68 Hvor tilfreds er du med din evne til å utføre dine daglige gjøremål?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

69 Hvor tilfreds er du med din arbeidskapasitet?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

70 Hvor tilfreds er du med deg selv?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
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<tbody>
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</tr>
</tbody>
</table>

71 Hvor tilfreds er du med ditt forhold til andre mennesker?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

72 Hvor tilfreds er du med ditt seksualliv?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

73 Hvor tilfreds er du med den støtten du får fra dine venner?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

74 Hvor tilfreds er du med forholdene der du bor?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
75 Hvor tilfreds er du med din tilgang til helsetjenester?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

76 Hvor tilfreds er du med transportmulighetene dine?

<table>
<thead>
<tr>
<th>Svært utilfreds</th>
<th>Utilfreds</th>
<th>Verken tilfreds eller utilfreds</th>
<th>Tilfreds</th>
<th>Svært tilfreds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Det følgende spørsmålet refererer seg til hvor ofte du har opplevd eller følt negative følelser i løpet av de to siste ukene.

77 Hvor ofte opplever du negative følelser, som f.eks. at du er trist, fortvilet, engstelig eller deprimert?

<table>
<thead>
<tr>
<th>Aldri</th>
<th>Sjelden</th>
<th>Ofte</th>
<th>Svært ofte</th>
<th>Alltid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gå til neste side.
**Om å bli eldre**

Denne delen av spørreskjemaet handler om hvordan det føles å bli eldre. Vi begynner med noen påstander om hva det innebærer å bli eldre. Kryss av for om du er enig eller uenig i disse påstandene.

### Hvor enig eller uenig er du i disse påstandene:

<table>
<thead>
<tr>
<th>påstand</th>
<th>helt uenig</th>
<th>ganske uenig</th>
<th>både enig og uenig</th>
<th>ganske enig</th>
<th>helt enig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Folk er bare så gamle som de føler seg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etter hvert som folk blir eldre, er de bedre i stand til å mestre livet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alderdom er en tid for sykdom</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Det er et privilegium å bli eldre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eldre folk er interessert i ny teknologi, slik som datamaskin og internett</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eldre folk er interessert i kjærlighet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alderdom er en tid med ensomhet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visdom kommer med alderen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Det er mange hyggelige ting ved det å bli eldre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alderdom er en deprimerende tid i livet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>En persons kapasitet og evner synker med alderen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Det er viktig å mosjonere i alle aldre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gå til neste side.
Så vil vi gjerne vite hvor godt utsagnene nedenfor stemmer med dine opplevelser av å bli gammel. Kryss av for hvor sanne disse beskrivelsene er på det som gjelder i ditt liv.

79 Hvor godt passer disse beskrivelsene av det å bli gammel på deg?

<table>
<thead>
<tr>
<th>Beskrivelse</th>
<th>Er ikke sant i det hele tatt</th>
<th>Litt sant</th>
<th>Ganske sant</th>
<th>Svært sant</th>
<th>Er helt sant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Det å bli eldre har vært lettere enn jeg trodde ..................................</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg synes det er vanskeligere å snakke om mine følelser etter hvert som jeg blir eldre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg godtar meg selv mer etter hvert som jeg blir eldre ..........................</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg føler meg ikke gammel ........................................................................</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg ser alderdommen hovedsaklig som en tid med tap ................................</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min personlige tro og åndelige liv betyr mer for meg etter hvert som jeg blir eldre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min identitet er ikke bestemt av hvor gammel jeg er ................................</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg har mer energi nå enn jeg forventet i min alder ................................</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg mister min fysiske uavhengighet når jeg blir eldre ................................</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problemer med min fysiske helse holder meg ikke tilbake fra å gjøre hva jeg ønsker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg liker ikke at utseendet mitt forandrer seg etter hvert som jeg blir eldre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Etter hvert som jeg blir eldre, finner jeg det vanskeligere å få nye venner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Det er svært viktig å bringe nyttige erfaringer videre til yngre folk ..........</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg frykter at jeg vil miste min økonomiske uavhengighet etter som jeg blir eldre</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nå har jeg tid til å gjøre de tingene jeg virkelig interesserer meg for ..........</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg ønsker å drive med en eller annen form for frivillig eller betalt arbeid så lenge som mulig</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg er bekymret for at jeg skal bli til økonomisk belastning for min familie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeg tror at mitt liv har vært av betydning for noen eller noe ..................</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
(fortsetter) Hvor godt passer disse beskrivelsene av det å bli gammel på deg?

