Social medical care before and during homelessness in Amsterdam
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SOCIAL MEDICAL CARE
BEFORE AND DURING HOMELESSNESS
IN AMSTERDAM

Igor van Laere
Social medical care before and during homelessness in Amsterdam
Promotiecommissie

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Pathways into homelessness: recently homeless adults problems and service use before and after becoming homeless in Amsterdam. BMC Public Health 2009, 9:3.

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Introduction
Model of social medical decay and research questions
Personal motivation for this thesis

Since 1995, I have been working as an outreach doctor for homeless people in Amsterdam. During work, I meet homeless patients, colleagues, organizations, policy makers and politicians, and their problems. I have been trying to disentangle the complex of homelessness, problems and care provision, in order to get an overview of what is needed to improve social medical care for those in highest need.

To me, our homeless patients, their problems and their journeys to find support, are a continuous source of inspiration and exploration. Therefore, my practice based knowledge and experience with life and death in the streets of Amsterdam are the foundation of my academic search to better understand social medical care before and during homelessness. This thesis is a scientific account of my journey.

People experiencing homelessness are in a chronic state of social and medical crisis. Due to a lack of basic social needs such as housing, income and healthy living, they often accelerate down a deteriorating path complicated by addictions, and worsening mental and physical health. In terms of care, the interaction between social and medical problems’ demands simultaneous support by social and medical workers. When the basic social needs for a homeless person are repaired, the path towards care for addiction, mental and physical problems becomes possible. 1,2

People may get lost when they have no guidance. Often the road leads to indolent and destructive activities, reduction of income, accumulation of social and financial debts, and finally, the loss of housing. The journey of losing the basic social supports may take many directions, depending on the point of departure and the associated “baggage”. 3 Possible destinations include independent living, assisted living, shelter housing, prison time or a residential facility for addiction, mental and/or physical health problems.

Homelessness is a major and serious public health problem. It is stated that for homeless people, the life expectancy averages about 45 years, similar to the lifespan in Dickens’ time. Too often, the structure of health services creates an actual barrier to recovery and, as a result, contributes to a downward spiral of deteriorating health and health choices. 4 Homeless populations are 3-4 times more likely to die prematurely than the general housed population, according to studies in Australia, Canada, Denmark, the Netherlands, Sweden and the US. 5-6 Therefore, in rich countries, where the life span of homeless people is almost half that of the general population, the health services do not seem to contribute to the promotion of health. It is essential, therefore, to obtain knowledge on how to prevent people from becoming homeless and how to improve the health of homeless persons.

Although a considerable amount of medical literature on homelessness and health is available, little scientific research contributes to the guidance in the development and organization of programs to prevent homelessness and to actually improve the health of homeless people. 7-10 Studies involving homeless populations face difficulties and restrictions in definition, sampling, stages of homeless investigations, ethics, privacy, validated instruments and the reliability of results. 11,12 Using such terms as ‘homeless’, ‘homeless person’ and ‘homelessness’, Stephen Hwang and co-workers in Toronto, Canada, 10 found 4,564 abstracts and 258 articles which they systematically reviewed. They used the criteria: use of an intervention, a comparison group, and the reporting of health related outcomes. Forty-five articles, less than two percent, were useful to comment on the effectiveness of interventions. Effectiveness was proven for (assertive) case management linked to other services and monetary incentives, for homeless persons with mental illness, substance abuse problems or tuberculosis. These interventions improved symptoms and care adherence, and a decrease in substance abuse and hospitalization. In the Netherlands, the Municipal Public Health Service in Utrecht studied the effect on street drug users who received housing and case management in three hostels. After a two year follow up, less social and medical problems were noticed. 13

8 In the Anglo-Saxon literature the terms health problems and medical problems usually refer to the physical condition, and might exclude addiction and mental health problems. In this thesis we speak of medical problems as these problems – addiction, mental and physical – that are in need for an integral approach. In terms of health care in general, addiction and mental health problems might be excluded as specialist care for these problems is mostly provided in separate clinics by separate medical professionals. Therefore, we rather speak of medical care to include all medical problems potentially present among people in highest need.
Thus, homelessness is a major public health problem for which little scientific evidence is available on how to prevent homelessness and how to improve the health of homeless people. Based on the experience with outreach care for homeless people in Amsterdam, we want to improve scientific knowledge on how to provide social medical care before and during homelessness for those in highest need. Thus, the ‘street’ provides lessons for public health.

**How we meet homeless people in Amsterdam**

For the history of social medical care in the Netherlands, and the role of doctors for the poor, we refer to the work of Dr. Arie Querido (1901 – 1983). He was the founder of the Mental Hygiene Department of the Municipal Public Health Service (in Dutch: Geneeskundige en Gezondheidsdienst = GGD) in Amsterdam, before he became a professor of social medicine at the University of Amsterdam in 1952. In his article ‘social case work and the practice of medicine’, Querido states:

“Modern medicine, entering into the understanding that it has to deal with persons and not with organs, that the person is indivisible and inseparable from his relations and allegiations, comes to the recognition that it has to be comprehensive, rational and humane. Therefore, it is impossible to cut away one part of the problem and to leave it to experts who work independently from the physician. If the medico-social work has remained undeveloped or is developing separately from medicine, the fault may be laid at the doctor’s door, but there is no reason to accept this situation.”

GGD doctors that have followed Querido did not accept this situation and they have been responding to the unmet needs of the community. During the last three decades, the emergence of underserved populations such as street drug users, homeless individuals, alcoholics and psychiatric patients, has been a major challenge for public health officials. A process of designing, building and constantly adapting specific services for these underserved populations has been provided by the GGD in close cooperation with local leaders, and social and medical partners, and the police, in the community.

**Dr Valckenier**

In the 1980’s, GGD doctors and case workers started providing outreach medical care for homeless people. In the beginning, the activities took place in the streets, under bridges and nomadic areas. A few years later at several locations, drop-in hours were established in shelters, hostel and day-centres. It became clear that a growing and visible population of homeless people was in need of primary care that could not be provided in normal general practice surgeries. In response, on request of the Amsterdam Association of General Practitioners (AHV) and a health insurance company (AGIS), the GGD Outreach Dr. Valckenier Practice was established in 1992. The practice is named after the Valckenierstreet in Amsterdam, the location where GGD health workers reside and from where outreach activities are provided. Registration at the Dr. Valckenier practice is arranged through the Welfare Department, social service unit for homeless people (Dienst Werk en Inkomen = DWI Amsterdam). At this unit, homeless people can request a postal address and benefit payments, premiums for a health insurance (AGIS), as well as financial debts, are handled automatically.

Homeless people can visit the Dr. Valckenier practice during office hours, and in case of illness can be admitted to one of the shelter-based convalescence care facilities. In response to a growing need for social medical care, in 1997 the Ambulatory Medical Team (AMT) was introduced to visit homeless patients in the streets, social agencies, shelters, prison and clinics. Outreach doctors and care coordinators have been guiding homeless people with their social and medical problems, linking them to needed medical and social services. At thirteen relief locations in Amsterdam about 750 homeless patients are guided for a total of 3,000 consultations, 475 shelter-based convalescence care admissions and 450 general hospital admissions per year.

In our experience, during the social-medical assessment of homeless people, the helper needs to focus on the unique journey, the problems they have collected and the steps to be taken in order to repair the basic support structure. The social problems homeless people encounter are practical problems with obtaining and holding a personal identification card, social benefits, debt control, health insurance, a permit for transportation and a permit to access services. Without these basic supports, homeless people can easily lose their way. It is highly likely that they will get lost in addictions, be rejected by the community due to untreated mental health issues and find themselves without a safe, hygienic place to live. On average, such a sad journey ends after four to five decades.

**Objective**

The aim of this thesis is to describe the journey of social medical decay. Hereto, households at risk of evictions and homeless adults during different phases of homelessness were identified, to find out the pathways into homelessness, personal characteristics, social and medical problems before and during homelessness, mortality, and the contacts with services in Amsterdam. The findings should contribute to the scientific knowledge for prevention and reduction of homelessness, and the provision of social medical care before and during homelessness for those in highest need.
The journey of social medical decay
The steps into social medical decay before and during the different phases of homelessness are described in this thesis. We designed a model, see figure 1, representing the different steps through various boxes.

- **Box 'safe'** (code green) signifies that a housed person is capable to coordinate his own social and medical needs and care.

- **Box A:** (code yellow) signifies that a housed person has a warning to leave his home. This person can have or meet problems that makes one vulnerable to become homeless. This person most probably needs support from public services to keep his home.

- **Box B:** (code orange) signifies that a person did lose his home, and might have hope to return back home. Being recently homeless, the person will be knocking on many doors, and meet or attract new problems that deter or block pathways towards a home.

- **Box C:** (code red) signifies that the person is lost and lonely, and definitely depends on public shelters and services. Being long term homeless, along the road searching for support - a street journey during which he will encounter shelters, soup kitchens, social agencies, clinics and prisons – the person will attract multiple and serious medical problems. He becomes ill and will need to be admitted in a sheltered-based convalescence care facility.

- **Box D:** (code purple) signifies that the person is too long and too far away from home. He can not find a way out. The person can not carry the burden of social and medical disease any longer. The ultimate step is death.

Figure 1 Model of social medical decay

| 'safe' | A | B | C | D |
| green | yellow | orange | red | purple |

A

T

Housed people

R

Recently

Long term

Death

I

homeless

homeless

S

K

Research questions
To explore strategies to prevent people taking the different steps down the pathway of social medical decay, the central question in this thesis is:

What are the characteristics of people at risk of social medical decay, how to find and identify them, and how to help them before and during different phases of homelessness in Amsterdam?

The pathways from boxes A to D were explored by using the following sub-questions:

1. What are the characteristics and social medical risk factors of households at risk of eviction in Amsterdam?
2. How effective is the signalling and referral system for households at risk of eviction in Amsterdam?
3. What are the characteristics, social medical problems and service contacts of recently homeless people before and during homelessness, related to their pathways into homelessness?
4. What are the characteristics, social medical problems and mortality of homeless adults visiting the GGD Outreach Dr. Valckenier-Practice in Amsterdam?
5. What are the characteristics, social medical problems and mortality of homeless adults admitted in a shelter-based convalescence care facility in Amsterdam?

Methods
The central question is divided in what and how questions. To answer what-questions a systematic observation of quantitative data, to describe people, social and medical problems, was used. To answer how-questions both quantitative and qualitative data were collected, by using questionnaires and interviews with homeless individuals and relevant stake-holders, to explore the interaction between problems and care. For this thesis, data were collected during outreach activities between 1997-2008. The research samples and study episodes are shown in figure 2. The journey to find the answers, to describe the process of social medical decay, is reflected in five chapters.

Figure 2 Model of social medical decay and research samples

<table>
<thead>
<tr>
<th>Box A (yellow)</th>
<th>Box B (orange)</th>
<th>Box C (red)</th>
<th>Box D (purple)</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Risk of Eviction</td>
<td>Recently homeless</td>
<td>Long term homeless</td>
<td>Death*</td>
</tr>
<tr>
<td>chapter 2 and 3</td>
<td>chapter 4</td>
<td>chapter 5</td>
<td>chapter 6</td>
</tr>
<tr>
<td>Households at risk of eviction</td>
<td>shelter services + streets</td>
<td>Outreach Dr. Valckenier care</td>
<td>shelter based convalescence care</td>
</tr>
<tr>
<td>rent arrears group n=275</td>
<td>recently homeless n=120</td>
<td>group A n=364*</td>
<td>users group n=629*</td>
</tr>
<tr>
<td>nuisance group n=190</td>
<td></td>
<td>group B n=124</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>group C n=137</td>
<td></td>
</tr>
</tbody>
</table>

*mortality is described in chapter 5 regarding group A and in chapter 6 regarding the convalescence care group.
Chapter 2
Preventing evictions as a potential public health intervention: characteristics and social medical risk factors of households at risk in Amsterdam.

Households with rent arrears and households causing a nuisance, as the major groups at risk of losing their home through a formal eviction, were studied to identify risk factors as a point of entry to apply preventive public health interventions. Annual reports of organizations involved in the eviction process, interviews with employees, and questionnaires applied to households at risk to become evicted, were used. The questionnaire addressed the process of eviction, demographics and underlying problems. For the rent arrears group, employees of twelve housing associations completed a questionnaire for 275 households for whom an eviction notice was served, during September and October 2003. For the nuisance group, employees of thirteen nuisance control care networks completed a questionnaire for 190 households that were on the verge of eviction, for whom an “end of intervention statement” was issued (with this statement the boundaries of voluntary intervention are reached and further attempts of the care network involved is terminated, an annulment of the rent contract from the judge can be requested by the landlord) or households that had already been evicted, between January 2001 to December 2003, for other reasons.

Chapter 3
Evaluation of the signalling and referral system for households at risk of eviction in Amsterdam.

We aimed to evaluate the functioning of the signalling and referral system set up for households at the verge of eviction due to rent arrears and nuisance. We describe the problems signalled in the households concerned and the extent of contacts with the relevant support services, from the perspective of 1) housing associations handling rent arrears, and 2) nuisance control care networks handling housing related nuisance, as the major signalling organisations. Interviews, documents and questionnaires were used for data collection on how underlying social and or medical problems were identified and to what extent contacts with assistance services were existing or initiated. Employees of housing associations and care nuisance control care networks collected data on initial contacts, type of problems and assistance provided.

Chapter 4
Pathways into homelessness: recently homeless adults problems and service use before and after becoming homeless in Amsterdam.

Recently homeless people, the pathways into homelessness, social medical problems and contacts with services, before and after becoming homeless, are described. Social science students conducted interviews with 120 recently homeless people (defined as “last housing lost up to two years ago and legally staying in the Netherlands). Respondents were sampled at popular street hangouts, in day centres, emergency shelters and at a social benefit provider for homeless people, in April and May 2004.

Chapter 5
Outreach care to the homeless adults in Amsterdam: characteristics, social medical problems and mortality between 1997-2008.

Characteristics, status of homelessness, medical problems, reasons for encounter and mortality among homeless adults visiting the GGD Outreach Dr. Valckenier Practice, between 1997-2008, are described. Here to, the results of three studies were aggregated. Group A (n=364) was sampled at a day centre and an emergency shelter between April 1997 and November 1999. Group B (n=124) was sampled in a day centre, an emergency shelter and three residence shelters, in the period September-December 2000. Group C (n=137) was sampled at a social benefit provider for homeless people, in the period February-May 2005. To describe characteristics, status of homelessness and medical problems, data of all three groups were used. To describe reasons for encounter and mortality, ten years after the first encounter, data were used of group A only.

Chapter 6
Shelter-based convalescence care for homeless adults in Amsterdam: a descriptive study.

Data of 629 homeless people admitted in a shelter-based convalescence care facility were collected during outreach care provision, between 2001 and 2008. Data included personal characteristics, medical problems, sources of referral, length of stay and whereabouts after discharge, and mortality. Convalescence care users known to have died up till March 2008 are described. Furthermore, the dynamics of the user profile and the facility over a period of seven years were evaluated.

Chapter 7
General discussion and conclusions.

In the final chapter the general findings are discussed and lessons are drawn for social medical care before and during homelessness in Amsterdam.
References


chapter 2

Households at risk of eviction

Preventing evictions as a potential public health intervention: characteristics and risk factors of households at risk in Amsterdam.

Igor van Laere, Matty de Wit, Niek Klazinga
Preventing evictions as a potential public health intervention: Characteristics and social medical risk factors of households at risk in Amsterdam

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Abstract

Aim: The public health problems precipitating evictions are understudied and no systemic data have been collected. We aim to identify the magnitude of evictions and the characteristics and social medical risk factors of households at risk in Amsterdam. This will help inform policies designed to prevent eviction. Methods: In 2003, case workers of housing associations dealing with rent arrears, and case workers of nuisance control care networks, were interviewed and completed questionnaires about households at risk of eviction. Questionnaires included the processes that resulted in eviction and the characteristics and social medical problems of the households involved. Evicted households were compared with non-evicted households. Results: In Amsterdam, over recent years 3,400 evictions, or four per 1,000 dwellings, took place annually. Of 275 households with rent arrears, 132 were evicted. Of 190 nuisance households, 136 were evicted. In both groups, the largest household group were single male tenants between 25 and 44 years. For those reporting rent arrears, social problems were reported in 71.5% of cases, and 23% of independent risk factors for eviction were being of Dutch origin (OR 2.38 (1.30–4.36) and having a drug-addiction problem (OR 3.58 (0.96–13.39)). For the nuisance households, social problems were reported in 46%, and medical problems in 82%. While financial difficulties were a risk factor for eviction (OR: 8.04 (1.05–61.7)). Conclusions: In Amsterdam, households at risk of eviction consisted mainly of single (Dutch) men, aged between 25 and 44 years, often with a combination of social and medical problems. Financial difficulties and drug addiction were independent risk factors for eviction. Because of the social medical problems that were prevalent, for prevention practice evictions should be considered both a socioeconomical and a public health problem. Preventing evictions deserves full attention as a potential effective public health intervention.

Key Words: Addiction, Amsterdam, evictions, nuisance, pathways into homelessness, public health strategies, rent arrears

Background

Evictions can be considered a public health problem from two perspectives. Evictions are one of the major causes of homelessness [1–5] and, traditionally, public health interventions focus on homeless populations [6]. On the other hand, however, to apply stream prevention strategies, households and their underlying social medical problems that precipitate evictions, can be the focus of public health interventions [7–9]. In this article, we focus on the latter by identifying the characteristics and social medical risk factors of households at risk of eviction in Amsterdam. Although evictions are a well known pathway into homelessness and can have detrimental health effects on evacuees, no systematic data about evictions and related public health problems have been collected on a local or national level [7–12]. In the face of our lack of information, some studies, often only available in local languages, give a preliminary estimate of the magnitude of the problem. In Australia, there are an estimated 100,000 “bailiff assisted” evictions each year [12]. Over the last decade the scale of evictions and homelessness in Canada is described by some as having evolved into a national crisis, although national figures are not available [11], and in the US evictions are believed to number many millions, annually [5]. In the 1990s the European Federation of National Organisations working with the Homeless (FEANTSA) observers in 15 European countries estimated that 1.6 million people were subjected to repossession procedures each year, with 400,000 actually being evicted. Victims of eviction form an important element within what was, at that time, estimated as 2.7 million homeless people rotating between family, short-term accommodation, and services for homeless people [2].

Time series data collected in Europe after the 1990s, mainly collected in the social/public housing sector, are largely incomplete. Most of the national and local data available suggest that evictions have increased over the past decade or so [13–19]. For example, national eviction rates were 0.35% of the social housing stock in the Netherlands in 2007 (0.25% in 1995), 0.4% of dwellings in public housing in Sweden in 2008 (0.9% in 1994), 0.56% of the dwelling stock in England in 2005 (0.2% in 1994), and 0.67% in the local authority letting stock in Scotland in 2007 (0.61% in 2001) [15,16,18,19].

In the housing and social medical literature, few studies have examined the background or stories of homeless people and explored the reasons for eviction and homelessness in that context. We refer to this as the fundamental problem of programmes to prevent evictions and homelessness, is how to quickly identify and support those at most risk. Moreover, housing, social and health services rarely have systematic procedures, including defined warning signs, to recognize exceptional vulnerability and support needs [7–9].

In a previous article we described the functioning of the signalling and referral system set up for households at risk of eviction in Amsterdam. It was based on the major reasons for eviction as warning signs for services; rent arrears, as a silent alarm, and housing-related nuisance, as a loud alarm. It was argued that case workers signalled problems that should more often be shared among social and medical professionals than actually occurred [20].

Aim of this study

Contributing to the knowledge that would help policies to improve the evictions prevention practice, we aimed to describe the magnitude of evictions and households at risk in Amsterdam. Hereto, we first describe the process of evictions as approached by housing associations and nuisance control care networks for nuisance, before we explore the central question of our investigation: What are the characteristics and social medical risk factors of households at risk of eviction in Amsterdam?

Housing associations and the process of eviction for rent arrears

In the Netherlands, since the mid 1990s, social housing associations have been privatized organizations, formerly funded by the government, to increase and improve housing for lower income groups. About 2.4 million dwellings managed by the housing associations make up 35% of the total housing stock, or 75% of the rent stock [15,21].

Regarding the process of evictions, we held interviews with case workers of nine out of 12 housing associations; three were not willing to share information. The following information was reported. In the case of rent arrears, housing associations send tenants a letter to pay the bill. After six to eight weeks, a second letter is sent to inform tenants of the option of seeking assistance from a debt control agency. It is the tenant’s responsibility to contact the agency. This service is the result of an agreement between housing associations and debt control agencies in Amsterdam, to reduce rent arrears in order to prevent eviction. If the bills remain unpaid, the bailiff is sent in after 10 to 12 weeks. If households do not cooperate, and the rent arrears are not dealt with within two to four weeks, the household will be presented to a judge for a court process.

With a court order, an eviction can be planned and executed by the community housing effects management in cooperation with the bailiff and the police.

Besides sending letters to rent defaulters, seven out of 12 housing associations tried to contact tenants by telephone and three had hired social workers to conduct home visits. Of problematic rent defaulters no data on the characteristics and underlying problems were available. Some rent case workers had the impression that most evictions suffered from addictions and/or mental health problems. One case worker reported a single living person with AIDS who was too frail to fulfill the bureaucratic duties, and for whom administrative and medical assistance was introduced after a home visit. In general, housing associations reported little support for tenants who do not actively seek help themselves. During eviction no help was offered to find another house or shelter.

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Case workers reported that they expected most evicted tenants to stay with family and friends but there were no data to verify this. The proportion of evicted tenants that became homeless was unavailable.