<table>
<thead>
<tr>
<th>Er ikke sant i det hele tatt</th>
<th>Litt sant</th>
<th>Ganske sant</th>
<th>Svært sant</th>
<th>Er helt sant</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Livet mitt har like mye mening nå som det alltid har hatt .................................................................

Nå som jeg er blitt eldre føler jeg meg lite engasjert i samfunnslivet ..................................................

Jeg ønsker å være et godt eksempel for yngre folk ................................................................................

Jeg føler at jeg blir holdt utenfor på grunn av min alder ......................................................................

Fremtiden fyller meg med frykt ..............................................................................................................

Min helse er bedre enn jeg forventet i min alder ..................................................................................

Jeg holder meg selv i form og er så aktiv som mulig ved å mosjonere .................................................

Etter hvert som jeg har blitt eldre har jeg fått et mer fortrolig og tilfredstillende forhold de menneskene som er viktige for meg ..............................................................

Din helse

Denne typen spørsmål om din helse som vi ønsker å stille, består av tre lister hvor du skal krysse av hvilke erfaringer som gjelder for deg. Den første listen gjelder symptomer på helseproblem.

<table>
<thead>
<tr>
<th>Har du i løpet av de siste to ukene vært plaget av...</th>
<th>Nei, ikke plaget</th>
<th>Ja, litt plaget</th>
<th>Ja, ganske plaget</th>
<th>Ja, veldig plaget</th>
</tr>
</thead>
<tbody>
<tr>
<td>hodepine? ............................................................................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>skjelving? ............................................................................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>matthet eller svimmelhet? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>nervøsitet/ indre uro? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>plutselig frykt uten grunn? .................................................................</td>
<td>☐</td>
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</tr>
<tr>
<td>å være stadig redd eller engstelig? .................................................................</td>
<td>☐</td>
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</tr>
<tr>
<td>hjertebank/ hjerteslag som løper av gårde? .................................................................</td>
<td>☐</td>
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</tr>
<tr>
<td>å være anspent/oppjaget? .................................................................</td>
<td>☐</td>
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<tr>
<td>angst eller panikk? .................................................................</td>
<td>☐</td>
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<tr>
<td>å være så rastløs at det er vanskelig å sitte stille? .................................................................</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>mangel på energi, alt går langsommere enn vanlig? .................................................................</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>å ha lett for å klandre deg selv? .................................................................</td>
<td>☐</td>
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<tr>
<td>å ha lett for å gråte? .................................................................</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>tanker om å ta ditt liv? .................................................................</td>
<td>☐</td>
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<tr>
<td>dårlig matlyst? .................................................................</td>
<td>☐</td>
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</tr>
<tr>
<td>søvnproblemer? .................................................................</td>
<td>☐</td>
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<td>☐</td>
</tr>
<tr>
<td>følelse av håpløshet med tanke på fremtiden? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>å være nedtrykt/ tungsindig? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>følelse av ensomhet? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>tap av seksuell lyst og interesse? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>følelsen av å være lurt i en felle eller fanget? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>å være mye bekymret eller urolig? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>å være uten interesse for noe? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>følelse av at alt er et slit? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>følelse av å være unyttig? .................................................................</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Den neste listen gjelder følelsesmessige forhold. Disse spørsmålene skal du bare besvare med "Ja" eller "Nei".

<table>
<thead>
<tr>
<th>Spørsmål</th>
<th>Ja</th>
<th>Nei</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Føler du deg jevnt over tilfreds med livet?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Har du gitt opp eller sluttet med mange interesser?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Føler du at livet er tomt?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Synes du at tilværelsen er kjedelig?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Er du vanligvis i godt humør?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Er du engstelig for at det skal hende deg noe alvorlig?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Føler du deg vanligvis lykkelig?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Føler du deg ofte hjelpeløs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Foretrekker du å være hjemme framfor å gå ut å oppleve nye ting?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Føler du at du har større problemer med hukommelsen enn andre (jevnaldrene)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Føler du i øyeblikket at det er godt å leve?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Føler du deg verdiløs slik du er nå?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Føler du deg opplagt?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Synes du at din egen situasjon er håpløs?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Synes du at folk flest har det bedre enn deg?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gå til neste side.
De neste spørsmålene handler om hvordan du ser på egen helse. Disse opplysningene vil hjelpe oss til å få vite hvordan du har det og hvordan du er i stand til å utføre dine daglige gjøremål.