Nuisance control care networks and process of eviction for nuisance

In 1993 the first nuisance control care network started in Amsterdam. Since then several networks have been established in Amsterdam and other Dutch cities. Today, households causing repetitive nuisance or households in need of assistance due to severe self neglect, addiction, mental health problems and hygienic problems can be reported to 13 nuisance control care networks spread over the city of Amsterdam. Each local network has a social mental health nurse from the Municipal Public Health Service (GGD) Safety Net department who acts as a liaison between the households and housing, social and medical services, in close cooperation with the police. GGD Safety Net nurses, who are familiar with multi-problem households and pathways to find professional assistance, conduct home visits to identify underlying problems and introduce tailored assistance. The aim of this service is to improve the social and medical condition of reported households in order to decrease nuisance to prevent eviction.

In cases where the nuisance problems are not resolved an “end of intervention statement” is issued. This statement states that the intervention has ceased and no further interventions will take place. The landlord can request an annulment of the rental contract from the court, after which the process follows the same procedures as for rent arrears.

We held a meeting with case workers of all 13 nuisance control care networks, to collect information on how households at risk of eviction were handled, how these households were identified and approached, what problems were encountered and how these problems were resolved. Case workers told us that about one third of the nuisance households were reported to the network by the police (one in five by neighbours and the rest by assistance services). In approximately three quarters of cases the accommodation was managed by a housing association and nearly one in five were private rentals. According to case workers many people in nuisance households lived alone. Interventions often included treatment by addiction services and/or mental health services. Only a few households required compulsory treatment in a mental health clinic. In most cases the intervention was successful in dealing with the nuisance and eviction was prevented. One in 20 households were issued an end of intervention statement and/or were evicted. It was not possible to estimate the proportion of the evicted nuisance households that became homeless. Alternative accommodation (e.g. an emergency shelter) would usually be offered to the household.

Methods

With regard to the magnitude of evictions in Amsterdam, we approached all relevant stakeholders to collect data and annual reports. In the summer of 2003, all 12 housing associations and all 13 nuisance control care networks were approached in order to collect data on characteristics and social medical problems of households at risk of eviction in Amsterdam. Individual owners of private rented houses (100,000 houses in Amsterdam) were not approached for practical reasons. We decided not to contact households at risk of eviction for logistic, financial and confidentiality reasons. Moreover, in our approach, we focused on the warning signs for the detection of vulnerable household and their problems that services should respond to, rather than exploring the reasons why the problems exist. Case workers of housing associations and nuisance control care networks are the first to be in touch with the people in households at risk of eviction and were therefore selected as the most suitable to provide information. In consultation we designed a one page questionnaire to systematically collect data that was not registered by relevant organizations and service providers.

Participants and data collection

For the rent arrears group, case workers completed a questionnaire for each household for which a court order was requested, in September or October 2003. It was estimated that 330 households would receive a court order over a two month period. This was based on the 2,000 court orders annually reported by the housing associations [22].

For the nuisance group, case workers completed a questionnaire for every household that received an end of intervention statement or was known to be evicted during 2001 to 2003 for other reasons. As a central monitor to report (reasons for) evictions did not exist, we anticipated a small overlap of nuisance and rent arrears. We analyzed 10 out of 13 separate annual reports available on 2001 and 2002, and found 753 cases of housing-related nuisance, 30 end of intervention statements and 35 households evicted per year.

Data were collected on the process of eviction, characteristics and underlying problems of households at risk. Case workers reported if households had been evicted or were in the process of being evicted and if evicted tenants had any plans about where to stay after eviction and their actual whereabouts after the eviction. We analyzed data under the subheadings of social and medical problems. Social problems included anti-social behaviour, drop of income and financial mismanagement. Medical problems included addiction to alcohol, drugs or gambling, mental health problems, and physical health problems. The items chosen were based on problems that were (potentially) in need of support. Unsupported, these social and medical problems are often encountered among homeless people in Amsterdam [9,23]. Although gambling and alcohol/ drug problems could also be considered a social problem, these items were categorized under the subheading medical problems because in daily practice addictions are referred to medical services. Data collected by case workers was anonymized. The study design did not need a process of ethical approval according to the Dutch Act on Medical Research.

Statistical analysis

Demographics, social and medical problems are described for both the rent arrears and nuisance groups. The characteristics of non-evicted and evicted households were compared and tested with Chi-square or Fisher exact, to identify risk factors for eviction. Multivariate logistic regression analyses were used to study the independent association of the risk factors with eviction. The regression model was constructed backwards, based on a significant change in log likelihood ratio (p=0.05). We used the statistical package SPSS 14.0.

Results

Evictions in Amsterdam

In Amsterdam, between 1999 and 2007, the number of owner-occupied dwellings almost doubled, while the total rent sector decreased by 10.4% (see Table I). In the total rent sector, the number of households with “standard” rent arrears, three months or longer, was not available. Based on information from housing associations, 11% had rent arrears – approximately 35,000 tenants. For around 2% of tenants in both the 21 rent sectors an application for a court order for eviction was issued per year, of which half-three quarters were presented to the housing effects management. Of these, one third up to half were actually evicted per year. In the social rent sector the number of bailiff assisted evictions ranged between 3.2 and 5.3 per 1,000 dwellings per year, with a peak in 2005. The number of evictions in the private rent sector cannot be calculated by deducting the social evictions from the total number, because this figure includes all kinds of properties evicted. In Figure 1 the numbers in the eviction process are illustrated.

The city areas with the most evictions (southeast, north and east) correspond with the areas where the percentage of non-Western immigrants, unemployment, poverty, gun possession and unsafe housing environment are above the city average [24,25]. Overall, during the process of the detection of rent arrears by the housing associations to the moment of the actual eviction, an episode that can last about six months, the vast majority of households seem to find a (temporary) solution not to become evicted. A small proportion do not seem to manage their rental situation. We consulted the assistance networks for rent arrears and nuisance, and case workers applied questionnaires to households at risk of eviction in Amsterdam.

Questionnaires for households at risk of eviction

The 275 questionnaires completed for all households at risk of eviction in September and October 2003, showed that in the rent arrears group nearly half were evicted (46.132; 48%), ranging from 2% to 100% per housing association. Besides rent arrears, other reported reasons for eviction were housing-related nuisance (7%) and illegal use of the house (8%). Case workers knew the households of 23 households: six found another house, five stayed with family or friends, eight stayed in other facilities and four households were known to have become homeless. For 83% of the households the destination after eviction was unknown.

The 190 questionnaires completed by the nuisance control care networks, for reported nuisance households between 2001 and 2003, showed that for 140 households an end of intervention statement was issued, and nearly three quarters were evicted (81% 136; 71%). Besides nuisance, rent arrears were reported in 24% (14%44) and illegal use of the house in 5%. Case workers reported 44 households who had
Table I. Population, houses and evictions in Amsterdam 1999–2007.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>House</th>
<th>Occupied</th>
<th>Rent</th>
<th>Social rent</th>
<th>Total rent</th>
<th>Rents</th>
<th>Court</th>
<th>Effect</th>
<th>Management</th>
<th>Total</th>
<th>Evictions/1,000</th>
<th>Evictions/1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>727,005</td>
<td>566,979</td>
<td>51,814</td>
<td>199,432</td>
<td>115,733</td>
<td>85,9</td>
<td>6,015</td>
<td>7</td>
<td>380</td>
<td>3,8</td>
<td>1,296</td>
<td>4,1</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>716,259</td>
<td>560,180</td>
<td>54,611</td>
<td>200,874</td>
<td>115,495</td>
<td>85,31</td>
<td>5,815</td>
<td>2,417</td>
<td>764</td>
<td>3,8</td>
<td>2,128</td>
<td>3,9</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>716,540</td>
<td>572,002</td>
<td>58,755</td>
<td>204,771</td>
<td>106,641</td>
<td>84,71</td>
<td>5,713</td>
<td>2,772</td>
<td>737</td>
<td>3,6</td>
<td>1,159</td>
<td>5,7</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>725,328</td>
<td>572,888</td>
<td>61,093</td>
<td>205,301</td>
<td>106,494</td>
<td>83,6</td>
<td>5,972</td>
<td>3,222</td>
<td>763</td>
<td>3,7</td>
<td>2,132</td>
<td>5,9</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>736,030</td>
<td>574,952</td>
<td>64,492</td>
<td>203,900</td>
<td>106,560</td>
<td>82,81</td>
<td>6,490</td>
<td>3,702</td>
<td>652</td>
<td>3,2</td>
<td>1,340</td>
<td>4,3</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>748,765</td>
<td>575,676</td>
<td>75,980</td>
<td>206,655</td>
<td>101,045</td>
<td>80,33</td>
<td>6,656</td>
<td>4,408</td>
<td>974</td>
<td>4,9</td>
<td>1,469</td>
<td>4,9</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>734,012</td>
<td>576,215</td>
<td>76,923</td>
<td>190,801</td>
<td>95,070</td>
<td>79,16</td>
<td>6,185</td>
<td>3,785</td>
<td>1,064</td>
<td>5,3</td>
<td>1,413</td>
<td>4,7</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>743,027</td>
<td>578,507</td>
<td>79,824</td>
<td>196,071</td>
<td>102,612</td>
<td>78,9</td>
<td>5,991</td>
<td>4,551</td>
<td>1,026</td>
<td>5,2</td>
<td>1,429</td>
<td>4,8</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>741,104</td>
<td>579,023</td>
<td>83,074</td>
<td>191,215</td>
<td>95,015</td>
<td>78,5</td>
<td>5,491</td>
<td>4,167</td>
<td>835</td>
<td>4,4</td>
<td>1,303</td>
<td>4,6</td>
<td></td>
</tr>
</tbody>
</table>

On 1 January 2006, Amsterdam had 743,027 citizens, 49.3% were male, 21.1% were between 0–20 years, 11.3% were older than 65 years, and 14.1% received unemployment or disability benefits. Among a total of 406,720 households, 54.6% were single, 19.6% were adults without children, 15.2% adults with children, 9.5% single parents and 1.1% lived in other household compositions. Of all households 19.1% received housing benefits. [Amsterdam Bureau of Statistics, 2007].

Social evictions were built and police assisted, excluded were households that left the house before the eviction: 2004: 57; 2005: 146; 2006: 133, 2007: 117 [19].

Table II outlines the demographics of households at risk of eviction and those evicted. In the rent arrears group, 49% were single men, 41% were Dutch, 19% were born in Surinam/Netherlands Antilles, and 87% were between 25–55 years old. The average age was 39 years (range 19–73 years). In the housing group, 61% were single men, and 88% were between 25–55 years old. The average age was 41 years (range 17–71 years). There were no significant differences between evicted and non-evicted households in demographic data.

Table III outlines the social and medical problems. In the rent arrears group, social problems were reported three times more often than medical problems. For more than half (56%), financial mismanagement was reported. Among the medical problems case workers most often reported addictions and mental health problems.

When compared to non-evicted households, those who were evicted were more likely to be single (p=0.002) and of Dutch origin (p=0.02). Reduced income and financial mismanagement were significantly less frequent among those evicted (p<0.05). However, addiction, specifically to drugs, was significantly more frequent among the evicted compared with the non-evicted (p<0.005). Multivariate analyses showed that independent factors for an increased risk for eviction were being of Dutch origin (OR 2.4 (1.3–4.4)) and having a drug-related problem (OR 3.6 (1.0–13.4)). The factor associated with a decreased risk was financial mismanagement (OR 0.3 (0.1–0.7)).

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Table II. Reported demographics of households at risk of eviction and evicted households in Amsterdam.*

<table>
<thead>
<tr>
<th>Housing associations</th>
<th>Non-evicted</th>
<th>Evicted</th>
<th>Not evicted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (n=275)</td>
<td>88</td>
<td>63</td>
<td>46</td>
</tr>
<tr>
<td>Evicted (n=132)</td>
<td>26</td>
<td>15</td>
<td>9</td>
</tr>
<tr>
<td>Not evicted (n=143)</td>
<td>62</td>
<td>48</td>
<td>46</td>
</tr>
</tbody>
</table>

Social problems: Antisocial behaviour, drop of income, financial management, alcohol, drugs, mental health, physical health.**

Note: *Significant at p<0.05; **Significant at p<0.005.

For most households a mix of antisocial behaviour, addiction and/or mental problems was reported. Addiction was often reported, in almost two thirds (61%), and mental health problems in more than one third (38%). Univariate analysis revealed that financial mismanagement and drug abuse were more frequent among the evicted households than among the non-evicted (p<0.05). Multivariate analyses demonstrated financial mismanagement as an independent risk factor for eviction (OR 8.0 (1.1–61.7)).
Preventing evictions as a potential public health intervention

Discussion
To contribute to eviction prevention, this study aimed to describe the magnitude of evictions and the households at risk. In Amsterdam, between 1999 and 2007, around 1,400 households were evicted per year. The eviction rate was around four evictions per 1,000 dwellings per year. Questionnaires, applied to households at risk of eviction due to rent arrears and nuisance, by case workers of housing associations and nuisance control care networks, often reported single households (65% in the rental group and 74% in the nuisance group), between 25 and 44 years of age, and (in the rental group) of Dutch origin (41%). Case workers often reported underlying social and medical problems, and financial difficulties (in the nuisance group) and drug use (in the rent arrears group) were independent risk factors for eviction.

The prevalence of problems reflects the focus of the different organizations. Housing associations focus on rent and financial problems, leaving the medical problems unattended and thus a risk factor for eviction. For nuisance control care networks the focus is on medical problems, leaving the financial problems a risk factor. Furthermore, it was surprising that gambling, and physical health problems as a source of social handicap and/or drop of income as a source for rent arrears, were rarely reported. This might be the result of underreporting by the housing associations and nuisance control care networks, because their focus is on other problems. The fact that medical problems were reported by one quarter of the housing organizations indicates that rent arrears can be an important indicator of underlying medical problems.

Limitations of this study is that data were not directly collected from the households concerned, but from frontline workers who first made contact with these households. This second hand account does potentially add a layer of interpretative bias. Most likely, this has resulted in underreporting of medical problems, such as gambling addiction and physical health problems. The design of this study does not allow us to determine the direction of causality between rent arrears and/or nuisance and underlying problems. However, it is of importance that for single (male) households, especially those with drug problems, social and medical support should be introduced actively and simultaneously to keep these households.

Over recent years, the eviction rate in Amsterdam (0.4%) has become comparable with that of other large cities in the Netherlands [13]. Probably due to differences in political climate, housing policies, socioeconomic, legal protection, eviction procedures and safety net assistance available, the eviction rate in Amsterdam is different than that in cities abroad. For example, in Baltimore, USA, evictions were 15 times more common than in Amsterdam (5.8% versus 0.39%) [5]. In Toronto, Canada, they were twice as common as in Amsterdam (0.83%) [11]. In Stockholm, Sweden, evictions were just as common as in Amsterdam (0.25%) [18], possibly resulting from the fact that landlords are obliged, by both the Housing Act and the Sweden’s Society Law, to inform social welfare offices in case they apply for the Enforcement Administration to evict tenants [26]. In Amsterdam, most housing associations had an administrative, non-personal relationship with their tenants. Financial support for debts was offered but households in need had to actively seek this. Little or no assistance was offered actively. The lack of support for tenants under threat of eviction is similar in Australia, Britain, Canada and the US [5,11,12,27]. In Amsterdam no one seemed to take responsibility for the people in households who had been evicted, no formal assistance to guide them was available, nor was there any information on what could be done to households after eviction. As a result of this dearth of data we cannot ascertain what proportion of evicted households became homeless.

In our study, the households at risk of eviction, and those actually evicted, were more often living alone (two thirds, up to three quarters), than their counterparts abroad. In Toronto among 277 tenants facing an eviction, 31% were living alone, most were in the 25-44 age group and 55% were Canadian [11]. In Australia, the percentage living alone among 145 evictees was 33% [12]. Among the Danish, the eviction rate was 2.7% in a combination with heavy drinking and/or mental health problems, and the absence of a confident carer. They were some of the risk factors for high likelihood of payment default, eviction and the entry to homelessness [3,4].

In Sweden, Germany (Manheim) and the US (Michigan) similar demographic profiles were observed among households at risk of eviction. Social and medical problems differed slightly, possibly also as a result of the methodology. In Sweden, households with a criminal record, a dysfunctional family background, serious financial difficulties and poor health were overrepresented among evictees [1,28]. In Manheim, the sample was restricted to the mentally ill, and unemployment and alcoholism were found to be risk factors for becoming homeless after eviction [29]. In Michigan, the sample was restricted to female welfare recipients, and a low level of education and use of hard drugs were risk factors for eviction [30].

Practice implications
In daily practice, medical professionals seem to consider evictions a socioeconomic problem rather than a public health problem [31]. It seems that vulnerable people have to become homeless and ill first before they are considered a public health problem and get in contact with public health workers [9,32]. However, the results of our study show that a substantial proportion of households at risk of eviction suffer from medical as well as social problems, making rent arrears and nuisance important signals for an outreach approach also by medical workers. For nuisance, these signals are acknowledged and handled through the nuisance control care networks.

However, for rent arrears, there is no formal response. Housing associations should be able to report households at risk of eviction to a central point that handles these reports with an adequate response and social and unmet needs to prevent eviction. Outreach support should be coordinated efforts by landlords, social workers and medical workers [33]. Future studies could explore to what extent households at risk of eviction are being identified and reached by these efforts. Preventing evictions deserves full attention as a potential effective public health intervention.

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References
chapter 3

Help for households at risk of eviction
Evaluation of the signalling and referral system for households at risk of eviction in Amsterdam.

Igor van Laere, Matty de Wit, Niek Klazinga
Evaluation of the signalling and referral system for households at risk of eviction in Amsterdam

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Abstract
In Amsterdam, over 1,400 households are evicted each year. We describe the results of an evaluation of the functioning of the signalling and referral system, set up for households at risk of eviction, through a qualitative and quantitative study. Interviews and questionnaires completed by employees of 12 housing associations (for rent arrears) and by employees of 13 nuisance control care networks (for nuisance), were used. Data on households with rent arrears, for which a court eviction order was requested, were collected prospectively in September and October 2003, and retrospectively on households causing nuisance and/or who were known to be evicted due to nuisance in 2001–2003. Functioning of signalling, of the ‘alarm’ of problems underlying rent arrears and/or nuisance, was evaluated by the extent of problems that were identified by the employees. Functioning of referral was evaluated by comparing the identified problems with the assistance contacts.

For 275 households with rent arrears, housing associations reported social problems in 196 (71%), of whom 94 (48%) were in contact with social assistance, and medical problems in 82 (22%) of whom 18 (29%) were in contact with medical assistance. House visits resulted in a much higher identification of problems, and were associated with a reduced eviction risk [relative risk 0.57 (95% confidence interval: 0.43–0.75)]. For 190 nuisance households, nuisance control care networks reported social problems in 103 (54%), of which 13 (13%) were in contact with social assistance, and medical problems in 155 (82%), of which 142 (90%) were in contact with medical assistance.

To prevent evictions in Amsterdam, housing associations should improve their signalling role by conducting more house visits, and they should refer more households to medical assistance. Nuisance control care networks should refer more households to social assistance. Only a systematic and integrated approach can keep more households at home.

Keywords: evictions, homeless, nuisance, preventing homelessness, public health strategy, rent arrears

Introduction
There are characteristics and risk factors that are specific to those households who have been evicted from their homes. Likewise, there are specific features to those local policy-makers and service providers responsible for public assistance in the community to those households at risk of eviction (Nettleton & Burrows 1998, Crane & Warnes 2000, van Laere 2005, Allen 2006, Salize et al. 2006, Phinney et al. 2007). In order to prevent evictions and homelessness, it is essential that early signals of impending homelessness are recognised and tailored assistance provided in response. Efforts should be aimed at protecting households at risk, to prevent the individual from becoming homeless and society against the burden of homelessness. This protection is embedded by recognizing the human right to adequate housing (Thiele 2002).

In Amsterdam, The Netherlands, between 2000 and 2006, the number of evictions increased from 3.9 up to 4.8 evicted households per 1,000 rented houses annually, while the total number of rented houses decreased from 85.3% to 78.9% of the total housing supply (van Laere 2005. Amsterdam Bureau of Statistics 2006, Amsterdam Federation of Housing Associations 2006, Evictions in Amsterdam 2007). The main reasons for eviction were rent arrears (87%), housing-related nuisance (7%) and illegal use of the house (6%) (Aedes 2006).

The benefits of co-ordinating the efforts of housing, social work and medical professionals have been described (Crane & Warnes 2000, van Laere 2005, Allen 2006). However, there is little information available on the interventions used to help households at risk of eviction in the medical literature. We aim to describe how the existing assistance programmes for households at risk of eviction in Amsterdam function, in particular how they relate to situations where underlying problems have been identified or where there has been a referral for assistance. In this paper, the term signalling is used for households at risk to become evicted from their homes because of rent arrears and housing-related nuisance, as ‘signals of alarm’ to be actively picked up and acted upon by community services. In Amsterdam, for both rent arrears and nuisance, a variety of initiatives are taken to reduce the number of evictions.

Assistance for rent arrears
In Amsterdam in 2002, housing associations signed an agreement with debt control agencies to cooperate on the reduction of rent arrears to prevent evictions (Amsterdam Federation of Housing Associations 2006). In case of rent arrears, employees of housing associations send households a letter to pay the bill. After 6–8 weeks, a second letter is sent in which households are informed of the possibility of seeking assistance from a debt control agency. It is the tenant’s responsibility to contact the agency.

If bills remain unpaid, the bailiff is sent in after 10–12 weeks. If households do not cooperate, and the financial situation is not solved within 2–4 weeks, the household will be presented to the judge for a court order for eviction. With a court eviction, the owner of the house, represented by the bailiff, can go to the city hall to report the household. An eviction can thus be planned and executed by the community housing effects management. The actual eviction is carried out by the housing effects management, the bailiff and carriers, as supervised by the police.

According to the Amsterdam Eviction Monitor, 3,512 households were reported to debt control agencies in 2001, up to 8,139 in 2005 (Poverty Monitor Amsterdam 2006). Despite an annual increase in contacts with debt control agencies, the number of evictions increased from 1,296 in 1999 up to 1,429 in 2006 (van Laere 2005. Evictions in Amsterdam 2007). The number of households with rent arrears that were eventually assisted and resulted in eviction is unknown.

Shelter organisations noticed evicted households visiting their shelters, and in response they introduced a social outreach team to conduct home visits at households with rent arrears, to make arrangements with social benefit providers, debt control agencies and bailiffs. The outreach team supported 469 households in 2003 and 609 in 2004, mostly single men between 30 and 50 years old, of whom in 90% of cases immediate eviction was prevented (Fransman 2003).

Assistance for nuisance
In Amsterdam in 1993, the first nuisance control care network was started (in Dutch: Meldpunt Zorg en Overlast). Within the city of Amsterdam and in other cities in The Netherlands, these networks have been introduced. Today, households causing repetitive nuisance and/or households in need of assistance because of severe self-neglect, addiction, mental health problems and hygiene problems can be reported to 13 formalised and government-funded nuisance control care networks spread over the city of Amsterdam.

For each local network, a social mental health nurse of the Municipal Public Health Service (GGD) Safety Net department acts as a liaison between the households and employees of housing, social and medical services represented in the network, in close cooperation with the police. GGD Safety Net nurses, who are familiar with multi-problem households and pathways to find professional assistance, conduct home visits to identify underlying problems and introduce tailored assistance in response. The aim of this service is to improve the social and medical conditions of the households reported, to decrease nuisance and to prevent eviction.

In cases where the network fails to solve the problems, despite professional assistance, an end of intervention statement is issued. This statement signifies that the intervention has ceased and no further interventions will take place. An annulment of the rent contract from the judge can be requested by the owner of the house. After a court eviction, the process follows the same procedures as for rent arrears.
Eviction prevention in Amsterdam

In Amsterdam, households causing nuisance and/or those who raise concern are increasingly reported. In 2003, according to the Amsterdam Police Safety Index, 5372 confused persons were reported to the police, housing-related nuisance, 11,920 times; and drug-related nuisance, 2517 times. In 2004, the numbers were 5227, 12,380 and 3337 times, respectively (Safety Index Amsterdam 2003 and 2004, 2005). The number of individuals assisted by the GGD Safety Net department increased from 3216 in 2001, up to 4751 in 2004. Dutch mental health problems, substance abuse and chronic addiction and/or mental health problems accounted for the majority of cases (van Brussel & Bouter 2005). Because the overlap of reporting to different agencies is not known, the total number of households causing domestic/public nuisance cannot be determined.

Overall, services share little statistical information. The existing systems were developed for the delivery of service and not for information sharing. We were unable to identify the size and nature of households at risk of eviction or the underlying problems that needed attention because of the paucity of information available to us. The effects of public assistance remain obscure, when only using the available information. Therefore, we organized an additional data collection concerning households at risk of eviction.

Objective of this study

We aimed to evaluate the functioning of the existing assistance for households at risk of eviction because of rent arrears and nuisance, in terms of signalling and referral by the two systems first in line to become aware of households at risk of eviction: housing associations (evictions resulting from rent arrears) and nuisance control networks (nuisance resulting from nuisance). Signalling is defined as the identification of social and medical problems in households at risk of eviction. Referral is defined as the extent of contacts between households and relevant assistance institutions.

Methods

Qualitative and quantitative data were collected. Interviews were conducted with employees of all 12 housing associations available and employees handling nuisance through all 13 nuisance control care networks in Amsterdam. In the summer of 2003, interviews were held to learn how employees handle households at risk of eviction, how these households are approached, what problems are encountered and what actions are being taken.

We decided not to apply questionnaires directly to households concerned, for logistic, financial and confidentiality reasons. The study design did not need a process of ethical approval according to the Dutch Act on Medical Research. In consultation with employees of housing associations and nuisance control care networks, we designed questionnaires to collect data, from their own records, on households at risk of eviction or already evicted. We designed a one-page questionnaire in order to ensure employees would complete questionnaires (anonymously) during their daily routine.

For the rent arrears group, employees prospectively completed a questionnaire for every household for which a court eviction order was requested, in September or October 2003. An estimated 330 court orders were expected in a period of 2 months. This was based on an extrapolation of around 2000 court orders reported by 86% of the housing associations annually (Amsterdam Federation of Housing Associations 2006).

For the nuisance group, employees retrospectively completed a questionnaire for every household that had received an ‘end of intervention statement’ or was known to be evicted in 2001 to 2003. Nuisance households can be evicted because of rent arrears, without an end of intervention statement. As a central monitor to report (reasons for) evictions did not exist, we anticipated a small overlap of nuisance and rent arrears. Analysis of 10 out of 13 separate annual reports available in 2001 and 2002 produced 725 cases of housing-related nuisance, 30 end of intervention statements and 35 households evicted per year. After extrapolation to a 5-year period, we estimated a study population of approximately 225 nuisance households.

Collected data

Employees of housing associations contacted house- holds with rent arrears by letter, telephone or home visit. Nuisance control control agencies evicted, based on letters, or otherwise referred the visits for all cases. All employees reported if an eviction took place or not.

To daily practice, underlying problems were assessed by employees themselves, and were divided into social and medical problems, so as to identify which problems should be referred to social and/or medical workers. Social problems included: antisocial behaviour (in the nuisance group), reduced income and financial difficulties. Medical problems included: addiction or misuse of alcohol, drugs and gambling, mental health problems and physical health problems.

Social assistance could be provided by the police (in case of nuisance), social workers and debt control agencies. Medical assistance could be provided by a general practitioner, addiction services, mental health services and the GGD Public Health Service (van Brussel & Buster 2005). We studied the extent of total contacts with the overall assistance.

Statistical analyses were performed using SPSS 14.0 (SPSS Inc., Chicago, IL, USA), and were mainly descriptive. Association between categorical variables was assessed using chi-square test and the chi-square test for trend where appropriate.

Results

Qualitative information rent arrears group

During interviews, employees of seven housing associ- ations provided the following information. Besides sending letters to households with rent arrears, they tried to contact the households by telephone and three out of 12 housing associations had hired social workers to conduct home visits. In regard to home visits, it was not always possible to reach certain households, in particular single households, where individuals were absent for various reasons including being in a clinic, in prison or abroad. In general, housing association employees reported little support for households who do not actively seek help themselves. During eviction, no help was offered to find another house or shelter.

Housing association employees who had contact with households found the most common scenarios where an eviction took place included a combination of financial difficulties, alcohol/drug addiction and mental health problems among mainly single (male) households. Several households could therefore assistances were based on financial arrangements. In some cases with evident health issues, and in case of nuisance, employees would alert the GGD Safety Net department for assistance.

Regarding prevention of eviction because of rent arrears, the effect of the agreement between housing associations and debt control agencies, to invite a tenant by letter to a debt control agency, could be evaluated. Housing associations could not provide data reflecting the number of letters sent, nor the number of rents that were consequently referred to debt control agencies. We could not determine if those households at most risk of eviction were reached by means of letters. Contacts by telephone or home visits were reported only for this study.

Questionnaires rent arrears group

The 275 questionnaires completed for all households at risk of eviction by the housing associations employees showed that in the rent arrears group, nearly half became evicted (n = 132; 48%), ranging from 22% to 100% per housing association. Beside rent arrears, other reasons for eviction reported were housing-related nuisance in 7% and illegal use of the house in 8%. Evicted households were more often single (P = 0.003) and of Dutch origin (P = 0.007), than households that were not evicted. The mean age of the main tenant was 39 years, the majority (87%) were between 25 years and 55 years; see Table 1.

In Table 2, the benefit of personal contact is demon- strated. For every two out of five households, “no contact” was reported. Sixty-one per cent of these “no contact” households became evicted. Degree of home visit was significantly associated with eviction (r2 = 0.17). For a home visit was associated with a reduced risk of becoming evicted [relative risk 0.57 (95% confidence interval: 0.43–0.75)]. We note that more than 80% of the home visits were performed by two housing associations. As shown in Table 3, social problems were three times more often reported than medical problems (71% versus 23%). Problems such as financial difficulties, addiction and mental health problems were most often reported.

The 86 households who received a home visit were more likely than the 189 who received no visit to be identified with social problems: 91% versus 63%, respectively (r2 = 0.25, d.f. = 1, P = 0.001). For medical problems, the rates were 37% and 15%, respectively (r2 = 0.15, d.f. = 1, P = 0.001). Among the medical problems, mental health problems were more often identified among households that were visited than those without a home visit: 21% versus 7% (r2 = 0.12, d.f. = 1, P = 0.001). Within the 196 households in which social problems were identified, 94 (48%) were in contact with social assistance. Almost three quarters of the households with reduced income were in contact with social assistance. Within 62 households in which medical problems were identified, 18 (28%) were in contact with medical assistance. Out of 30 households in which individuals were identified with addiction problems, 10 were in contact with medical assistance; out of 33 households in which individuals were identified with mental health problems, one was in contact with medical assistance.

Quantitative information nuisance group

During interviews, employees of nuisance control care networks provided the following views on the problems. About one-third of the nuisance households were reported to the network by the police, one in five by neighbours and others by several assistance services. In about three quarters, the house owner would be a housing association and nearly one in five private rent. Most of the reported nuisance household consisted of single men or women with antisocial behaviour, financial
Housing associations and reported contact with households at risk of eviction and evicted households in Amsterdam*

<table>
<thead>
<tr>
<th>Housing associations</th>
<th>Nuance control care networks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (n = 275)</td>
<td>Evicted (n = 130)</td>
</tr>
<tr>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Households composition</td>
<td></td>
</tr>
<tr>
<td>Single men</td>
<td>128</td>
</tr>
<tr>
<td>Single women</td>
<td>42</td>
</tr>
<tr>
<td>Adults without children</td>
<td>36</td>
</tr>
<tr>
<td>Single parent</td>
<td>31</td>
</tr>
<tr>
<td>Parents with children</td>
<td>24</td>
</tr>
<tr>
<td>Country of origin</td>
<td></td>
</tr>
<tr>
<td>The Netherlands</td>
<td>105</td>
</tr>
<tr>
<td>Surinam and Antilles</td>
<td>48</td>
</tr>
<tr>
<td>Monaco</td>
<td>19</td>
</tr>
<tr>
<td>Turkey</td>
<td>19</td>
</tr>
<tr>
<td>Other</td>
<td>64</td>
</tr>
<tr>
<td>Age main tenant (years)</td>
<td></td>
</tr>
<tr>
<td>15–24</td>
<td>11</td>
</tr>
<tr>
<td>25–54</td>
<td>83</td>
</tr>
<tr>
<td>55–64</td>
<td>55</td>
</tr>
<tr>
<td>&gt;65</td>
<td>17</td>
</tr>
</tbody>
</table>
| * Known to all 12 housing associations (September–October 2003), and 13 nuance control care networks (January 2001–December 2003) in Amsterdam.
† Social assistance = social work and debt control agency.
‡ Medical assistance = general practitioner, addiction health service, mental health service and municipal public health service (GGD).

Table 2 Housing associations and reported contact with households with rent arrears at risk of eviction and evicted households*

<table>
<thead>
<tr>
<th>Households at risk of eviction (n = 275)</th>
<th>Evicted (n = 130)</th>
<th>Contact with households</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No contact</td>
<td>99</td>
<td>36</td>
<td>60</td>
<td>81</td>
</tr>
<tr>
<td>Contact by telephone</td>
<td>76</td>
<td>28</td>
<td>35</td>
<td>46</td>
</tr>
<tr>
<td>Contact by house visit</td>
<td>86</td>
<td>31</td>
<td>26</td>
<td>30</td>
</tr>
<tr>
<td>Missing</td>
<td>14</td>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Known to all 12 housing associations (September–October 2003) in Amsterdam, The Netherlands.

Interventions often included the introduction of assistance by addiction and/or mental health services. For only a few households, coercive treatment in a mental health clinic would be applied.

After intervention of the network, in the majority of households, nuance would decrease and eviction could be prevented. For about one in 20 households, an end of intervention statement would be issued and/or an eviction would follow. During eviction, and if contact was possible, assistance for alternative housing in a shelter would mostly be offered.

Questionnaires nuance group

The 190 questionnaires completed by the nuance control care networks for households at risk of eviction in 2001 to 2003 showed that for 140 households, an end of intervention statement was issued, and nearly three quarters were evicted (n = 136, 71%). Besides nuance, rent arrears were reported in 24% (n = 44) and illegal use of the house 5%. In the total nuance group, one in five households had children, whereas among the evicted nuance households nuance household's corresponding figure was 15%. The mean age of the head of household was 41 years (range 17–71 years); the majority (88%) were between 25 and 55 years (see Table 1).

In Table 4, the social and medical problems and extent of contacts and referrals to assistance are shown. Social problems were reported in more than half (54%), although only a small proportion (13%) reported having received assistance from social work departments or debt control agencies, possibly leaving rent arrears as the reason for eviction. Evicted or not, more than half of the households with addiction problems and almost three quarters of the households with mental health problems were in contact with medical assistance. Of 155 nuance households with medical problems, only 12% had contact with a general practitioner.

Discussion

The city of Amsterdam had two separate assistance networks that worked to prevent evictions by addressing underlying problems associated with the two major reasons for evictions to be signalled: rent arrears as a "silent signal" and housing-related nuance as a "loud signal" (van Brussel & Bouter 2000, van Laer 2003). Comparable with assistance networks abroad (Crane & Warnes 2000, Allen 2006), the Amsterdam networks had a different approach to providing and reporting their activities. Because of the fact that agencies only recorded information that was pertinent to the provision of their service information, we had to put the pieces of
Eviction prevention in Amsterdam

I. van Laere et al.

Eviction prevention in Amsterdam

References

chapter 4

Recently homeless adults
Pathways into homelessness: recently homeless adults problems and service use before and after becoming homeless in Amsterdam.

Igor van Laere, Matty de Wit, Niek Klazinga
Research Article
Pathways into homelessness: recently homeless adults problems and service use before and after becoming homeless in Amsterdam
Igor van Laere1, Matty A de Wit1 and Niek S Klazinga2

Background: To improve homelessness prevention practice, we met with recently homeless adults, to explore their pathways into homelessness, problems and service use, before and after becoming homeless.

Methods: Recently homeless adults (last housing lost up to two years ago and legally staying in the Netherlands) were sampled in the streets, day centres and overnight shelters in Amsterdam. In April and May 2004, students conducted interviews and collected data on demographics, self-reported pathways into homelessness, social and medical problems, and service use, before and after becoming homeless.

Results: Among 120 recently homeless adults, (male 88%, Dutch 50%, average age 38 years, mean duration of homelessness 23 weeks), the main reported pathways into homelessness were evictions 38%, relationship problems 35%, prison 6% and other reasons 22%. Compared to the rest of the group, the eviction group was slightly older (average age 39.6 versus 35.5 years; p = 0.08), belonged more often to a migrant group (p = 0.025), and reported more living single (p < 0.001), more financial debts (p = 0.009), more alcohol problems (p = 0.048) and more contacts with debt control services (p = 0.009). The relationship group reported more domestic conflicts (p < 0.001) and tended to report more drug (illicite) problems. Before homelessness, in the total group, contacts with any social service were 38% and with any medical service 27%. Despite these contacts, they did not keep their house. During homelessness only contacts with social work and benefit agencies increased, contacts with medical services remained low.

Conclusion: The recently homeless fit the overall profile of the homeless population in Amsterdam: single (Dutch) men, around 40 years, with a mix of financial debts, addiction, mental and/or physical health problems. Contacts with services were fragmented and did not prevent homelessness. For homelessness prevention, systematic and outreach social medical care before and during homelessness should be provided.

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Methods
Study population
Included in our study were recently homeless adults defined as persons, 18 years and older, who lost their house for the first time during the last two years (between April 2002 and April 2004) and who were legally staying in the Netherlands. The choice of the length of homeless-ness up to two years was intended to enhance the reliability of the information reported and to overcome problems of memory. To find locations to meet recently homeless adults, data on rough sleepers and visitors of day centres in Amsterdam were studied [11,12]. Staff at one specific benefits provider for the homeless, at five day centres and at two emergency shelters were interviewed for information on their homeless visitors. After combining oral and written information, we decided to reach as many recently homeless adults as possible at locations recently homeless people tend to visit and where they could be approached for an interview. These were three gathering places for out-reach soup distribution and popular street hangouts, one specific agency for benefits provision for the homeless, four emergency shelters and seven day centres with each over 450 visits a week. To keep a homogenous sample, shelters for adolescents and families were not included. The study design did not need a process of ethical approval according to the Dutch Act on Medical Research.

In April and May 2004, interviews were conducted by ten undergraduate social science students. The students were familiar with approaching and interviewing homeless people. Interviewers underwent training sessions on the process and quality of data registration, and all questionnaires were reviewed after the interviews. For every completed questionnaire students received twenty euros. Interviews lasted on average 45 minutes.

During a total of 40 occasions, at fourteen locations, between 4 and 38 homeless people were present at any moment (on average 25), of whom 125 homeless adults were eligible and participated in the study, by giving written consent for an interview and anonymous data analysis. Specific encouragement or incentives for homeless people to participate were not applied. None of the respondents were too intoxicated or too confused to be able to participate. During the interviews, on a separate list, the questionnaires were anonymised and codes and dates of birth of participants were recorded to exclude double counting. Two persons were interviewed twice and were excluded from analysis. Three questionnaires were excluded as the respondents were homeless for longer than two years. In total 120 questionnaires were included in the analysis.

Collected data
Questionnaires for this study consisted of author-generated items. In consultation with city sociologists at the
University of Amsterdam Department of Social Sciences, items of questionnaires used in follow up studies on rough sleepers were added [11]. Data were collected in a variety of areas addressing who, where, when and why questions following the process and antecedents of becoming homeless, self reported social and medical problems and contacts with social and medical services, before and after becoming homeless. Type of underlying problems chosen were based on the authors experience with providing outreach care to homeless people in Amsterdam over the last decade [13].

To find out pathways into homelessness, respondents were asked about their last housing condition and included composition of the household, type of housing, type of lessor, rent agreement and rent/income ratio. Demographics included sex, age and country of birth. For information on the social and medical problems before and after becoming homeless the following items were asked. Social problems were domestic conflicts (with household members, neighbours, landlords and/or services) and financial problems. For the latter data on financial debts, reasons for bankruptcy and debts for type of creditors were collected. Medical problems included addiction to alcohol, drugs and gambling, mental health problems and physical health problems. Alcohol use could be scored as normal, excessive or dependency, 57% reported immediate homelessness, and 86% reported being on the streets within three months. The median length of homelessness was six months (23 weeks).

### Results

#### Housing setting and pathways into homelessness

In table 1 self reported housing setting and pathways into homelessness are shown. Before homelessness two thirds were living in a rented house. Thirteen respondents, out of the 120, mentioned never having lived independently; they had always been staying with family or friends. More than half had rented a house of a housing association (53%) and one third had rented privately (32%). The median rent price was 268 euros (range 0 – 1,000 euros), and the median gross salary was 809 euros (range 0 – 4,500 euros). Forty respondents had a rent/income ratio up to 30%, 33 up to 60%, 7 more than 60% and for 40 respondents this was not known.

#### Type of housing (n = 115)

<table>
<thead>
<tr>
<th>Type of housing</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>own house</td>
<td>75</td>
<td>65</td>
</tr>
<tr>
<td>stay with family, friends or other</td>
<td>27</td>
<td>23</td>
</tr>
<tr>
<td>prison</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>abroad</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>hospital</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>hostel</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Type of tenant (n = 85)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>private rent</td>
<td>45</td>
<td>53</td>
</tr>
<tr>
<td>squatting</td>
<td>27</td>
<td>32</td>
</tr>
<tr>
<td>other</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>other</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Pathways, how last housing lost? (n = 109)

<table>
<thead>
<tr>
<th>Pathways, how last housing lost? (n = 109)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>eviction</td>
<td>41</td>
<td>38</td>
</tr>
<tr>
<td>relationship problems (left or sent away)</td>
<td>38</td>
<td>35</td>
</tr>
<tr>
<td>financial problems</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>other reasons</td>
<td>24</td>
<td>22</td>
</tr>
</tbody>
</table>

#### Table 1: Self reported setting and pathways into homelessness

#### Table 2: Demographics and household composition related to pathways into homelessness

<table>
<thead>
<tr>
<th>Demographics</th>
<th>total (n = 120)</th>
<th>eviction (n = 43)</th>
<th>relationship (n = 38)</th>
<th>other (n = 38)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–29</td>
<td>39</td>
<td>33</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>30–44</td>
<td>30</td>
<td>25</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>45–49</td>
<td>26</td>
<td>22</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>50–59</td>
<td>14</td>
<td>12</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>60+</td>
<td>9</td>
<td>8</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Country of birth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>58</td>
<td>48</td>
<td>15</td>
<td>38</td>
</tr>
<tr>
<td>Suriname/Kittie/Morocco</td>
<td>24</td>
<td>20</td>
<td>13</td>
<td>32</td>
</tr>
<tr>
<td>Other</td>
<td>37</td>
<td>31</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>Composition of household</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Study assessments and analysis

Statistical analyses were performed using SPSS 14.0 and were mainly descriptive. The pathways into homelessness are described. Demographics, problems and service use are described and compared between the three main identified pathways into homelessness. Differences in the characteristics and underlying problems among homeless people following the different pathways are compared using chi-square and Fisher-exact tests for categorical variables and Wilcoxon median test for continuous variables.