82 Stort sett, vil du si at din helse er:

<table>
<thead>
<tr>
<th>Utmerket</th>
<th>Meget god</th>
<th>God</th>
<th>Nokså god</th>
<th>Dårlig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>

De neste spørsmålene handler om aktiviteter som du kanskje utfører i løpet av en vanlig dag.

83 Er din helse slik at den begrenser deg i utførelsen av disse aktivitetene? Hvis ja, hvor mye?

- moderate aktiviteter som å flytte et bord, støvsuge, gå en tur eller drive med hagearbeid
- gå opp trappen flere etasjer

Ja, begrenser meg mye | Ja, begrenser meg litt | Nei, begrenser meg ikke i det hele tatt
1 | 2 | 3

84 I løpet av de 4 siste ukene, har du hatt noen av de følgende problemene i ditt arbeid eller i andre av dine daglige gjøremål på grunn av din fysiske helse?

Du har utrettet mindre enn du hadde ønsket

85 I løpet av de 4 siste ukene, har du hatt noen av de følgende problemer i ditt arbeid eller i andre av dine daglige gjøremål på grunn av følelsesmessige problemer (som for eksempel å være deprimert eller engstelig)?

Du har utrettet mindre enn du hadde ønsket

86 I løpet av de 4 siste ukene, hvor mye har smerter påvirket ditt vanlige arbeid (gjelder både arbeid utenfor hjemmet og husarbeid)?

Ikke i det hele tatt | Litt | En del | Mye | Svært mye
1 | 2 | 3 | 4 |
De neste spørsmålene handler om hvordan du har følt deg og hvordan du har hatt det de siste 4 ukene. For hvert spørsmål, vennligst velg det svaralternativet som best beskriver hvordan du har hatt det.

87 Hvor ofte i løpet av de siste ukene har du:

<table>
<thead>
<tr>
<th>Helt tiden</th>
<th>Nesten hele tiden</th>
<th>Mye av tiden</th>
<th>En del av tiden</th>
<th>Litt av tiden</th>
<th>Ikke i det hele tatt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Følt deg rolig og harmonisk. ...........................................[ ][ ][ ][ ][ ][ ]
Hatt mye overskudd. .........................................................[ ][ ][ ][ ][ ]
Følt deg nedfor og trist. ..................................................[ ][ ][ ][ ][ ]

88 I løpet av de siste ukene, hvor mye av tiden har din fysiske helse eller følelsesmessige problemer påvirket din sosiale omgang (som det å besøke venner, slektninger osv.)?

<table>
<thead>
<tr>
<th>Helt tiden</th>
<th>Nesten hele tiden</th>
<th>Mye av tiden</th>
<th>En del av tiden</th>
<th>Litt av tiden</th>
<th>Ikke i det hele tatt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Den neste delen av skjemaet handler også om din helse, men spørsmålene stilles på en litt annen måte enn spørsmålene du nettopp har svart på. Selv om du skulle føle at noen av spørsmålene er svært like de du har svart på tidligere, ber vi deg om å svare så godt du kan.

89 Vurderer du deg selv generelt som frisk eller syk?
Frisk [ ] Syk [ ]

90 Sammenlignet med for 12 måneder siden, er din helsetilstand bedre eller dårligere?

<table>
<thead>
<tr>
<th>Mye bedre</th>
<th>Noe bedre</th>
<th>Omtrent som for ett år siden</th>
<th>Noe dårligere</th>
<th>Mye dårligere</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

91 Hvordan synes du din fysiske helse har vært de siste 2 ukene sammenlignet med de siste 12 måneder?

<table>
<thead>
<tr>
<th>Meget god</th>
<th>God eller dårlig</th>
<th>Verken god eller dårlig</th>
<th>Dårlig</th>
<th>Meget dårlig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

92 Husker du dårligere nå enn for 12 måneder siden?
Ja [ ] Av og til [ ] Nei [ ]
93 Hvordan synes du din mentale helse har vært de siste 2 ukene sammenlignet med de siste 12 måneder?