To identify independent factors associated with the spec- ific pathways, logistic regression analyses were performed using backwards selection based on the loglikelihood ratio. In addition, logistic regression analyses were per- formed to study factors independently associated with the main problems identified in each pathway.
Regarding pathways and medical problems, the eviction group reported more contacts with debt control services than the relationship group (33/41 = 81% versus 18/38 = 47%; p = 0.009, not in table). Despite these contacts they did not keep their house. Regarding pathways and medical problems no significant differences in service use between pathway groups were found. Before homelessness, of 86 respondents who reported a medical problem, 47 did look for some sort of medical service and 39 did not feel the need. Reasons mentioned for not perceiving the need for medical support were e.g. “I don’t need help”, “I solve my own problems”, “I don’t have an addiction problem”, “I don’t see how they can help me”, “I don’t know where to go”, “they ask too many questions” and “services are slow”.

How recently homeless people envision better services and their biggest dream

We asked recently homeless people about their ideas how to improve assistance. In general, the majority of respondents mentioned that they wished that the city provides a one stop comprehensive service for social and medical problems, active assistance for red tape and financial management, and fast tracking towards (guided) housing and jobs. Respondents said e.g., “you need to be verbally strong to succeed at services”, “social and financial support should be much faster”, “I wish clear information where to go for what problem”, “services should work together”. Other answers were: “if I had help before I became homeless…”, “I try to be nice, but they are rude”, and “they should offer help for normal homeless people”.

What is your biggest dream? Almost all wanted a house, a normal life with family contacts and/or a job. Respondents said e.g. “I hope they give me benefits in the future”, “to become father”, “a safe place”, “a house within a few months”, and “to celebrate Christmas with friends at home”. Other answers were: “that they do more for homeless people who do not take drugs”, “I do not have dreams, I gave up hope a long time ago” and one man was dreaming of “a shower and clean clothes”.

Discussion

For the homelessness prevention practice, we aimed to discover the sources of homelessness; defined as the factual pathway that leads to an (official) forced or voluntary displacement from one home or facility. Therefore, we explored the pathways people took into homelessness and compared the characteristics, problems and service use per pathway taken. In our approach, we focus on the detection of underlying problems, that services should respond to, rather than exploring the reasons why the underlying problems exist. Knowledge of the characteristics and problems of people who follow different pathways into homelessness should contribute to timely detection of vulnerable people who might step into homelessness.

We identified 120 recently homeless people in Amsterdam to explore their pathways into homelessness, problems and service use, before and after becoming homeless. The main pathways into homelessness reported were evictions from one home (38%), relationship problems that lead to leaving a home or being sent away by household members (35%), leaving prison (6%) and various other reasons (6%). These pathways into homelessness are consistent with those known in the literature [4,10,15,16]. However, the figures in this sample can not be compared with those found by others due to varying settings, definitions and methodology. For comparison, the factual pathways into homelessness, the key causes, underlying contextual factors and triggers need to be disentangled [4,5,9].

Not surprisingly, the characteristics of the recently homeless people in our study show more similarities than differences with those found among the majority of those between 18–29 years and those 60 years and older, and among respondents not born in the Netherlands. Underlying social or medical problems were not significantly associated with domestic conflicts.

Regarding pathways and medical problems, the eviction group reported more extreme alcohol problems than the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.001, n = 38). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048). Drug problems, mainly cocaine use, tended to be more common in the relationship group (p = 0.048).
households at risk of eviction (due to rent arrears and nuisance) have often high financial debts, shelter users and homeless adults visiting outreach medical care facilities in Amsterdam [6,11,17-19]. The profile of the majority of the homeless on the streets is compatible with those in cities abroad [10,20-22].

In all pathway groups almost two thirds reported a combination of social and medical problems. Those who were homeless after eviction did belong to a major migrant group more often, were slightly older, were more often living in a single, had more financial problems and more alcohol problems than the other groups. Those who were homeless due to relationship problems were slightly younger, had more domestic conflicts and tended to report more drug (cannabis use) problems, than the others groups.

Gambling, as a known source of debts and financial difficulties, was reported by 24% among those evicted and 13% among those who had lived with others. In Melbourne, Australia, before homelessness, among 93 older homeless men, gambling was reported by 46% among those who were living alone and 28% among those living with others [4,16]. In Amsterdam, gambling was hardly mentioned by employees of housing associations handling rent arrears and by employees in nuisance control care networks handling nuisance. When asked to report problems among households at risk of eviction [6], service providers should be alert for gambling problems among mostly single men at the brink of homelessness [6].

In all pathway groups almost two thirds reported a combination of social and medical problems, addiction and/or mental and/or physical health problems, for all pathways, the general practitioner, as a gatekeeper for addiction, mental and physical health care services to take responsibility in intrinsically interacts with medical disease, and actively assisting vulnerable citizens with unmet support needs. In all pathway groups, medical care workers should be trained to systematically screen and the evaluation of prevention programs [3-5].

Regarding the three pathways into homelessness of the recently homeless people in our study, we reflect and comment on the existing strategies in Amsterdam.

1) Eviction from one home was the main source of homelessness. Per year more than 1,400 households are being evicted in Amsterdam [6]. To decrease the number of evictions, the existing outreach networks respond to persistent rent arrears and nuisance, as signals to be picked up by housing associations and landlords, to be shared with social services. In response, during a house visit underlining problems, such as gambling and medical problems, and unmet support needs are being explored [6,7,28]. Based on our previous studies on evictions and current findings, we suggest that assistance should explicitly be applied to low income single men, with underlying financial problems, addiction and/or mental and/or physical health problems. As among these high risk men a mix of social and medical problems is to be expected, social and medical workers should be trained to systematically approach and guide the underlying problems to keep these men at home [6,7,25].

2) Relationship problems that lead to leaving a house was the second source of homelessness. Prevention strategies might be difficult to design. However, underlining problems and service use are also prevalent among this high-risk group. Alertness of social and medical services could be the way to identify this high risk group for proactive activities. Services should know their clients and should (be trained to) be sensitive for signals of vulnerability. These signals should be identified with a few additional questions related to how a person is coping daily, living, household, income and debts (alcohol, cocaine and gambling), and should actively be shared among disciplines [4,5,21]. In health care settings medical professionals, and the general practitioner in particular, do have the opportunity and responsibility to diagnose social disease (such as poverty and imminent homelessness), that intrinsically interacts with medical disease, and actively ask for social assistance in response [5,28].

3) Leaving prison was the third source of homelessness, among various other reasons. In the Netherlands, when people stay in prison for a certain period of time welfare benefits are terminated. Data on the number of people that did pay rent off welfare benefits before they went to prison are not being collected. Nor data on the number of people that lost their house during their time in prison because nobody assisted in paying the rent at home, and, as a consequence, became homeless after leaving prison. However, in Amsterdam, vulnerable homeless and multiple offenders are actively being followed up and assisted to anticipate housing, income and care after prison [28].

Furthermore, to prevent long term homelessness, new arrivals in the homeless circuit, at places the homeless tend to gather, are actively being identified and fast tracked along social and medical services, as the motivation to turn their situation around is expected to be a crucial entry point towards rehabilitation. For this strategy, social and shelter services aim to converge their intake procedures in a central shelter unit, where (recently) homeless people can undergo a social medical assessment and be guided towards program oriented housing and care. Among the services for the poor and underserved, the GGD Municipal Public Health Service is operating as the central field director to monitor strategies to further prevent and reduce homelessness in Amsterdam [28]. New evaluations should demonstrate whether the present situation has improved compared to our findings in 2004.

Conclusion

Among recently homeless adults in Amsterdam, the main pathways into homelessness reported were evictions, relationship problems and leaving prison. In all pathways, the recently homeless fit the profile of the majority of the total homeless population in Amsterdam: single men, around 40 years, with a mix of debts, domestic conflicts, medical care problems, addiction and/or mental and/or physical health problems. Regarding service use before becoming homeless, and regardless the pathway taken, more than half reported contacts with social and/or medical services that did not prevent homelessness. During homelessness only contacts with social work and benefit agencies increased, contacts with medical services remained low. For homelessness prevention, systematic and integrated social medical care before and during homelessness should be provided.

Competing interests

The authors declare they have no competing interests. No external funding was provided for this research.

Authors’ contributions

All authors contributed to the conceptualisation of the paper. IV contributed to the study design and implementation, and wrote the manuscript. MvdW contributed to the study design and implementation, analysed the data and
assisted in writing the manuscript. NK contributed to the manuscript design and assisted in writing the manuscript.

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Long term homeless adults
Outreach care to homeless adults in Amsterdam: characteristics, social medical problems and mortality between 1997-2008.

Igor van Laere, Matty de Wit, Niek Klazinga
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Abstract

Background
Adequate support for homeless populations includes outreach primary care. This is a descriptive analysis of the characteristics, diagnoses and mortality of homeless patients at the GGD Outreach Dr.Valckenier Practice in Amsterdam, over the last decade.

Methods
Data of three cross-sectional studies were used of in total 625 homeless patients who consulted a GGD outreach doctor at different sites and episodes: Group A (n=364) at an emergency shelter and day centre, 1997-1999; group B (n=124) at a day centre, an emergency shelter and three residence shelters, September - December 2000; and group C (n=137) at a social service centre, February - May 2005. In the three groups, personal characteristics, status of homelessness and medical problems, and only in group A, reasons for encounter and mortality, were collected.

Results
In all groups, most were male (82-88%), in the 30-50 age group (39-66%) and of Dutch (37-68%) and Surinamese/Antillean (12-28%) origin. The main pathways into homelessness were relationship problems (28-31%), evictions (21-37%) and leaving prison (8-23%). The mean duration of homelessness was 4, 7 and 2 years, in group A, B and C, respectively. Chronic morbidity: alcohol addiction 18-26% and drug addiction 29-37%; mental health problems 21-61% and physical conditions 51-76%. In group A, tri-morbidity (a combination of addictions, mental health problems and chronic physical disorders) was reported for 31%, and the main reasons for encounter were skin problems in 26% and respiratory infections in 21%. After a decade of observation, in group A, 74 homeless patients (20%) had died, 60 men, at an average age of 55 years (range 24-86 years). The overall Standard Mortality Ratio was 6.6, for males 5.9 and for females 13.3, compared to the overall mortality of the Amsterdam population. Multivariate analysis showed a significant increased risk of death for those with HIV, hazard ratio 6.3 (95%CI: 2.58-15.42), alcohol addiction, hazard ratio 3.5 (95%CI: 1.84-6.62), and chronic pulmonary disorders, hazard ratio 2.0 (95%CI: 1.18-3.48).

Conclusion
In Amsterdam, homeless patients were in poor health. This is reflected by one third burdened with tri-morbidity, and a high premature death rate. In outreach practice, predictors of early death should be acknowledged and targeted social medical care provided.

Background
In Amsterdam, the Netherlands, over the last three decades, an estimated stable number of 2,500-3,000 homeless people has been reported. Among this subpopulation, of mainly drug users, alcoholics and psychiatric patients, a poor physical condition is observed. Often reported are severe self neglect, pulmonary infections and alcohol complications, for which problems they seem to seek help in an advanced stage of illness. In response to their unmet support needs the Municipal Public Health Service (in Dutch: Geneeskundige en Gezondheidsdienst = GGD) introduced outreach care activities in 1987.

In the beginning these activities took place in the streets, under bridges and nomad areas. In 1988 primary healthcare drop-in hours were on offer in two emergency shelters. Through the years, more centres for the homeless have been visited by GGD outreach doctors and case workers. In 1992, on request of the Amsterdam Association of General Practitioners (AHV) and a health insurance company (AGIS), a formal practice – the GGD Outreach Dr.Valckenier Practice for homeless people - was established. The practice is named after the Valckenierstreet in Amsterdam, the location of the GGD headquarters. At a social service centre (in Dutch: Dienst Werk en Inkomsten = DWI), homeless people can receive a postal address and welfare payments of which preemies for a health insurance are paid off automatically. Subsequently, homeless people can registrar at the GGD Outreach Dr.Valckenier Practice. Today over 1,000 patients are registered.

The years that followed were used for GGD outreach physicians and case workers to pioneer and getting to know the homeless population and the partners in the care network in Amsterdam. In April 1997 organisational changes within the GGD brought a new team of outreach workers, called the Ambulatory Medical Team (AMT). Over the last years, at sixteen outreach locations (day centres, social service centres, emergency shelters and general shelters) around 750 homeless patients have been consulting the GGD outreach physicians during 3,500 contacts per year. Sources of referral are in most cases homeless people themselves, social workers and shelter staff, and, to a lesser extent, medical workers in the mainstream primary and secondary care sector. Although most referrals occur during the day, for advice and/or consultation the GGD outreach health workers can be contacted around the clock, all days of the year. In Amsterdam, apart from the outreach primary care locations, for health related matters homeless people can consult a doctor at five GGD out-patient (community medical) clinics, a volunteer primary care facility in the red-light district (Kruispost), nearly 400 general practitioners and six A&E departments at general hospitals.

From day one, GGD outreach physician and first author I.v., participated in the Ambulatory Medical Team, and on the job he has been collecting data on characteristics, social medical problems and care needs of homeless patients. In this paper collected data, of which most were published in Dutch medical journals over the last decade, are aggregated and presented.

Objective of this study
In the literature little information of homeless people and both morbidity and mortality in outreach primary healthcare settings is available. To contribute to the knowledge, we aimed to describe 1) the personal characteristics of three subgroups of homeless patients that consulted the GGD Outreach Dr.Valckenier Practice in the time periods 1997-1999, 2000 and 2005, 2) the status of homelessness in the three subgroups, 3) the underlying medical problems in the three subgroups and reasons for encounter in the first subgroup; and 4) mortality, ten years after the first encounter between 1997-1999, in the first subgroup.
Methods

Three descriptive cross-sectional studies among homeless patients, who consulted a GGD outreach physician between 1997 and 2005, were used. These studies reflect the data collected of homeless patients who consulted a GGD outreach doctor at their own initiative at different sites during different episodes. The aim was not to compare the study groups, episodes or outreach locations. We used data of in total 625 homeless patients in the following three groups. Group A consists of 364 homeless patients who consulted a GGD doctor at a day centre and an emergency shelter between April 1997 and October 1999. For this study an author generated questionnaire was used. The socio-demographics, the status of homelessness, reasons for encounter, and chronic medical conditions, were recorded in a standardized manner. In November 2008, the GGD client records and the Amsterdam Population Register were used to determine the mortality rate among the 364 homeless patients a decade later. Group B consists of 124 homeless patients who consulted a GGD doctor at a day centre, an emergency shelter and three residence shelters in the period September – December 2000. Patients underwent a structured interview and a superficial dental examination. Demographics, status of homelessness, substance use, lifetime admittance in a mental health clinic, use of dental services and dental health characteristics were recorded. Group C consists of 137 homeless visitors applying for benefits at a social service centre, where they consulted a GGD doctor during February – May 2005. Demographics, status of homelessness and medical problems – addiction, mental and physical health problems present or absent – were collected. This study aimed to explore advice on housing and social medical care needs.

Study assessments and analysis

Statistical analyses were performed using SPSS 17.0 and were mainly descriptive. The mortality rate was calculated from the date of first encounter until the date of death, divided by the person years from the first encounter to the end of the observation period, until death or until leaving Amsterdam. The study period was from April 1997 up till November 2008. The Standard Mortality Ratio (SMR) was calculated by comparing the mortality among the homeless patients with the mortality in a comparable group (5-year age groups, gender, ethnic background) in the general Amsterdam population. Survival analysis was performed to determine factors independently associated with higher mortality rates.

Results

Personal characteristics

In table 1 the demographics of the three groups visiting the GGD Outreach Dr. Valckenier Practice for homeless people between 1997-2005 are shown. The vast majority were male (82-88%) and in the 30-39 and 40-49 age groups (59-66%). Two thirds were of Dutch origin in group A and B (63-68%), in group C one third was born in the Netherlands (37%). A minority of the visitors in group A and B were illegal immigrants. In group A and B most had a health insurance (73-86%), and group C was applying for benefits of which preemies for a health insurance can be paid off, thus none had a health insurance at the time. In general, homeless patients without a health insurance are welcome to visit the GGD Outreach Dr. Valckenier Practice as well, and if entitled, they can be guided towards social assistance for a postal address and benefits. Among those with a health insurance in group A, half of them were registered at their own general practitioner; who they apparently did not visit for probably practical reasons (appointment, distance to practice etc). Regarding education, in group A, 17% only went to primary school, 38% went to high school for one or two years and disrupted their education and 40% had a high school diploma. Forty percent of group A had one or more children, most had lost contact with them.

Table 1 Personal characteristics of homeless patients in Amsterdam

<table>
<thead>
<tr>
<th>group</th>
<th>group A (n=364)</th>
<th>group B (n=124)</th>
<th>group C (n=137)</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td>306 (84)</td>
<td>102 (82)</td>
<td>120 (88)</td>
</tr>
<tr>
<td>female</td>
<td>58 (16)</td>
<td>22 (18)</td>
<td>17 (12)</td>
</tr>
<tr>
<td>Age (range) in years</td>
<td>43 (18-86)</td>
<td>45 (25-84)</td>
<td>38 (20-61)</td>
</tr>
<tr>
<td>18-29</td>
<td>48 (14)</td>
<td>8 (7)</td>
<td>30 (22)</td>
</tr>
<tr>
<td>30-39</td>
<td>118 (32)</td>
<td>36 (29)</td>
<td>49 (36)</td>
</tr>
<tr>
<td>40-49</td>
<td>111 (30)</td>
<td>37 (30)</td>
<td>40 (29)</td>
</tr>
<tr>
<td>50-59</td>
<td>54 (15)</td>
<td>27 (22)</td>
<td>17 (12)</td>
</tr>
<tr>
<td>60+</td>
<td>33 (9)</td>
<td>16 (13)</td>
<td>1 (0.7)</td>
</tr>
<tr>
<td>Country of birth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>246 (68)</td>
<td>78 (63)</td>
<td>51 (37)</td>
</tr>
<tr>
<td>Surinam/Antilles</td>
<td>45 (12)</td>
<td>27 (22)</td>
<td>38 (28)</td>
</tr>
<tr>
<td>other</td>
<td>73 (21)</td>
<td>19 (15)</td>
<td>48 (35)</td>
</tr>
<tr>
<td>Illegal immigrant</td>
<td>28 (8)</td>
<td>6 (5)</td>
<td>*</td>
</tr>
<tr>
<td>Health insurance</td>
<td>276 (73)</td>
<td>107 (86)</td>
<td>**</td>
</tr>
</tbody>
</table>

* Homeless patients visiting the GGD Outreach Dr. Valckenier Practice 1997-2005
* Illegal immigrants were excluded from application for benefits
**Applicants for benefits did not have a health insurance
Status of homelessness

In Table 2 the status of homelessness is outlined. The major pathways into homelessness, in group A and C, (for group B this item was not included in the questionnaire), were relational problems and financial debts / evictions. In group A, for an unknown proportion, financial debts might have resulted in evictions as a factual pathway into homelessness. This pathway was specifically asked for in group C, and in this group 37% reported being homeless after an eviction. Other pathways were housing related nuisance in group A (12%) and after leaving prison in group C (23%); for an unknown number of pre-prison renters no rents are being paid during incarceration, with an eviction and loss of personal belongings as a likely result, to be discovered by the individual once time is done.

The mean duration of homelessness in the three groups varied between 2 and 7 years, most probably due to differences in the sampling sites. In group A, mainly rough sleepers and emergency shelters users (81%), almost half (49%) was homeless longer than 5 years. In group B, including one quarter residence shelter users, almost half (49%) was homeless up to two years; the range was between a few days up till 46 years. In group C, nearly half (49%) was homeless up to six months, at the moment of applying for benefits at the social agency.

### Table 2 Status of homelessness of homeless patients in Amsterdam

<table>
<thead>
<tr>
<th>Pathway into homelessness</th>
<th>group A (n=364)</th>
<th>group B (n=124)</th>
<th>group C (n=137)</th>
</tr>
</thead>
<tbody>
<tr>
<td>relationship problems</td>
<td>113 (31)</td>
<td>39 (28)</td>
<td></td>
</tr>
<tr>
<td>financial debts / evictions</td>
<td>77 (21)</td>
<td>51 (37)</td>
<td></td>
</tr>
<tr>
<td>housing related nuisance</td>
<td>44 (12)</td>
<td>1 (0.7)</td>
<td></td>
</tr>
<tr>
<td>after prison</td>
<td>30 (8)</td>
<td>32 (23)</td>
<td></td>
</tr>
<tr>
<td>after hospital admission</td>
<td>10 (3)</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>other</td>
<td>75 (21)</td>
<td>13 (9)</td>
<td></td>
</tr>
<tr>
<td>unknown</td>
<td>15 (4)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Duration of homelessness</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean duration in years</td>
<td>4.1</td>
<td>6.9</td>
<td>2.0</td>
</tr>
<tr>
<td>0-6 months</td>
<td>118 (32)</td>
<td>18 (15)</td>
<td>64 (47)</td>
</tr>
<tr>
<td>7 months - 2 years</td>
<td>63 (17)</td>
<td>14 (11)</td>
<td>23 (17)</td>
</tr>
<tr>
<td>2-5 years</td>
<td>69 (19)</td>
<td>31 (25)</td>
<td>31 (23)</td>
</tr>
<tr>
<td>&gt; 5 years</td>
<td>93 (26)</td>
<td>61 (49)</td>
<td>18 (13)</td>
</tr>
<tr>
<td>mixing</td>
<td>21 (6)</td>
<td>0 (0)</td>
<td>1 (0.7)</td>
</tr>
<tr>
<td>Place slept previous night</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rough sleeping</td>
<td>130 (36)</td>
<td>24 (9)</td>
<td></td>
</tr>
<tr>
<td>emergency shelter</td>
<td>162 (45)</td>
<td>46 (37)</td>
<td></td>
</tr>
<tr>
<td>residence shelter</td>
<td>0 (0)</td>
<td>34 (27)</td>
<td></td>
</tr>
<tr>
<td>temporary stay family/friends</td>
<td>64 (18)</td>
<td>20 (16)</td>
<td></td>
</tr>
</tbody>
</table>

* Homeless patients visiting the GGD Outreach Dr.Valckenier Practice: 1997-2005
NA=not available, item was not included in the study questionnaire.

Medical problems and reasons for encounter

Chronic medical problems – addiction, mental and physical health problems - are outlined in Table 3. For group B and C not all data were available due to varying aims of the studies. In all groups, one quarter reported alcohol dependency and one third drug dependency. In group A, among the 105 drug users, 14% was actually injecting heroine and/or cocaine, and 49% received methadone treatment at a GGD drug clinic, as opposed to none of the 92 alcoholics.

During outreach practice the experience with the homeless alcoholics and the accumulation of medical problems, resulting in severe social medical decay and premature death, is reflected in two case studies presented in Box 1.

**Box 1: The homeless alcoholic: who cares?**

Two homeless alcoholics, males aged 58 and 40 years, are presented with multiple health problems. Sleeping outdoors, excessive drinking and incompetence refrain them from seeking proper assistance. The patients were assessed at primary care services provided in shelters in Amsterdam, at police stations and in the streets. They were admitted in shelter-based convalescence care facilities, alcohol clinics and general hospitals on many occasions. Despite substantial individual health damage, community costs and extreme care consumption, coercive treatment was not performed to prevent death of the first patient and to stabilise the situation of the second. It is stated that a specific group as homeless alcoholics can hardly be treated unless during moments of crisis. Coercive treatment should be applicable in order to stabilise these patients and to prevent early mortality among homeless people with comparable health problems. Outreach primary care services for homeless people should actively cooperate with addiction and mental health services in providing care for the homeless alcoholic. 13

Mental health problems were highly prevalent, among almost two thirds in group A and one in five in group C. Of one quarter in group B a life time mental health admission was known. Among the chronic physical health problems reported, often presented were skin disorders 41% (chronic ulcers and skin defects, eczema, psoriasis), pulmonary conditions 23% (chronic asthma, COPD, use of inhalers) and cardiovascular disease 14% (coronary disease, rhythm disorders, hypertension, use of cardiac medication). Furthermore, underweight (BMI 18.5 kg/m2 and lower) was noted among 13 of 35 females (37%) and 28 out of 254 males (11%). For hypertension (RR > 140/90 mmHg for those under 60 years and RR > 160/90 mmHg for those 60 + years), the figures were 2/28 (7%) and 39/210 (19%) respectively.
Reasons for encounter of homeless patients visiting the GGD Outreach Dr. Valckenier Practice and patients consulting a general practitioner (GP)

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>group A (n=364)</th>
<th>GP (standardised)**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>A</td>
<td>general</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>blood</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>D</td>
<td>digestive</td>
<td>33</td>
<td>9</td>
</tr>
<tr>
<td>F</td>
<td>eye</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>H</td>
<td>ear</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>K</td>
<td>circulatory</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>L</td>
<td>locomotion</td>
<td>44</td>
<td>12</td>
</tr>
<tr>
<td>N</td>
<td>neurological</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>P</td>
<td>psychological</td>
<td>33</td>
<td>9</td>
</tr>
<tr>
<td>R</td>
<td>respiratory</td>
<td>77</td>
<td>21</td>
</tr>
<tr>
<td>S</td>
<td>skin</td>
<td>95</td>
<td>26</td>
</tr>
<tr>
<td>T</td>
<td>endocrine</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>U</td>
<td>urological</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Y</td>
<td>male genital</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Z</td>
<td>social</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>total</td>
<td></td>
<td>364</td>
<td>100</td>
</tr>
</tbody>
</table>

* Homeless patients visiting the GGD Outreach Dr. Valckenier Practice 1997-2005.

** Sex and age matched with patients visiting 50 GP practices in the Netherlands between 1985-1995.

The lifestyle of homeless people often implies lack of hygiene resulting in neglected feet pathology. The Municipal Public Health department for the homeless (GGD) was visited by a man aged 43 with drug addiction and schizophrenia who suffered from severe immersion foot complicated by cellulitis of the right lower leg, which had not been diagnosed adequately during a previous visit to an emergency department. Shelter-based convalescence care admission and adequate antibiotic treatment improved the condition in a few days. It is stated that ‘maladjusted’ presentation of homeless people may lead to hasty, inadequate judgement and treatment by health care workers. These socially handicapped patients need proper physical examination and efforts to realise shelter care and indicated treatment.

Despite a high prevalence of addiction (50-60 times higher than the GP patients) only 1% presented an addiction problem as a reason for encounter. Medication was requested by 9%, of whom 63% preferred tranquillisers. Medication prescribed by other physicians was stated by 46% (21% tranquillisers, 14% methadone). Furthermore, the multiple conditions in one in six visitors (n=54, 91% male) required a referral to a shelter-based convalescence care facility to recuperate. Five homeless alcoholics presented life threatening conditions which had not been diagnosed adequately during a previous visit to an emergency department. Shelter-based convalescence care admission and adequate antibiotic treatment improved the condition in a few days.

The homeless patients presented skin problems in 26% (traumatic injury, infected wounds, immersion foot, scabies, lice, abscess, cellulites and erysipelas) and respiratory infections in 21% (sinusitis, acute bronchitis and pneumonia), more often than a GP population. Among the skin problems, immersion foot was often presented, a condition in demand for shelter-based convalescence care. A case study of a patient with immersion foot is presented in Box 2.

### Table 3 Chronic medical problems of homeless patients in Amsterdam *

<table>
<thead>
<tr>
<th>group</th>
<th>sample episode</th>
<th>group A (n=364)</th>
<th>group B (n=124)</th>
<th>group C (n=137)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n %</td>
<td>n %</td>
<td>n %</td>
<td>n %</td>
<td></td>
</tr>
<tr>
<td>Addiction total</td>
<td>197 54</td>
<td>78 63</td>
<td>62 45</td>
<td></td>
</tr>
<tr>
<td>none</td>
<td>167 46</td>
<td>46 37</td>
<td>75 55</td>
<td></td>
</tr>
<tr>
<td>alcohol</td>
<td>92 25</td>
<td>32 26</td>
<td>24 18</td>
<td></td>
</tr>
<tr>
<td>drugs</td>
<td>105 29</td>
<td>46 37</td>
<td>48 35</td>
<td></td>
</tr>
<tr>
<td>heroin</td>
<td>74 20</td>
<td>-</td>
<td>20 15</td>
<td></td>
</tr>
<tr>
<td>cocaine</td>
<td>85 23</td>
<td>-</td>
<td>42 31</td>
<td></td>
</tr>
<tr>
<td>Mental Health total</td>
<td>225 62</td>
<td>-</td>
<td>29 21</td>
<td></td>
</tr>
<tr>
<td>depressive episode ever</td>
<td>113 31</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>psychotic episode ever</td>
<td>103 28</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Mental admission ever</td>
<td>68 19</td>
<td>32 26</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Physical Health chronic total</td>
<td>275 76</td>
<td>-</td>
<td>70 51</td>
<td></td>
</tr>
<tr>
<td>skin disorder</td>
<td>148 41</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>asthma / COPD</td>
<td>85 23</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>heart disease / hypertension</td>
<td>50 14</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>gastro intestinal (excl liver)</td>
<td>41 11</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>hepatitis B and/or C</td>
<td>31 9</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>alcohol hepatitis / cirrhosis</td>
<td>28 8</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>epilepsy</td>
<td>26 7</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>HIV</td>
<td>19 5</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>tuberculosis ever</td>
<td>18 5</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>diabetes</td>
<td>12 3</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Medical problems</td>
<td>135 37</td>
<td>23 19</td>
<td>17 12</td>
<td></td>
</tr>
<tr>
<td>addiction and mental</td>
<td>161 44</td>
<td>-</td>
<td>36 26</td>
<td></td>
</tr>
<tr>
<td>mental and physical</td>
<td>174 48</td>
<td>-</td>
<td>17 12</td>
<td></td>
</tr>
<tr>
<td>addiction, mental and physical</td>
<td>111 31</td>
<td>-</td>
<td>9 7</td>
<td></td>
</tr>
</tbody>
</table>

* Homeless patients visiting the GGD Outreach Dr. Valckenier Practice 1997-2005.
Dental conditions. Although the homeless patients showed a poor dental condition, only a few presented dental complaints. Specific data were collected to get insight in the dental condition and dentist visits (group B). In this study (n=124), teeth brushing less than once a day reported 22% and 31% did not brush at all. Tooth decay during the previous 3 months reported 29%, of whom one fifth visited a dentist (n=7). The homeless patients visited a dentist the previous year in 26% versus 77% of the general Dutch population. Of the homeless drug users 40% did visit a dentist the previous year versus 17% of the homeless alcoholics and non users (x²(7,9; df=1; p=0.005). Superficial dental examination revealed an unhealthy dental status in 86% and unhealthy periodontal tissue in 46%. One or more missing teeth were seen in 91%, more in street and emergency dwellers than in residence shelter dwellers (P<0.05), and decayed teeth in 47%. Edentulous were 29% versus 15% in the general Dutch population. Thirteen edentulous persons did not wear their dentures because they were stolen, broken or did not fit anymore. 18

Mortality
Between 1997-2008, in group A, 74 homeless patients had died (20%), see table 5. Sixty persons were male (81%), and the average age of death was 55 years (median age 53 years; range 24-86 years). The average age of death of fourteen females was also 55 years (median age 54 years; range 41-82 years). For analysis, mortality data of the period 1997-2007 were available of the general Amsterdam population. In this episode 72 home- less patients (58 males) had died. The overall Standard Mortality Rate (SMR) in our study population was 6.6 (95%CI:5.2-8.3) 5.9 for males (95%CI:4.5-7.6) and 13.3 for females (95%CI:7.9-22.4). For the 18-34 age group the SMR was 18.3 (95%CI: 9.5-35.2), for the 35-54 group 8.8 (95%CI: 6.4-12.1) and for the 55+ group 4.2 (95%CI: 5.2-8.3). Multivariate Cox regression analysis showed a significant increased risk of death for individuals born elsewhere (P<0.05), and decayed teeth in 47%. Edentulous were 29% versus 15% in the general Dutch population. Thirteen edentulous persons did not wear their dentures because they were stolen, broken or did not fit anymore. 18

### Table 5: Hazard ratios related to characteristics and medical problems among homeless patients who died in Amsterdam between 1997-2008.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Deaths (n=74)</th>
<th>Univariate analyses</th>
<th>Multivariate analyses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>hazard ratio</td>
</tr>
<tr>
<td>Male</td>
<td>60</td>
<td>18.6</td>
<td>0.39</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>33.3</td>
<td>1.00</td>
</tr>
<tr>
<td>&lt;50 years</td>
<td>37</td>
<td>13.4</td>
<td>1.00</td>
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<tr>
<td>50+ years</td>
<td>37</td>
<td>42.5</td>
<td>4.01</td>
</tr>
<tr>
<td>Dutch born</td>
<td>58</td>
<td>23.6</td>
<td>1.00</td>
</tr>
<tr>
<td>Surinam / Antilles born</td>
<td>5</td>
<td>11.1</td>
<td>4.28</td>
</tr>
<tr>
<td>born elsewhere</td>
<td>11</td>
<td>15.1</td>
<td>5.25</td>
</tr>
<tr>
<td>drugs</td>
<td>20</td>
<td>19.0</td>
<td>1.87</td>
</tr>
<tr>
<td>alcohol</td>
<td>38</td>
<td>41.3</td>
<td>5.14</td>
</tr>
<tr>
<td>mental health</td>
<td>54</td>
<td>22.0</td>
<td>1.29</td>
</tr>
<tr>
<td>asthma / copd</td>
<td>37</td>
<td>43.5</td>
<td>4.09</td>
</tr>
<tr>
<td>hepatitis B/C</td>
<td>10</td>
<td>32.3</td>
<td>1.58</td>
</tr>
<tr>
<td>liver cirrhosis</td>
<td>11</td>
<td>39.3</td>
<td>2.47</td>
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<tr>
<td>epilepsy</td>
<td>7</td>
<td>26.9</td>
<td>1.31</td>
</tr>
<tr>
<td>HIV</td>
<td>10</td>
<td>52.6</td>
<td>3.10</td>
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<tr>
<td>diabetes</td>
<td>7</td>
<td>58.3</td>
<td>4.72</td>
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<tr>
<td>chronic skin</td>
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<td>19.6</td>
<td>0.84</td>
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<tr>
<td>gastrointestinal (excl. liver)</td>
<td>9</td>
<td>22.0</td>
<td>1.11</td>
</tr>
<tr>
<td>heart vessel</td>
<td>14</td>
<td>28.0</td>
<td>1.54</td>
</tr>
</tbody>
</table>

* Cohort of 384 homeless patients visiting the GGD Outreach Dr. Valckenier Practice April 1997-Sept 1999.

* Included as continue variable / 0.06 per year

Discussion
The goal of this study was to describe the personal characteristics, status of homelessness, morbidity and mortality among homeless patients visiting the GGD Outreach Dr. Valckenier Practice in Amsterdam, over the last decade. We discuss the results and, as far as possible, compare our data with those in other cities in the Netherlands and abroad.

The strength of this study was that for all subjects basic and simple data were collected, and included the three general groups of medical problems (addiction, mental and physical health problems). Specifically, we used these categories to determine the prevalence of bi- and tri-morbidity to delineate the burden of disease, and to include physical problems, that might be overlooked when the focus is on dual diagnosis (addiction and mental health problems). Limitations are that not for all groups the same data regarding medical problems were collected. However, the results reflect the findings in daily practice as witnessed by the same outreach doctor who has been observing the homeless population, and most of the patients described in this study, for over a decade.
Personal characteristics
The homeless patients were mainly male (85%), in the 30-49 age group (60%) and of Dutch (37-68%) and Surinamese/Antillean (12-28%) origin. These characteristics are comparable with those of homeless people visiting outreach primary healthcare facilities in The Hague, Rotterdam and Utrecht.\textsuperscript{16-18} The demographics of the homeless patients in our study resemble the total homeless population in Amsterdam and Rotterdam, and those in cities abroad.\textsuperscript{2,19,20}

Status of homelessness
In this study, the three major pathways into homelessness were relationship problems 28-31%, financial debts / evictions 21-37% and after leaving prison 8-23%. In group A, mainly long term homeless people, 8% was homeless after leaving prison. Whereas in group C, mainly recently homeless people, 23% was homeless after leaving prison at the moment they were visiting an outreach doctor at a social service centre applying for benefits. Therefore, regarding the prevalence of certain pathways into homelessness, the sampling sites and length of homelessness should be taken into account. Although the pathways are in concordance with those reported in other big cities in the Netherlands, the percentages can not be compared due to different definitions and methodology. Despite these differences, according studies in Amsterdam, Groningen, Nijmegen and Rotterdam, often reported pathways were financial mismanagement (15-40%), evictions (10-32%), relationship problems (27-29%) and after leaving prison (14-15%).\textsuperscript{21-24} The pathways into homelessness reported in the Netherlands are in concordance with those known in the literature abroad.\textsuperscript{25-26}

Chronic medical problems and reasons for encounter
The study groups presented a high prevalence of chronic bi-morbidity (12-48%) and tri-morbidity (7-31%). Half of the homeless patients reported alcohol / drug or drug addictions (alcohol 18-26% and drugs 29-37%), one in five up to almost two thirds a mental health problem (21-61%) and half up to three quarters (51-76%) a chronic physical condition. Moreover, regarding group A, a high need of acute and/or chronic medical care and guidance is reflected by the fact that, following encounter, one in six homeless patients were referred for shelter-based convalescence care.\textsuperscript{8} Between 1988-1995, former GGD doctors who visited the same outreach locations reported a comparable sex and age distribution, less ethic minorities (20%), less drug use (12-15%), and a similar pattern of alcohol, mental and physical conditions among their homeless patients.\textsuperscript{27}

Regarding (tri-)morbidity, homeless patients using outreach primary healthcare facilities in other cities in the Netherlands, as well as homeless populations abroad, show more similarities than differences compared to our homeless patients.\textsuperscript{16-18} In group A, we found 5% with a known HIV infection, 9% with a hepatitis B and/or C infection and 5% with active and/or life time tuberculosis. As for many of our homeless patients serological tests were not performed at the time, probably, our rates are lower than those reported among homeless populations abroad. HIV 6-35%, hepatitis B 17-30%, hepatitis C 12-30%.\textsuperscript{28} As almost all of our homeless patients are periodically screened for tuberculosis, our rate (5%) is comparable with those abroad (1-7%).\textsuperscript{29}

In this study, as well as in The Hague, Rotterdam and Utrecht,\textsuperscript{16-18} the major reasons for encounter were skin infections, pulmonary disorders and physical trauma. Scholars abroad found the same pattern, and stated that malnutrition, substance use, poor sanitation, overcrowding in poorly ventilated dormitory-style rooms, repeated exposures to the extremes of weather and temperature during the daily migration through the streets and parks, and inadequate access to health care and medication, all contribute to these medical conditions.\textsuperscript{28-31}

Mortality
In group A (n=364), 74 homeless patients (20%) had died at an average age of 55 years. After a decade of observation (April 1997-November 2008), the overall SMR was 6.6 for males 5.9 and for females 13.3, and 18.3 for the 18-34 age group. Those with problems related to HIV, alcohol addiction, chronic pulmonary disorders, drug addiction, liver cirrhosis and diabetes showed an increased risk of death. In a previous study among 729 shelter users in Amsterdam, (82% male, average age 48 years, Dutch origin 60%, methadone prescription 25%), an excess mortality ratio of 4.0 was found, after one year of observation.\textsuperscript{32} The mortality rate for shelter users was lower than the rate for outreach care users in the current study, reflecting a bad and worse health condition respectively. In the Netherlands, no mortality data of homeless populations were available to compare these figures.

Mortality studies among urban homeless populations, mainly shelters and/or homeless clinic users, in Australia, Britain, Canada, Denmark, Sweden and the US, with observation periods ranging between 1 up to 10 years, reported a 2-4 fold overall increased risk of death compared to the local general population.\textsuperscript{33-35} Younger homeless women had from 4-31 times the risk of dying when compared to housed women,\textsuperscript{36} and younger homeless women had similar risks of premature death than younger homeless men. Abroad, most were men, and the average age of death was between 42-52 years.\textsuperscript{36-38} Causes of death varied per study, although (un)intentional accidents, homicide, suicide, intoxications, overdose, HIV/AIDS, heart disease, and cancer, were overrepresented.\textsuperscript{35} According the results of a retrospective 5-year study among 6,323 homeless people in Scotland, homelessness itself was an independent risk factor for death for specific causes; the all-cause mortality hazard ratio was 4.4 compared to the local socio-economically deprived non-homeless population.\textsuperscript{37}

The deaths in our sample were older than abroad (average 55 years versus 42-52 years) and the overall SMR was higher (6.6 versus 3-4). The Netherlands is an advanced welfare state, with a large social housing sector (35% of the total stock), housing and welfare benefits, universal health insurance, and numerous arrangements for the lowest income groups.\textsuperscript{38} Those who fall through all safety nets available might be the most difficult to serve in the community. The homeless population in Amsterdam consists mainly of mentally ill who would have been admitted in mental health institutions 20-30 years ago, and long-term opiate users and alcoholics who can not live independently, and who depend on fragmented services.\textsuperscript{39,40} The Amsterdam population of heroin users is aging (average age around 50 years), with a growing burden of disease (heroin and/or cocaine and/or alcohol and/or benzodiazepine dependence, psychotic episodes, depressions, personality disorders, cognitive impairment, severe self neglect, dental conditions, chronic pulmonary conditions, heart disease, HIV, Hepatitis B, Hepatitis C, and cancer), whereas the incidence of HIV and overdose deaths is very low.\textsuperscript{41,42} Furthermore, abroad, most homeless cohorts were shelter/clinic users, whereas 81% of our cohort were rough sleepers and emergency shelter users who might have a worse condition and/or a deviant assistance seeking behaviour than those staying in general shelters. At first encounter one quarter was 50 years and older and the total group had an average duration of homelessness of 4 years. These facts, including one third burdened by tri-morbidity, possibly contributed to a higher mortality rate than among homeless populations described abroad.

In conclusion, homeless patients in Amsterdam, most commonly male, between 30-49 years old and of Dutch and Surinamese/Antillean origin, were in poor health. Over the last decade, community services in Amsterdam were challenged to provide care to those carrying an extreme burden of disease on a pathway towards premature death. In outreach practice, predictors of early death should be acknowledged and targeted outreach social medical care be provided.\textsuperscript{39,40}
Competing interests

The authors declare they have no competing interests. No funding was provided for this research.

Authors’ contributions

IvL contributed to the study design and implementation, collected data and wrote the manuscript. MdW analysed the data and assisted in writing the manuscript. NK contributed to the manuscript design and assisted in writing the manuscript.

Acknowledgements

We thank Dr. Quirinus van Arnhem and Dr. Bart Leewens †, and Ria Hattu, administrative staff, of the GGD Ambulatório Medical Team, and Bert van der Laan and Hugo Salomon, nurses at the Salvation Army shelter in Amsterdam, for additional data collection. We also thank Glenn Brewster, at the GGD Central Methadone Register, for his assistance in providing mortality data, and Marcel Buster, PhD, for epidemiological support.