<table>
<thead>
<tr>
<th>Meget god</th>
<th>God</th>
<th>Verken god eller dårlig</th>
<th>Dårlig</th>
<th>Meget dårlig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

94 Har du helseproblemer eller sykdommer som du opplever at påvirker din livskvalitet?

Ja
Nei

Vennligst beskriv så utførlig som mulig hvilke helseproblemer eller sykdommer dette er:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

95 Bruker du noen medisiner etter anbefaling fra lege eller skrevet ut på resept av lege?

Ja
Nei

96 Bruker du vitaminer, mineraler, urter eller medisiner som ikke er anbefalt fra lege eller skrevet ut på resept av lege?

Ja
Nei
**Til slutt har vi noen spørsmål om helsevaner**

97  **Røyker du?**
- Ja  → Omtrent hvor mange sigaretter røyker du per uke:  
- Nei  

98  **Har du røkt tidligere?**
- Ja  → Omtrent hvor lenge siden er det du sluttet?  
- Nei  

99  **Bruker du snus?**
- Ja  
- Nei  

100  **Omtrent hvor ofte drikker du alkohol?**
- Daglig  
- Flere ganger pr uke  
- Ca. en gang i uken  
- Ca. to ganger i måneden  
- Månedlig eller mindre  
- Aldri  

Helt til slutt noen utsagn om velvære i løpet av de **de to siste ukene**. Du skal svare på om utsagnene passer til din situasjon "Hele tiden", mindre enn hele tiden eller "Aldri" i løpet av denne perioden.

101  **Hvor mye av tiden de to siste ukene stemmer disse utsagnene med hvordan du har følt deg:**

<table>
<thead>
<tr>
<th>Hele tiden</th>
<th>Det meste av tiden</th>
<th>Mer enn halve tiden</th>
<th>Mindre enn halve tiden</th>
<th>Aldri</th>
</tr>
</thead>
<tbody>
<tr>
<td>- har jeg kjent meg fornøyd og i godt humør</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- har jeg kjent meg rolig og avslappet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- har jeg kjent meg aktiv og energisk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- har jeg kjent meg frisk og uthvilt når jeg våkner</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- har dagliglivet vært fylt av ting som interesserer meg.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
102 Til slutt vil vi gjerne vite om du fikk hjelp til å fylle ut noen av spørsmålene i skjemaet eller du svarte på alle spørsmålene på egenhånd?

☐ Fikk hjelp til utfyllingen
☐ Fikk ikke hjelp til utfyllingen → Gå til 104

103 I hvilke deler av skjemaet fikk du hjelp til utfyllingen?

☐ Bakgrunnsinformasjon
☐ Din livskvalitet
☐ Om å bli eldre
☐ Din helse

104 Nå er du ferdig med utfyllingen. Takk for innsatsen!


Merknader:
### De sist utgitte publikasjonene i serien Notater

<table>
<thead>
<tr>
<th>Publikasjon</th>
<th>Tittel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004/84</td>
<td>D. Spilde: Statistikk over energibruk i industri. Dokumentasjon og brukerveiledning. 53s.</td>
</tr>
<tr>
<td>2004/85</td>
<td>L. Haakonsen: KVARTS i paksis III. Systemer og rutiner i den daglige driften. 72s.</td>
</tr>
<tr>
<td>2004/87</td>
<td>F. Strøm: Personer uten registrert inntekt eller formue. En gjennomgang av SSBs datagrunnlag for registerbasert inntekts- og formustatistikk 30s.</td>
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<tr>
<td>2004/88</td>
<td>G. Daugstad og B. Lie: Kvalitativ forstudie til lekekårsundersøkelse blant ikkeveistlige innvandrere. 138s.</td>
</tr>
<tr>
<td>2004/89</td>
<td>S. Lien og Ø. Sivertstøl: Langtidsmottakere av sosialhjelp 1997-1999. 64s. ISSN 0806-3745</td>
</tr>
<tr>
<td>2005/4</td>
<td>G. Dahl: Uførepensjonisters bakgrunn. 56s.</td>
</tr>
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<td>2005/5</td>
<td>N.K. Buskoven: Vertskommunekompensasjon - kartlegging av kommunenes utgifter til asylmottak. 49s.</td>
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