This article is dedicated to our colleague and dear friend Dr. Bart Leewens (1953-2007), who was a pioneer in out

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Shelter-based convalescence care for homeless adults in Amsterdam: a descriptive study.

Igor van Laere, Matty de Wit, Niek Klazinga
Background
Over the last decades, shelter-based convalescence care programs, (also termed respite, interim, recuperative and intermediate care), increasingly emerged in the western world [1-13]. Programs differ from one another, though many provide room, board, on site 24-hour care, and a range of social and medical services. On average, these programs are small, with a median of 13 beds, and reimbursement depends on patchwork funding [6].

Results:
629 individuals accounted for 889 admissions to the convalescence care facility. 83% were male and 53% were born in the Netherlands. The mean age was 45 years (SD 10 years). The limited body of research in Australia, Canada and the US suggests that these programs are cost-effective, reduce hospital readmissions, and have important social medical support and service-networking benefits for the clients [1-6]. However, it is argued that much remains to be learned about these programs, including their funding sources, their relationships and arrangements with hospitals and other referral sources, and where patients go when they are discharged from these programs [6].

Abstract
Background: Adequate support for homeless populations includes shelter and care to recuperate from illness and/or injury. This is a descriptive analysis of diagnoses and use of shelter-based convalescence in a cohort of homeless adults in Amsterdam.

Methods: Demographics of 8 homeless adults, diagnoses, referral pattern, length of stay, discharge locations, and mortality, were collected by treating physicians during outreach care provision in a shelter-based convalescence care facility in Amsterdam, from January 2001 through October 2007.

Results: 629 individuals accounted for 889 admissions to the convalescence care facility. 83% were male and 53% were born in the Netherlands. The mean age was 45 years (SD 10 years). The primary physical problems were skin disorders (37%), respiratory disorders (33%), digestive disorders (24%) and musculoskeletal disorders (21%). Common chronic conditions included addictions 78%, mental health disorders 20%, HIV/AIDS 11% and liver cirrhosis 5%. Referral sources were self-referred (18%), general hospitals (21%) and drug clinics (27%). The median length of stay was 20 days. After (self)discharge, 63% went back to the previous circumstances, 10% admitted to housing, and 23% went to a medical or nursing setting. By March 2008, one in seven users (n = 83; 13%) were known to have died, the Standard Mortality Ratio was 7.5 (95% CI: 4.1-13.5). Over the years, fewer men were admitted, with significantly more self neglect, personality disorders and cocaine use. Lengths of stay increased significantly during the study period.

Conclusions: Over the last years, the shelter-based convalescence care facility users were mainly homeless single males, around 45 years of age, with chronic problems due to substance use, mental health disorders and a fatal physical condition, many of whom died a premature death. The facility has been flexible and responsive to the needs of the users and services available.

Shelter-based convalescence program in Amsterdam
In Amsterdam, shelter-based convalescence care facilities were introduced in the early 1990s. In these a relatively small proportion of the Amsterdam general hospital beds were occupied by HIV infected drug users [14]. As a result of lifestyle concerns and strict admissions criteria, aftercare for this group was not offered by the mainstream nursing homes. Initially in two shelters, a total of ten over-night beds were transformed to 24-hour convalescence care beds to fill the hospital-to-streets gap. Through the years, in response to a growing care need, in three shelters the number of convalescence beds has increased to a total of 134 beds today. The convalescence care beds were embedded in the system of medical care provided by health professionals from the Municipal Public Health Service (MPhS) in Amsterdam, that also provides outreach medical care in three day centers, and three overnight shelters and 18 residence shelters (in total 1,090 beds). The convalescence care facility, named the Gastenburgh, a Salvation Army run shelter located in the Amsterdam red light district. It started as an overnight shelter in the 1980s, and gradually transformed into a facility with 25 convalescence care beds and 25 chronic nursing care beds today. At admission, the patient is assigned a MPhS physician, and demographic data, medical conditions, medication and treatment plan were recorded. The experiences of the treating physician [17], referral letters and the available medical letters in the MPhS electronic client records were used, and diagnoses were coded according the International Classification of Primary Care (ICPC) [18].

Methods
Study population and data collection
For this study, data were collected at a shelter-based convalescence care facility, named the Gastenburgh, a Salvation Army run shelter located in the Amsterdam red light district. It started as an overnight shelter in the 1980s, and gradually transformed into a facility with 25 convalescence care beds and 25 chronic nursing care beds today. At admission, the patient is assigned a MPhS physician, and demographic data, medical conditions, medication and treatment plan were recorded. The experiences of the treating physician, referral letters and the available medical letters in the MPhS electronic client records were used, and diagnoses were coded according the International Classification of Primary Care (ICPC) [18].
patients were self-referred and admitted for convalescence care. Referrals also occurred through social networks such as social workers at day centres and general residence shelters, police, and after release from prison. Medical referrals included those from general practitioners, hospitals, MPHs outreach safety net teams and MPHs drug clinic [16], as well as addiction health clinics and mental health services. The duration of the admissions was measured in days, from the date of admission till the day of discharge or death.

The whereabouts after discharge where divided in social and medical settings. Social settings could be: a house (rent apartment, sub renting, including doubling up with family or friends), general residence shelters, prison, the streets and unsheltered places, or unknown in case of self discharge or expulsion due to misconduct. Medical settings could be: a shelter-based chronic care facil-

Study assessments and analysis

Statistical analyses were performed using SPSS 14.0 and were mainly descriptive. Demographics, diagnoses, length of stay and whereabouts after discharge were compared between the years of admission. Differences were com-

Results

Written consent for inclusion to access information was obtained, this was granted in 99% of those asked. With a total of 889 admissions by 629 unduplicated individuals, between January 2001 and October 2007, the majority of the convalescence care users were admitted once (75%) or twice (18%). A small group (n = 46) was admitted from 3-13 times for a total 192 admissions; this was 22% of all admissions. No seasonal influences were noticed, as 54% of the admissions were in October to March.

Table 1: Demographics and chronic medical conditions among shelter-based convalescence care users in Amsterdam between 2001-2007

<table>
<thead>
<tr>
<th>Demographics (n = 629)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>520</td>
<td>83</td>
</tr>
<tr>
<td>Female</td>
<td>109</td>
<td>17</td>
</tr>
<tr>
<td>Age in years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>30-39</td>
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<td>40-49</td>
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<td>50-59</td>
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<td>60-78</td>
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<td>Country of birth</td>
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<tr>
<td>Netherlands</td>
<td>334</td>
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<tr>
<td>Suriname/Aruba</td>
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<td>18</td>
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<tr>
<td>Morocco</td>
<td>36</td>
<td>6</td>
</tr>
<tr>
<td>Europe/North America</td>
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<tr>
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<tr>
<td>Regi/imigrants</td>
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<tr>
<td>Health insurance (n = 552)**</td>
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<td>68</td>
</tr>
<tr>
<td>Chronic medical condition</td>
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<tr>
<td>Addition total (overlap)</td>
<td>493</td>
<td>78</td>
</tr>
<tr>
<td>Heroin (and/or cocaine)</td>
<td>259</td>
<td>41</td>
</tr>
<tr>
<td>Methadone prescription</td>
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<tr>
<td>Cocaine (non heroin)</td>
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<tr>
<td>Alcohol</td>
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<tr>
<td>Mental health disorder</td>
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<td>13</td>
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<tr>
<td>HIV infection</td>
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<td>11</td>
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<tr>
<td>Tuberculosis life time</td>
<td>32</td>
<td>5</td>
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</tbody>
</table>

** Mean age females 41.3 years (SD 12.2 years) (range 17-74 years); mean age males 45.8 years (SD 15.3 years) (range 18-78 years).

Table 2: Medical diagnoses upon shelter-based convalescence admissions in Amsterdam between 2001-2007

<table>
<thead>
<tr>
<th>ICPC*</th>
<th>Chapter</th>
<th>admissions n</th>
<th>%</th>
<th>persons n</th>
<th>%</th>
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<td>P</td>
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<tr>
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<td>skin</td>
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<td>R</td>
<td>respiratory</td>
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<td>L</td>
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<td>166</td>
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<td>circulatory</td>
<td>123</td>
<td>14</td>
<td>100</td>
<td>16</td>
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<tr>
<td>A</td>
<td>general and unspecified</td>
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<td>13</td>
<td>101</td>
<td>16</td>
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<tr>
<td>T</td>
<td>endocrine, metabolic, nutritional</td>
<td>97</td>
<td>11</td>
<td>77</td>
<td>12</td>
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<tr>
<td>N</td>
<td>neurological</td>
<td>87</td>
<td>10</td>
<td>78</td>
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<tr>
<td>U</td>
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<tr>
<td>H</td>
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</table>

* International Classification of Primary Care (ICPC) [18]
Discussion

Characteristics of users and admissions

This study analysed the profile and dynamics of shelter-based convalescence care users over a period of seven years in Amsterdam. The users were mainly male, around 45 years and Dutch born. Upon admission, the physical problems primarily consisted of disorders of the skin as well as pulmonary, digestive and musculoskeletal conditions. Chronic medical problems were mainly substance use (78%), mental illness (21%), HIV/AIDS (11%) and cirrhosis of the liver (5%). Referrals were interlinked with the services available, and general hospitals and MPHS drug clinics were the main sources. After an average stay of 47 days, only 10% improved their housing situation and 23% went to a medical setting. The overall mortality rate was 13%, and independent risk factors were male gender, HIV, mental illness, dual diagnosis, liver cirrhosis and malignancy. Over the years, fewer men were admitted, with significantly more self neglect, personality disorders and cocaine use. Lengths of stay increased and less self-discharge was noticed during the study period.

Strengths and limitations

The strengths of this study are that the provision of outreach care and the collection of data were done by the same individuals. During the study period of seven years, data were collected systematically and the diagnoses, assigned in most cases by specialists in general hospitals and drug clinics, were scored by the outreach physician. This study has several limitations. First, the sample size was a selection of ill homeless people who were in contact with service providers and who knew the routing towards admission for convalescence care. Therefore, the data can not be generalised to the total ill homeless population, including those out of reach of services in Amsterdam. Second, underreporting of medical conditions is likely to due to limitation of record discretion of often voluminous electronic patient records, and due to unshared information among multiple medical service providers. Third, the mortality rate might be higher than reported here due to incomplete routing to discharge in the population registries and MPHS electronic patient records, e.g. death of unidentified corpses, loss to follow up, and illegal immigrants who are not included in the official death statistics.

Comparison to other convalescence care facilities

In Australia, Canada, Germany, the Netherlands and the US, the convalescence care users were predominantly male, and the mean age was also around 45 years. The rate was mostly Caucasian in Australian, Canadian and Dutch studies while in the US most were African American [1-8]. The medical conditions stated in our study are comparable to other studies of convalescence care in homeless persons. In convalescence care studies the users presented, more or less, with what O'Connell et al. refer to as tri-morbidity: a mix of addiction, mental and physical health problems [19]. We found 59% drug users, 28% alcohol users and 21% were known with a mental illness. Among convalescence care users in Rotterdam (n = 99); the figures are similar; drugs 69%, alcohol 32% and mental illness 28% [8]. Among Cottage Project users in Melbourne (n = 45); the figures were; alcohol 70%, drugs 32%, and mental illness 14% [1]. In Canada and the US, the figures for substance use were 30% and 31% respectively, and for mental illness 84% and 46% respectively [2-4]. These figures, including physical problems, show a high prevalence of tri-morbidity among convalescence care users in the western world. Our referral patterns, length of stay and discharge locations are comparable to those in other studies, and discharge locations were, more or less, the previous circumstances, residence shelters, and facilities for chronic nursing or hospice care [1-8].

Mortality

Thirteen percent of the users had died during the course of our study. In Boston, O’Connell et al. [19] designed a high risk profile among homeless people, based on risk factors for premature mortality among homeless persons, that sleep on the streets 6 months or longer with one of the following conditions: 1) tri-morbidity of substance use, severe persistent mental illness, and multiple chronic physical problems (a physical problem refers to a problem resulting in hospital admission, multiple emergency department visits (3 or more visits in the previous 3 months), or admission to the respite facility anytime during the previous year), 3) age over 60 years, 4) known HIV/AIDS, 5) known cirrhosis, end-stage liver disease or renal failure, 6) previous history of frostbite, hypothermia, or survival less than one year. Fourteen percent of these conditions are consistent with those among the homeless in our study. Many users were diagnosed with tri-morbidity, 21% stayed in a general hospital prior to convalescence care admission, all were admitted for convalescence care due to lack of medical facilities. In the Netherlands, 9% was over 60 years, 11% was known to be HIV infected, 5% had liver cirrhosis and 17% presented immersion foot. Comparable, we found an increased mortality rate for HIV, dual diagnosis, liver cirrhosis and mental illness.

The high mortality rate among the convalescence users in our study might be explained by the fact that the homeless population in Amsterdam most commonly consists of mentally ill people who would have been admitted in mental health institutions 20-30 years ago, and long-term opiate users and alcoholics who can not live independently, and who depend on fragmented services [15,16]. Furthermore, the Netherlands is an advanced welfare state with a large social housing sector, housing and welfare benefits, universal health insurance, and numerous arrangements for the lowest income groups. Those who fall through all safety nets available might be the most difficult to serve in the community.

15 years convalescence experience and practice implications

In our experience, referrals, admissions and destinations after discharge depend on many factors. What is the size and nature, and the development of the profile, of the homeless population and of the community services? Do homeless people themselves know when, how and where to find assistance? Are the partners in the mainstream social and medical care network aware of the existence of the convalescence service, the admission criteria and the routing to realise admission? Is transportation or personal guidance needed to make sure the ill homeless person will arrive at the shelter? Is payment or having a medical insurance card obligatory to access? Are the facility and staff equipped to address multiple and complex conditions [20,23]? Furthermore, the length of admission, hence the next place to stay, depends on the nature and severity of problems among the convalescence care users on one hand, and the availability of possible oriented services in the community on the other. Waiting lists for a place in a general shelter or guided living facilities extend the length of stay.

In Amsterdam, the development of the size and nature of marginalized populations, such as the elderly, drug and mentally ill patients, has been monitored for many years [15,16]. We have been witnessing an aging and frail population in growing need for tri-morbidity and palliative care. Among the homeless population, a subgroup suffers extreme cocaine and/or alcohol dependence and conduct disorders that make them hard to serve other than during moments of crisis, and multiple hospital, convalescence and prison admissions. Over the recent years, however, to several individuals with this profile,
compulsory psychiatric treatment measures have been applied to reduce harm and prevent avoidable deaths.

In anticipation to trends and care needs among homeless people in Amsterdam [22], and with substantial national and local financial support, housing, social and medical services have been able to expand their activities. More guided living options in the social housing sector are being offered, more integrated one stop social medical service units are and will be build, and the number of beds in shelters, addition and mental health care facilities are being increased [23]. In addition, in 2003, the sheltered-based convalescence care facilities, as well as general shelters and regular nursing homes, were able to adapt and/or transform their services into a chronic guiding, nursing and/or convalescence facility, by additional public insurance funding through the Exceptional Medical Expenses Act. As a result, community services have been able to cater for more marginalised people. It is within this context, most likely, that we witnessed a decrease of the number of admissions, an increase in the length of stay and less self-discharge towards the end of our study. The convalescence facility has been flexible and responsive to the needs of the users and services available.

Conclusion

In Amsterdam, community services are challenged to prevent homelessness most commonly among single living men with financial mismanagement, addictions and/or mental health problems [24-26]. Specifically, treatment services should target a new generation of cocaine users to prevent further marginalisation [27]. To reduce harm to the individual and society, care providers should target individuals at high risk of tr-morbidity and mortality. To apply upstream prevention strategies, intensive social medical care programs, similar to the nature of shelter-based care programs in the United States and Canada [28], are needed. More research is required to understand the needs of the users and services available.

Competing interests

The authors declare they have no competing interests. No funding was provided for this research.

Authors’ contributions

JvL contributed to the study design and implementation, collected data and wrote the manuscript. MD analysed the data and assisted in writing the manuscript. NK contributed to the manuscript design and assisted in writing the manuscript. All authors read and approved the final manuscript.

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References

23. [Off the street: better care, less homelessness and less mortality. Changes in service delivery for the years 1997-2010].
chapter 7

General discussion and conclusions
This thesis explored strategies to help prevent people from experiencing social medical decay. Hereto, we aimed to address:

1. What are the characteristics of people at risk of social medical decay?
2. How can we find and identify these individuals?
3. How can we help them before and during different phases of homelessness?

In order to find the answers, various phases of social medical decay were studied addressing five sub-questions:

1. What are the characteristics and social medical risk factors of households at risk of eviction in Amsterdam?
2. How effective is the signalling and referral system for households at risk of eviction in Amsterdam?
3. What are the characteristics, social medical problems and service contacts of recently homeless people before and during homelessness, related to their pathways into homelessness?
4. What are the characteristics, social medical problems and mortality of homeless adults visiting the GGD Outreach Dr. Valckenier-Practice?
5. What are the characteristics, social medical problems and mortality of homeless adults admitted at a shelter-based convalescence care facility in Amsterdam?

This chapter will reflect on the results of the five studies, will discuss strengths and limitations of the studies, and finally, offer recommendations on how to improve social medical care before and during homelessness in Amsterdam.

### Model of social medical decay

The pathway into social medical decay is represented by subgroups of individuals who find themselves in a progressive state of social and medical decay: the housed at risk of eviction, the recently homeless, the long term homeless and mortality among homeless people. In the different phases, the characteristics (sex, age, country of birth), social problems (low income, financial difficulties, and/or homelessness), medical problems (addiction, mental and physical disorders; and the combination = tri-morbidity), and mortality, are shown, where available.

The results of the five studies are summarised in Table 1.

Between 1997 and 2008, of the different samples, point prevalence information was collected at a variety of sites and from various data sets provided by the housing associations, nuisance control care networks, popular street hang outs, day centres, social assistance centres, emergency shelters, general shelters, a shelter-based convalescence care facility, GGD patient records, and the Amsterdam Population Register. Data for the housed at risk of eviction were collected through case workers of housing associations and nuisance control care networks by the use of their own client records. For the recently homeless, data were collected by social science students using structured face-to-face interviews, and for the long term homeless and shelter-based convalescence care users, GGD outreach doctors conducted structured face-to-face consultations on the job.

### Table 1 Phases of social medical decay, research groups and results

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| single male | 49 / 61% | 88% | 84 / 82 / 88% | 83% |
| single female | 16 / 13% | 12% | 16 / 18 / 12% | 17% |
| mean age (years) | 39 / 41 | 38 | 43 / 45 / 38 | 45 |
| Dutch | 49% / na | 48% | 68 / 63 / 37% | 53% |
| Surinam/Antilles | 19% / na | 18% | 12 / 22 / 28% | 18% |
| social problems | 71 / 54% | 51 / 24% | 100% | 100% |
| mental | 33 / 72% | 56 / 63% | 61 / 26 / 21% | 21% |
| medical problems | 23 / 82% | 76 / 74% | 100% | 100% |
| addiction | 30 / 61% | 48 / 22% | 54 / 63 / 45% | 78% |
| physical | 11 / 23% | 22 / 24% | 92 / na / 52% | 100% |
| tri-morbidity | na | na | 33% / na / 7% | 13% |
| Mortality* | na | na | (n=74) 20% | (n=83) 13% |
| Overall SMR** | na | na | 6.6 | 7.5 |

* Up till November 2008; mortality data were collected among 364 homeless patients visiting the GGD Outreach Dr Valckenier Practice facilities between April 1997-November 1999; and, up till March 2008; among 629 homeless patients using a shelter-based convalescence care facility between January 2001-October 2007. **SMR= Standard Mortality Ratio; na = not available

### Overview of the five sub-questions and answers

1. What are the characteristics and social medical risk factors of households at risk of eviction in Amsterdam? (Chapter 2)

The magnitude of the evictions problem and the households at risk of eviction in Amsterdam was explored. We identified these households by narrowing down the numbers to focus on only those in the process leading to an execution of an eviction by following the major causes of evictions: rent arrears and housing related nuisance. In Box 1, the numbers for the situation in the Netherlands and Amsterdam in 2007 are outlined.
We sought information about social services that help clients with rent arrears and nuisance problems. Case workers of 12 housing associations and 13 nuisance control care networks filled out questionnaires that provided information about households at the brink of eviction. Questionnaires for the rent arrears group and nuisance group revealed the following. Of 275 households with rent arrears, 132 were evicted. Of 190 nuisance households, 136 were evicted. In both groups, the largest household group were single male tenants between 25-44 years. Among the households with rent arrears, 3,200 were served with an eviction court order, and 825 households evicted. For those reporting rent arrears, social problems were reported in 71% of the cases, medical problems in 82%. It was found that financial difficulties were a risk factor for a drug addiction problem (OR 3.58 (0.96-13.39)). For nuisance households, social problems were reported in 23%; independent risk factors for eviction were being of Dutch origin (OR 2.38 (1.30-4.36)) and having 25-44 years. For those reporting rent arrears, housing associations in Amsterdam should conduct more house visits to identify underlying social and also medical problems. In response to the “loud” signal of nuisance, despite the high occurrence of medical assistance (92%), financial support was insufficient. Households at high risk of eviction should be actively signalled and assisted by local networks providing housing, social and medical care. Only an integrated approach can keep more people off the streets.

We studied the functioning of the signalling and referral system to find and help those at risk of being evicted. Questionnaires completed by case workers of 12 housing associations (for rent arrears) and by case workers of 13 nuisance control care networks (for nuisance) were used. The signalling system used to identify those who are at high risk of eviction, was evaluated by examining the extent of problems that were identified by the case workers. The referral system was evaluated by comparing the identified problems with the assistance contacts.

For 275 households with rent arrears, housing associations reported social problems in 19% (71%), of which 94 (48%) were in contact with social assistance. Medical problems were reported in 62% (23%) households of which 18% (29%) were in contact with medical assistance. House visits by housing associations resulted in a much higher identification of problems, and were associated with a reduced eviction risk (relative risk 0.57 (95%CI: 0.43 to 0.75)).

For 190 nuisance households, nuisance control care networks reported social/financial problems in 103 (54%), of which 13% (13%) were in contact with social assistance. Medical problems were reported in 155 (82%), of which 142 (92%) were in contact with medical assistance.

In response to the “silent” signal of rent arrears, housing associations in Amsterdam should conduct more house visits to identify underlying social and also medical problems. In response to the “loud” signal of nuisance, despite the high occurrence of medical assistance (92%), financial support was insufficient. Households at high risk of eviction should be actively signalled and assisted by local networks providing housing, social and medical care.

2. How effective is the signalling and referral system for households at risk of eviction in Amsterdam? (Chapter 3)

To identify recently homeless adults, (defined as “last housing lost up to two years ago and legally staying in the Netherlands”), we collected data on the streets, day centres and night shelters in Amsterdam. In April and May 2004, social science students conducted 120 interviews and collected data on demographics, self reported pathways into homelessness, social and medical problems, and service use, before and after becoming homeless.

Of the 120 recently homeless adults, 88% were male, 50% were born in the Netherlands, and 25% in Surinam/Netherlands Antilles. The average age was 38 years old (range 18-67 years old). The mean duration of homelessness was 23 weeks. Before homelessness, 81% reported social problems (financial debts 61%, domestic conflicts 46%) and 76% reported medical problems (substance addiction 57%, gambling 18%, mental health problems 56% and physical health problems 22%); 38% reported contacts with any type of social service and 27% with any type of medical service. Despite these contacts, they were unable to remain housed. During homelessness, financial problems (68%), mental health problems (63%), and the use of social services such as shelters and benefits agencies (83%) was reported. A decrease was reported for substance addiction (20%), gambling (3%) and the use of medical services remained low (27%).

3. What are the characteristics, social medical problems and service contacts of recently homeless people before and during homelessness, related to their pathways into homelessness? (Chapter 4)

In response to the findings above outlining the characteristics of those most threatened by rent arrears and/or nuisance, services should reach out and offer integrated social and medical care.
The main reported pathways into homelessness were evictions 38%, relationship problems 35%, prison 6% and other reasons 22%. Compared to those who reported relationship problems as a pathway into homelessness those who reported eviction were slightly older (average age 39.6 years versus 35.5 years; p=0.08), and belonged more often to a migrant group (p=0.025). They also reported living alone more often (p=0.001), more financial debts (p=0.009), more alcohol problems (p=0.048) and more contacts with debt control services (p=0.009). The relationship group reported more domestic conflicts (p<0.001) and tended to report more drug (cocaïne) problems.

In all pathways into homelessness, the recently homeless fit the overall profile of the homeless population in Amsterdam: single (Dutch) men, around 40 years, with a mix of financial debts, addiction, and mental and/or physical health problems. Contacts with services were fragmented and did not prevent homelessness. For homelessness prevention, systematic and outreach social medical care should be provided continuously before and during homelessness.

4. What are the characteristics, social medical problems and mortality of homeless adults visiting the GGD Outreach Dr. Valckenier-Practice? (Chapter 5)

This study aimed to describe homeless patients who visited the GGD Outreach Dr. Valckenier-Practice at different sites during three time periods: group A (n=364) April 1997- Nov 1999; group B (n=124) Sept-Dec 2000; and group C (n=137) Feb-May 2005. During outreach activities data were systematically collected and included the personal characteristics, pathways into homelessness, medical problems for all three groups, and the reasons for encounter and mortality for group A only.

The homeless patients visiting the GGD Outreach Dr. Valckenier-Practice’s primary care facilities in Amsterdam, were mainly male (85%), in the 30-49 age group (60%), and of Dutch origin (37-68%) or from the former Dutch colonies Surinam/Antilles (12-28%). The three major pathways into homelessness were relationship problems (28-31%), financial debts/evictions (21-37%), and after leaving prison (8-23%). Between the three groups, the average length of homelessness varied from 2 to 7 years. In all groups, one quarter of the homeless patients reported alcohol dependency, one third drug dependency, one fifth to nearly two thirds reported mental health problems, and over half reported physical conditions.

In group A (n=364), one third presented tri-morbidity, reflecting a high burden of disease, and 20% had died by 2008, ten years after the first encounter. The overall standard mortality rate was 6.6 (95% CI: 4.1-13.5) for males and 13.3 for females. Multivariate analysis showed a significantly increased risk of death for individuals with problems related to HIV, alcohol addiction, asthma/COPD, drug addiction, and (univariately) for liver cirrhosis and diabetes.

Homeless patients in Amsterdam, most commonly male, between 30-49 years old and of Dutch origin, were in poor health. In outreach practice, predictors of early death should be acknowledged and targeted social medical care be provided.

5. What are the characteristics, social medical problems and mortality of homeless adults admitted in a shelter-based convalescence care facility in Amsterdam? (Chapter 6)

This study analysed the profile and dynamics of shelter-based convalescence care users in Amsterdam over a period of seven years. Hereto, data on the characteristics of ill homeless adults, medical conditions, referral pattern, length of stay, whereabouts after discharge, and mortality, were collected during outreach care provision in a shelter-based convalescence care facility in Amsterdam from January 2001 through October 2007.

Six hundred twenty nine individuals accounted for 889 admissions to the convalescence care facility. Eighty-three percent were male and 53% were Dutch born and 18% were of Surinamese/Antillean origin. The mean age was 45 years old (SD 10 years old). Upon admission, the primary physical problems presented were skin disorders (39%), respiratory disorders (34%), digestive disorders (26%) and musculoskeletal disorders (14%). Common chronic medical problems included addiction (78%), mental health disorders (21%), hypertension (16%), HIV infection (11%), and liver cirrhosis (5%).

Referrals went through general hospitals (21%), GGD drug clinics (20%), day centres for the homeless (14%), primary health care (8%), GGD Safety Net department (7%), addiction/mental health clinics (6%), and others (6%), and 18% were homeless self referrals. The median length of stay was 20 days, the average length of stay was 47 days, and 41% stayed for up to two weeks. After (self) discharge, 63% went back to previous circumstances (streets, overnight shelter, prisons; including those suspended/arrested due to misconduct), 10% improved their housing situation, and 22% went to a medical setting.

By March 2008, one in seven convalescence care users (n=83; 13%) were known to have died. Among 82 users (for 1 person data was incomplete), 74 were male, the mean age was 52.7 years old (SD 10.7 years old; range 32-77 years old). Overall, the convalescence care users died seven and a half times more often than their housed counterparts with comparable sex and age in Amsterdam; the standard mortality rate was 7.5 (95% CI: 4.1-13.5), for males it was 7.6 and for females 6.5. Survival analysis, with correction for age and sex, showed an increased mortality risk: for those with HIV, with a hazard ratio of 3.5 (95% CI: 2.1-5.7); dual diagnosis 2.2 (95% CI: 1.3-3.9); cirrhosis of the liver, 2.1 (95% CI: 1.0-4.6); mental illness, 1.6 (95% CI: 1.0-2.6); and malignancy, 7.8 (95% CI: 3.5-17.2). Over the years, fewer men were admitted with significantly more self neglect, personality disorders and cocaine use. Lengths of stay increased and less self-discharge was noted during the study period.

The shelter-based convalescence care facility has been flexible and responsive to the needs of the users and services available. These findings reconfirm the need for early identification and support for those homeless people with a high risk mortality profile.
**Strengths and limitations**

The major technical obstacle to the study of the nearly homeless and homeless people lies in the fact that conventional censuses and surveys are premised on the assumption that almost all persons can be reached and queried in their dwellings, a premise that is untenable by definition when dealing with the nearly homeless and homeless people. Consequently, our model of social medical decay and the five sub-populations presented in this thesis are incomplete and biased. In Amsterdam, a central register of defined vulnerable citizens (those at risk of social medical decay) and their actual whereabouts is not available. Although we lack such a register, for which fundamental research is needed to understand the relationship between poverty, welfare problems and social exclusion; people at risk of social medical decay are known to be found in many specific places and settings, and thus accessible for these research purposes. For practical reasons, among others, we did not include people at risk of eviction in the private rent sector.

Furthermore, the causes and consequences of eviction remain shrouded in a degree of mystery, partly because of the practical and ethical problems posed in attempting to research such issues. In particular, while it would be highly desirable to track and interview a cohort of households subject to eviction, there are obstacles to identifying, tracing and contacting such households following eviction. However, given the circumstances, we used point-prevalence information to draw a picture of people who find themselves in several phases of social medical decay. For each study we will comment on the strengths and limitations.

Regarding the households at risk of eviction (chapter 2 and 3), the Amsterdam networks for rent arrears and nuisance and those agencies involved at some point in the eviction process all had a different approach to providing and reporting their activities. One obstacle in reporting the data was the fact that agencies only recorded information that is pertinent to the provision of their service information. Combining the information into a meaningful and complete dataset was not an easy task considering the multitude of problems among households at risk and the different services available. Nevertheless, following earlier studies related to evictions in Amsterdam, it was possible to present the magnitude of the numbers in the process leading to evictions and the households at risk in Amsterdam.

The evictions studies have several limitations. Although all the Amsterdam housing associations participated in the study, two of them provided the majority of the completed questionnaires. We do not know if the other ten housing associations completed a questionnaire for all of their tenants presented to the bailiffs during the study episode. Underreporting and selection bias are likely. However, based on an estimate of the number of expected bailiff presented tenants, we believe that the number of tenants in our study is representative for the situation in Amsterdam. A further limitation of this study was that data were not directly collected from the households concerned, but from front line workers that first made contact with these households. This second hand account does potentially add a layer of interpretative bias. Most likely this has resulted in underreporting of medical problems, such as gambling addiction and physical health problems. Based on the interviews with case workers and our own practice experience, we believe the data are valid and reflect the situation and problems of those tenants at risk of eviction in Amsterdam.

The strength of the study among the recently homeless (chapter 4) was that there was access to key informants and the locations where recently homeless people tend to gather. There was a high response rate among the recently homeless who were approached for an interview. This study involved two principal limitations. First, the data regarding medical problems were based on self-reported information. Specifically for psychiatric problems, diagnostic or clinical instruments were not used, therefore data cannot be compared with other studies. Furthermore, some respondents mentioned having trouble remembering the number of services they had used over time. Second, a random sample of the recently homeless could not be drawn since the duration of homelessness is not registered at day centres and shelters and is not available for those not using these facilities.

The strength of the study among homeless patients visiting the GGD Outreach Dr. Volkskrver Practice (chapter 5) was that the vast majority of the homeless patients were assessed and cared for by the same outreach doctors. For all subjects, basic data were collected and included the three general groups of medical problems (addiction, mental and physical health problems). Specifically, these categories were used to determine the prevalence of bi- and tri-morbidity to delineate the burden of disease, and to include physical problems that might be overlooked when the focus is on dual diagnosis (addiction and mental health problems). One limitation was that the information collected regarding medical problems differed between the groups. Due to lack of information, fragmented knowledge between service providers, it is possible that not all medical conditions were known. Hence, underreporting is likely. However, the results show more similarities than differences compared with the total homeless population in Amsterdam, Rotterdam, and abroad.

The strength of the study among the shelter-based convalescence core users (chapter 6) was that the provision of outreach care and the collection of prospective data were done by the same individuals. During the study period of seven years, data were collected systematically, and in most cases, the diagnoses assigned by specialists in general hospitals and GGĐ clinics were scored by the same outreach doctor.

The study among convalescence users has several limitations. First, the sample was a selection of ill homeless people who were in contact with service providers and who knew the routing towards admission for convalescence care. Therefore, the data can not be generalised to the total ill homeless population, including those out of reach of services in Amsterdam. Second, underreporting of medical conditions is likely due to limitation of record distraction of often voluminous medical records, and due to unshared information among multiple medical service providers. Third, the mortality rate might be higher than reported here due to incomplete data in the population registrar and GGĐ electronic patients records, e.g. death of unidentified corpses, loss to follow up, and illegal immigrants who are not included in the official death statistics.

**Answer to the central questions**

1. What are the characteristics of people at risk of social medical decay in Amsterdam?
2. How can we find and identify these individuals?
3. How can we help them before and during different phases of homelessness?

**Characteristics of people at risk of social medical decay in Amsterdam**

In Amsterdam, of the people at risk of social medical decay, the vast majority were found to be single men aged 25-54 years with social medical problems. These problems concerned maintaining or obtaining housing due to financial mismanagement and/or conduct disorders that interact with medical problems of addiction, mental, and physical health (tri-morbidity). Prior to becoming homeless and throughout the different phases of homelessness, the demographic profile remained the same: single men, half were born in the Netherlands and one in five was of Surinamese / Netherlands Antillean origin, and social and medical problems tended to mount until early death.
Among the 275 housed at risk of eviction due to rent arrears, again, the majority were living single and were of Dutch origin. More than half experienced social problems, a quarter was known to have medical problems, and it was found that drug addiction problems significantly increased the risk of eviction. Home visits by social housing associations significantly reduced the risk of eviction. Despite the fact that half of those involved in the study had contact with social services and one third with medical services, they were not able to remain housed. Likely due to underreporting, information on physical problems is lacking.

Among the 190 housed at risk of eviction due to housing related nuisance, it was found that one third also had financial mismanagement issues, two thirds had addiction problems and one third had mental health problems. Financial mismanagement was a significant risk factor for eviction. Despite a high occurrence of medical assistance (92%), financial support was insufficient. Information on physical problems was most likely underreported.

Of the recently homeless individuals (n=120), two thirds reported financial problems (the average debt was 8,500 Euros), one in five reported gambling problems, and three quarters reported medical problems. Forty percent of the recently homeless were homeless before an eviction. Before the eviction they were more often living single, belonged more often to a migrant group, and had more financial and more alcohol related problems than those who were homeless due to other reasons. Despite that four out of five evictees were having contact with debt control services, evictions were not prevented. One third of the recently homeless were homeless due to relationship problems and they reported more domestic violence and, often, cocaine problems. Before and during homelessness, one quarter reported physical problems. Overall, contacts with medical services were very low.

Long term homeless patients presented more medical problems than those threatened with homelessness and the recently homeless. Among the three different groups of ill homeless patients who visited a GGD outreach doctor in the last decade (n=625), 50-80% suffered from addiction, 20-61% were having mental health problems, and 50-100% presented a combination of physical health problems (skin, pulmonary, injury, cardiovascular, cirrhosis, epilepsy, HIV/Hepatitis B/C, cancer). The wide range in the prevalence of problems might be the results of the fact that these data were collected on three different sampling sites and therefore included homeless persons with different characteristics, such as the duration of homelessness.

Homeless patients who had died during the course of the study had reached the end stage of social medical decay. Their mortality profile was mainly single (white) males with an average age of 50 years old and with progressive tri-morbidity. A significantly increased risk of death was observed among homeless individuals with problems related to HIV, malignancies, alcohol addiction, cirrhosis of the liver, mental illness, mental health disorder and addiction, chronic pulmonary conditions, and diabetes. Overall, homeless patients had died 6.6 to 7.5 times more often than their housed counterparts in Amsterdam.

How can we find and identify these individuals?

In daily practice, when identifying vulnerable people, their social medical profile and their (potential) pathways into social medical decay should be acknowledged. Consequently, defined warning signals of vulnerability should actively be picked up by professionals in housing, social, medical and correctional services.

Prior to an individual experiencing homelessness, in the general housing sector, landlords and service providers should be sensitive to the silent alarm of rent arrears, and the loud alarm of nuisance (chapter 2 and 3).

The income sector (unemployment, disability) should detect vulnerable people with unmet support needs among those applying for and/or receiving benefits and/or debt control assistance.

During homelessness, the shelter sector (volunteer services, day centres, emergency and general shelters for homeless people) and specific income sector (benefits and debt control programs for homeless people) should prioritize their assistance actively and consciously at the most vulnerable with the profile described above.15-16 Both before and during homelessness, professionals in the judicial sector (police stations, courts, prisons and correctional institutions)20-21 and in the medical sector (primary care, general hospitals, addiction and mental health clinics, and GGD outreach care programs for vulnerable inhabitants) all have the possibility and responsibility to detect those with the profile described above.21

In contrast, in the medical sector, there is often both a failure to identify problems related to deficiencies in patients’ social support systems and a lack of knowledge of referral possibilities outside the medical system.22-25

To quote what Dr. Querido, professor of social medicine at the University of Amsterdam, already stated in 1955: ‘if the medico-social work has remained undeveloped or is developing separately from medicine, the fault may be laid at the doctor’s door; but there is no reason to accept this situation’22. Today, in 2009, the divide between medicine and social care still exits.26-27

How can we help them before and during different phases of homelessness?

The study results provided in this thesis relate in several ways to current policies and projects undertaken, and the responsibilities and competences of the workforce. To place the study results into perspective we describe recent policies and projects that aim to support the most vulnerable people in our communities. In the Netherlands, the Social Support Act (WMO) was introduced in 2007. This Act specifically includes a ‘performance field’ to serve those threatened with homelessness, the residential and factual homeless people. This performance field is named Public Mental Healthcare; in Dutch: Openbare Geestelijke Gezondheidszorg.20,21 The OGGZ, developed itself as a harm reduction ‘patchwork-system’ for vulnerable people with multiple problems, who, stepwise and increasingly, harm themselves, their social networks, if any, and society. In response, specific social and medical services appeared, stepwise and increasingly, in fragments.

In 2006, as a preamble to the Social Support Act, the Dutch Government and the four big cities (Amsterdam, The Hague, Rotterdam and Utrecht) introduced a Social Relief Plan to reduce homelessness and to improve the condition of those who are homeless.33 As a guideline to translate the Social Relief Plan to the local situation, the objectives and methods were presented in a so called City Compass.33 In table 2, the OGGZ objectives, target groups, ambitions, and performance indicators, are shown. The target groups, ambitions and the performance indicators are based on a so called five step OGGZ ladder.33 Along this ladder, each step down represents a growing burden of multiple and interacting problems, and a growing need of multiple services and professionals to reduce harm. The last step reflects the setting of the factual homeless. The steps down the OGGZ ladder are compatible with the different phases of social medical decay postulated in this thesis. However, in the Social Support Act, the Social Relief Plan and the City Compass, the dominant approach is a social support perspective, rather than a social medical care perspective.34-37 The implications of this dominance will be discussed below.

6 On 1 January 2007 the Social Support Act (Wet maatschappelijke ondersteuning)(WMO) came into force in all municipalities in the Netherlands. Under the Act, the municipalities are now responsible for setting up social support. The aim of the Act is participation of all citizens to all facets of the society, whether or not with help from friends, family or acquaintances; the perspective is a coherent policy in the field of the social support and related areas. (http://www.minvws.nl/themen/social-support-act/default.aspx)
Table 2. Reduction of Homelessness: the Dutch Government’s Public Mental Healthcare (OGGZ) Objectives, Target Groups and Ambitions

<table>
<thead>
<tr>
<th>General Objectives</th>
<th>Increase life expectancy</th>
<th>prevent avoidable deaths</th>
<th>improve the quality of life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives performance field OGGZ</td>
<td>reduce homelessness</td>
<td>improve the condition of people threatened with homelessness</td>
<td>reduce the related public nuisance</td>
</tr>
</tbody>
</table>

**Target Groups**
- Households at risk of eviction
- Ex-prisoners
- Ex-residential clinic users
- Residential homeless
- Factual homeless / street youth

**Ambitions (performance indicators)**
- 30% eviction rate reduction in the social housing sector between 2005 and 2008 (1)
- 10% reduction in the related public nuisance (2)
- Minimise homelessness after residential clinic discharge (3)
- Minimise homelessness after release from prison (4)
- 75% public nuisance reduction between 2006 and 2013 (5)
- Monitor persons with an individual care plan and 5 or more police contacts within a year (6)

**Source:** Mental Healthcare (OGGZ) Objectives, Target Groups and Ambitions

An overview of the OGGZ projects in Amsterdam

In line with the Social Support Act and the Social Relief Plan, in 2007, the local government in Amsterdam presented 11 OGGZ projects, ambitions and interagency agreements. In Table 3 the OGGZ projects and ambitions are summarized. The footnotes show some data related to the eviction prevention practice, the care and nuisance support practice and the homeless case management practice. Following the results of this thesis, people in social medical decay, their pathways between settings, their problems and service contacts can vary and overlap over time. Therefore, the OGGZ projects and performance indicators are all interconnected.

Table 3. Public Mental Healthcare (OGGZ) Projects and Ambitions in Amsterdam, according to the Social Relief Plan

<table>
<thead>
<tr>
<th>OGGZ project</th>
<th>Ambition (as stated in September 2007)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prevention of evictions due to rent arrears. Early Reach Out</td>
<td>maximum 250 social housing evictions by 2010 (4)</td>
</tr>
<tr>
<td>2. Housing variety (between independent living and the streets)</td>
<td>expand beds/units at the bottom end of the housing market (b)</td>
</tr>
<tr>
<td>3. Care and Nuisance support networks</td>
<td>15 operational networks in all parts of the city by 2010 (c)</td>
</tr>
<tr>
<td>4. Central shelter service for homeless people</td>
<td>referral, assessment and trajectories based in one central shelter</td>
</tr>
<tr>
<td>5. Follow-up care ex prisoners / multiple offenders</td>
<td>integrated approach, more care, less offenders</td>
</tr>
<tr>
<td>6. Central field director trajectories for homeless people</td>
<td>a personal trajectory for all homeless by 2010 (d)</td>
</tr>
<tr>
<td>7. Central coordination street field work</td>
<td>active signalling and personal guidance to services</td>
</tr>
<tr>
<td>8. Independent housing after shelter living (field table exit)</td>
<td>monitor housing and care after living in shelters</td>
</tr>
<tr>
<td>9. Central one stop OGGZ service for income and health care</td>
<td>three integrated provision centres in the city (e)</td>
</tr>
<tr>
<td>10. Park polis (health insurance for the hard to reach factual homeless)</td>
<td>health insurance for 100 factual homeless by 2008</td>
</tr>
<tr>
<td>11. Increase services (housing, income, activities and health care)</td>
<td>monitor and provide additional support by 2010</td>
</tr>
</tbody>
</table>

(a) In Amsterdam, between 1999-2007, the social housing sector reported the highest eviction rate in 2005 (1,046 evictions), and a 22% reduction between 2005-2007 (833 evictions in 2007). However, in the private rent sector, between 2005-2007, the eviction rate increased up to a maximum possible of 27%, from 368 to 468 evictions. In 2007 in the Amsterdam total rent sector, 5,491 households were served with an eviction court verdict (1.9% of all rent dwellings). Of these, 4,167 were presented to the housing effects management (Boedelbeheer), and 1,303 households were evicted.

(b) In Amsterdam, between January 2006 and January 2009, a total of 3,738 OGGZ clients were admitted in a residential Mental Health clinic. Of these, 1,042 (28%) were admitted to the mental health services (GGZ), 577 residential and factual homeless patients during 2,863 consultations, and supported 494 admissions in two shelter based convalescence care facilities and 502 admissions in general hospitals and residential mental health/addiction care clinics.

(c) In Amsterdam, between January 2006 and January 2009, a total of 1,999 beds/units for OGGZ clients in Amsterdam were available: emergency shelter beds 211; central one stop OGGZ services 1,042, 57 and 115 respectively.

(d) In Amsterdam, between 1999-2007, the social housing sector reported the highest eviction rate in 2005 (1,046 evictions), and a 22% reduction between 2005-2007 (833 evictions in 2007). However, in the private rent sector, between 2005-2007, the eviction rate increased up to a maximum possible of 27%, from 368 to 468 evictions. In 2007 in the Amsterdam total rent sector, 5,491 households were served with an eviction court verdict (1.9% of all rent dwellings). Of these, 4,167 were presented to the housing effects management (Boedelbeheer), and 1,303 households were evicted.

(e) In Amsterdam, between 1999-2007, the social housing sector reported the highest eviction rate in 2005 (1,046 evictions), and a 22% reduction between 2005-2007 (833 evictions in 2007). However, in the private rent sector, between 2005-2007, the eviction rate increased up to a maximum possible of 27%, from 368 to 468 evictions. In 2007 in the Amsterdam total rent sector, 5,491 households were served with an eviction court verdict (1.9% of all rent dwellings). Of these, 4,167 were presented to the housing effects management (Boedelbeheer), and 1,303 households were evicted.

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Recommendations for social medical care before and during homelessness

After studying the OGGZ projects, relevant documents and annual reports, it is very difficult to obtain a total overview of the target groups and their social medical problems, and effective methods to find and help those in highest need. Despite the Social Support Act, that aims at a demand driven and integrated approach by services, the various OGGZ project reports are presented solitary, and the contents show an incomplete and fragmented picture of the different target groups described. That is to say, in the Early Reach Out reports (OGGZ project 1) data on the characteristics of the households reported and their social medical problems are not presented. In the Care and Nuisance support reports (OGGZ project 3) data of ethnic backgrounds, financial mismanagement and rental debts are missing and the data of medical problems presented are related to the total group of care and nuisance households reported. It is unknown if medical doctors were involved in the assessment and diagnosing of the medical conditions. Furthermore, the overlap of households known to both OGGZ projects 1 and 3 is unknown. In the homeless case management reports (OGGZ project 6) the pathways into homelessness are not presented, hence the overlap with the households in OGGZ projects 1 and 3 is unknown as well. In all projects data on the physical problems and mortality are missing.

To obtain an overview of all target groups and to analyse data related to the OGGZ, performance indicators, it is of importance to disentangle data of people and their problems, the settings and timing between settings and the process steps during service interventions, and the size and nature of services available. Based on this comprehensive overview of people and their care needs, the size and nature of services, and budgets, can be approximated.

Since the most vulnerable people are burdened with social medical disease, the choice of data collection should be based on a social medical care perspective. This perspectives would imply a defined position and responsibilities of a medical doctor for the assessment of social medical problems, and the making and directing of an individual care plan. However, as aforementioned, to support the most vulnerable people, the Social Support Act, the Social Relief Plan as composed by the four big cities, and the OGGZ performance indicators are based on a social support perspective. The absence of a social medical care perspective is in concordance with the absence of the position and responsibilities of medical doctors in policy documents and in daily practice. In all documents found in only one document a reference was made to a medical professional. In the City Compass, page 26, it was stated that for diagnostics on behalf of care that is covered by the Exceptional Medical Expenses Act (AWBZ) supervision of a psychiatrist is necessary.

Following the above, this means that in the eviction prevention practice, the care and nuisance support practice and the homeless case management practice, medical involvement is not guaranteed, nor systematically provided. Consequently, nearly homeless and homeless people depend on the social medical skills and tri-morbidity knowledge of social and financial workers, and social (mental health) nurses. In Dutch policy parlance the term ‘worrisome care avoiders’ (zorgwekkende zorgmijders) is sometimes used for those groups of people who are not seeking care. However, the term could equally be applied to doctors that seem to ignore the social medical needs of the nearly homeless and homeless people.

Tackling the social determinants of health and the medical issues of nearly homeless and homeless people requires an integral and systematic approach before and during homelessness. The workforce should be knowledgeable about their clients’ characteristics and social medical problems that potentially mount up to evictions, homelessness and premature death. This should imply that in the care processes for nearly homeless and homeless people, doctors should have and active part in the social medical assessment, preventive actions and diagnostic pathways to be taken, and consultation with and referral to medical doctors in the community healthcare network. Therefore, within the OGGZ performance field, medical doctors should play a prominent role in practice, education, research and policy making.

Practice

To reach and support the nearly homeless and homeless people, in all settings, the diagnostic process should be conducted, directed, monitored and followed up by doctors experienced in social medical decay, in close cooperation with social workers, nurses and administrative staff. Consequently, it is recommended to integrate the Early Reach Out support services, Care and Nuisance support networks and the homeless case management networks (OGGZ projects 1, 3 and 6; see table 3). To integrate these networks, the GGD as the central field director, could restore the fundamentals of her safety net role in the community and reposition doctors as directors in the social medical care process before and during homelessness.

Education

To identify problems related to deficiencies in patients’ social support systems and knowledge of referral possibilities outside the medical system, it is recommended to integrate social medical care in the medical curriculum. Doctors in general, and general practitioners and social medicine specialists in particular, should have knowledge how to signal, refer and/or guide vulnerable people in preventable stages.

Through the years, in Amsterdam, GGD doctors experienced with outreach care provision to homeless people have been sharing their social medical skills and tri-morbidity knowledge with visiting medical students and others. These visits are of short duration and therefore have a more observing than participating character. However, a more comprehensive social medical care module can be developed so that medical students, and general practitioners and social medicine specialists in training, can have an active part in providing care to the nearly homeless and homeless people in daily practice. Furthermore, the available expertise among the GGD doctors can actively and systematically be shared with the workforce in the OGGZ projects, in academic settings and e.g. with the mainstream colleagues in city areas where social medical disease is clustered.

Research

Following the results in this thesis, and related to the OGGZ projects introduced, it is evident that an overview on vulnerable people and their unmet support needs should be obtained, regardless their setting. A major problem in researching the health issues of the nearly homeless and homeless people is the lack of an academic basis. As a consequence, much remains to be learned to attain to an understanding how to effectively integrate and target services to find and help the most vulnerable in early stages.

In the Netherlands, encouraging efforts have been undertaken to bridge the gap between practice, research and policy making in public health. Recent efforts are formalized in nine so called Academic Collaborative Centres for Public Health (in Dutch: Academische Werklplaats Publieke Gezondheid). For the OGGZ practice it is essential to collect longitudinal data of the characteristics, social medical problems, and mortality, among the nearly homeless and homeless people. Furthermore, data are to be related to the size, nature and costs of...
services, and the responsibilities and competences of the workforce. These dynamics are best understood by close observation in daily practice.

In addition to the existing data collections related to the OGGZ performance field (see table 2 and 3), a Social Medical Monitor might serve as an integral basis, and a new chance to reduce health differences, in the Academic Collaborative Centres for Public Health. In table 4 an example of such a monitor is shown. The social medical monitor could serve as a tool for practitioners in daily practice, to learn how to perform a systematic social medical assessment, and to collect data on the job, prospectively. The data obtained could serve as a first step towards an overview of vulnerable people, social medical problems, and mortality, and the pathways into social medical decay. Hence, performance indicators can be further developed to improve social medical care before and during homelessness.

The knowledge gained in this thesis on social medical care before and during homelessness should find its way through practice, education and research, and thus constitutes an effective public health intervention.

An Academic Collaborative Centre is a long-term partnership between one or more community health services (GGD municipal public health service) and a university. The main purpose is to improve knowledge transfer between practitioners, policymakers, researchers and the education sector. The specific goals are: 1) to strengthen and establish a knowledge infrastructure with an equal balance between science and practice; 2) to support researchers (PhD or otherwise) working in regional or municipal public health departments; 3) to foster high-quality scientific research relevant to day-to-day practice in public health services; 4) to disseminate and implement research results; and 5) to improve the application of evidence-based interventions and methods in regional or municipal public health services. http://www.zonmw.nl/en/programmes/all-programmes/academic-collaborative-centres/

Table 4  Social medical monitor for people at risk of social medical decay

<table>
<thead>
<tr>
<th>DEMOGRAPHICS</th>
<th>MEDICAL PROBLEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>Addiction</td>
</tr>
<tr>
<td>address</td>
<td>alcohol</td>
</tr>
<tr>
<td>postal code</td>
<td>drug</td>
</tr>
<tr>
<td>place of residence</td>
<td>tobacco, cannabis, cocaine, heroin, speed, pills</td>
</tr>
<tr>
<td>Public Service Number (BSN)</td>
<td>gambling</td>
</tr>
<tr>
<td>sex</td>
<td>Mental health</td>
</tr>
<tr>
<td>date of birth</td>
<td>confused, bizarre behaviour, psychotic</td>
</tr>
<tr>
<td>place of birth</td>
<td>rude, aggressive, conduct disorder</td>
</tr>
<tr>
<td>country of birth</td>
<td>lethargic, sad, always tired, depressed</td>
</tr>
<tr>
<td>ethnic origin</td>
<td>cognitive impairment</td>
</tr>
<tr>
<td>SOCIAL PROBLEMS</td>
<td>Physical health</td>
</tr>
<tr>
<td>Housing</td>
<td>self neglect</td>
</tr>
<tr>
<td>independent (owner-occupier / rent contract)</td>
<td>(body mass index)</td>
</tr>
<tr>
<td>guided living (hostel / residential clinic / prison)</td>
<td>poor dental status</td>
</tr>
<tr>
<td>homeless (duration and pathways)</td>
<td>chronic pulmonary problems</td>
</tr>
<tr>
<td>due to eviction for rent arrears by tenure (social housing / private)</td>
<td>heart vessel disease / hypertension (blood pressure)</td>
</tr>
<tr>
<td>due to relationship problems leaving a home or being sent away</td>
<td>cirrhosis of the liver</td>
</tr>
<tr>
<td>due to (eviction for rent arrears during) stay in prison</td>
<td>HIV, Hepatitis B, Hepatitis C, tuberculosis</td>
</tr>
<tr>
<td>due to eviction for nuisance / behaviour</td>
<td>cancer</td>
</tr>
<tr>
<td>due to other reasons, such as leaving an institution / clinic</td>
<td>diabetes</td>
</tr>
<tr>
<td>Income</td>
<td>epilepsy</td>
</tr>
<tr>
<td>ID-card, registration population register (postal) address</td>
<td></td>
</tr>
<tr>
<td>income from legal employment / illegal / none</td>
<td></td>
</tr>
<tr>
<td>benefits unemployment / disability / budget / financial debts</td>
<td></td>
</tr>
<tr>
<td>health insurance</td>
<td></td>
</tr>
<tr>
<td>Activities</td>
<td>UNNATURAL CAUSE OF DEATH</td>
</tr>
<tr>
<td>doubling primary school classes / drop out high school</td>
<td>overdose / intoxication</td>
</tr>
<tr>
<td>highest education level with diploma (low, middle, high)</td>
<td>suicide / homicide</td>
</tr>
<tr>
<td>work experience / daily activities / contacts police and jail</td>
<td>accident / trauma</td>
</tr>
<tr>
<td>contacts social network family / friends (name, address, phone)</td>
<td>NATURAL CAUSE OF DEATH</td>
</tr>
<tr>
<td>MORTALITY</td>
<td>heart vessel</td>
</tr>
<tr>
<td>date of death</td>
<td>pulmonary</td>
</tr>
<tr>
<td>day of the week of death</td>
<td>cancer</td>
</tr>
<tr>
<td>time of death</td>
<td>other</td>
</tr>
<tr>
<td>place of death</td>
<td>HIV / AIDS</td>
</tr>
<tr>
<td>housing status at death</td>
<td></td>
</tr>
</tbody>
</table>

To obtain an overview on vulnerable people and the dynamics between the different stages of social medical decay, a comprehensive data set should include demographics, three social domains: housing - related to settings and pathways into homelessness - income and activities; and three medical domains: addiction, mental and physical health problems; and mortality by (un)natural causes. The medical problems chosen are those in need of chronic and costly guidance and/or have a significantly increased risk of death. Guided by this social medical monitor, the amount and intensity of the problem oriented social medical care to be provided to the individual should be assessed, initiated, monitored and followed up by professionals skilled and experienced in social medical decay.
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17. Leen RML van. [The income required to provide at a social benefit service. Possibilities for simultaneous social and medical care for (recently) homeless people in Amsterdam]. GGD spreker bij de Sociale Dienst buitenwijk oostelijk deels kwartier Oost. Gemeente Amsterdam: GGD Municipal Public Health Service, May 2005. [Dutch]
Social medical care before and during homelessness in Amsterdam
Homelessness is a major public health problem for which little scientific evidence is available on how to help prevent people from becoming homeless and how to improve the health of homeless people. In Amsterdam, health professionals at the GGD* Outreach Dr. Valckenier-Practice provide social medical care to homeless people. Based on the practice experience and several data collections on the job and in addition over the last decade, this thesis explores strategies to help prevent people from experiencing social medical decay. Hence, we aim to identify:

1. What are the characteristics of people at risk of social medical decay?
2. How can we find and identify these individuals?
3. How can we help them before and during different phases of homelessness?

In order to find the answers, various phases of social medical decay were examined using five sub-questions:

1. What are the characteristics and social medical risk factors of households at risk of eviction in Amsterdam?
2. How effective is the signaling and referral system for households at risk of eviction in Amsterdam?
3. What are the characteristics, social medical problems and service contacts of recently homeless people before and during homelessness, related to their pathways into homelessness?
4. What are the characteristics, social medical problems and mortality of homeless adults visiting the GGD Outreach Dr. Valckenier-Practice?
5. What are the characteristics, social medical problems and mortality of homeless adults admitted in a shelter-based convalescence care facility in Amsterdam?

In chapter 1, in the introduction, a model is represented by subgroups of individuals who find themselves in a progressive state of social and medical decay. In the various phases, the housed at risk of eviction, the recently homeless, the long term homeless and mortality among homeless people, were examined between 1997 and 2008. Of the different study groups, point prevalence information was collected at a variety of sites and from various data sets provided by the social housing associations, nuisance control care networks, popular street hang outs, day centres, social assistance centres, emergency shelters, general shelters, a shelter-based convalescence care facility, GGD patient records, and the Amsterdam Population Register.

In chapter 2, the magnitude of evictions and the households at risk of eviction were explored. In 2003, we sought information about social services that help clients with rent arrears and nuisance, as the major causes of evictions. Based on their own client records, case workers of 12 housing associations and 13 nuisance control care networks filled out questionnaires that provided information about characteristics and social medical problems among households at risk of eviction.

In Amsterdam, over the last years, around 4 households per 1,000 rent dwellings were evicted. Among the 275 housed at risk of eviction due to rent arrears, the majority were single living men, in their late thirties, and of Dutch and Surinamese / Netherlands Antillean origin. More than half experienced social problems, a quarter reported medical problems, and it was found that drug addiction problems significantly increased the risk of eviction.

Among the 190 housed at risk of eviction due to housing related nuisance, it was found that most were single living, and they were in their late thirties. One third had also financial mismanagement issues, two thirds had addiction problems, and one third had mental health issues. Financial mismanagement was a significant risk factor for eviction. Among all households in this study information on physical problems was most likely underreported. In response to the findings above outlining the characteristics of those most threatened by rent arrears and/or nuisance, services should reach out and offer integrated social and medical care.

In chapter 3, the effectiveness of the signaling and referral system for households at risk of eviction was studied. The signaling system used to identify those who were at risk of eviction was evaluated by examining the extent of problems that were identified by the case workers for rent arrears and nuisance. The referral system was evaluated by comparing the identified problems with the assistance contacts.

For 275 households with rent arrears, housing associations reported social problems in 71%, of whom 48% were in contact with social assistance, and medical problems in 23% of whom 29% were in contact with medical assistance. House visits by housing associations resulted in a much higher identification of problems, and were associated with a reduced eviction risk. For 190 nuisance households, nuisance control care networks reported social problems in 54%, of which 13% were in contact with social assistance, and medical problems in 82%, of which 92% were in contact with medical assistance.

It was concluded that a provision driven and fragmented approach of assistance led the households in highest need, who were unable, or refrained from asking for assistance, on a pathway towards evictions. In response to the silent signal of rent arrears, housing associations should conduct more house visits to identify underlying social and also medical problems that should actively be addressed. In response to the loud signal of nuisance, despite the high occurrence of medical assistance, financial support was insufficient. Only an integrated approach can keep more people off the streets.

In chapter 4, the recently homeless were examined. To identify recently homeless adults, defined as ‘last housed lost up to two years ago and legally staying in the Netherlands’, participants were recruited on the streets, day centres and night shelters in Amsterdam. In April and May 2004, social science students conducted interviews and collected data on demographics, self reported pathways into homelessness, social and medical problems, and service use, before and after becoming homeless.

Among the recently homeless (n=120), most were single men, around 40 years old, and of Dutch and Suriname / Netherlands Antilles origin. Before and during homelessness a high prevalence was reported for financial debts (on average 5,000 Euros), gambling and other addiction problems, domestic violence, and mental and/or physical health problems. During homelessness less gambling and addiction problems were reported. Forty percent of the recently homeless were homeless following an eviction due to rent arrears. Before homelessness, evictees were more often living single, belonged more often to a migrant group, and had more financial and more alcohol related problems than those who were homeless due to other reasons. Despite that four out of five evictees were having contact with debt control services, evictions were not prevented. Those who were homeless due to relationship problems (one third) reported more domestic violence and, often, cocaine problems. Before and during homelessness, contacts with services were fragmented and did not prevent homelessness. Both before and during the first phase of homelessness medical contacts were low.

* GGD (in Dutch) Geneeskundige en Gezondheidsdienst = Municipal Public Health Service.
For households with a high risk of homelessness and those in the early phases of homelessness underlying social and medical problems should systematically be identified and adequately supported by social and medical professionals. Therefore, outreach social medical care should be provided continuously before and during homelessness.

In chapter 5, long-term homeless patients were studied. Hereto, three groups of homeless patients who visited the GGD Outreach Dr. Valkenier Practice at different sites during three time periods, were studied: group A (n=364) April 1997- Nov 1999; group B (n=124) Sept-Dec 2000, and group C (n=137) Feb-May 2005. Data were systematically collected and included the personal characteristics, pathways into homelessness, the medical problems for all three groups, and the reasons for encounter and mortality for group A only.

The homeless patients (total n=625) were most commonly men, around 40 years old, and of Dutch and Surinamese / Netherlands Antilles origin. The major pathways into homelessness were relationship problems, financial debts/evictions, and after leaving prison. Between the three groups, the average length of homelessness varied from 2 to 7 years. In all groups, one quarter of the homeless patients reported alcohol dependency, one third drug dependency, one fifth to nearly two thirds reported mental health problems, and more than half reported physical problems.

In group A (n=364), the reasons for encounter primarily consisted of disorders of the skin as well as pulmonary, digestive and musculoskeletal conditions. Beside these conditions, one third presented a combination of chronic addictions, serious mental health problems and a frail physical condition (tri-morbidity). In group A, 20% (n=74) had died in the ten-year follow-up period till 2008. These homeless patients died nearly seven times more often than their housed counterparts with comparable sex and age in Amsterdam. For homeless females and those in the 18-34 age group, the figures were 13 and 18 times more likely, respectively. Multivariate analysis showed a significantly increased risk of death for individuals with problems related to HIV, alcohol addiction, asthma/COPD, drug addiction, and (univariately) for liver cirrhosis and diabetes.

It was concluded that a combination of homelessness and specific medical conditions resulted in excess mortality. With respect to homeless people entering the homeless circuit, predictors of early death should be identified and supported as early as possible.

In chapter 6, homeless patients admitted in a shelter-based convalescence care facility were studied. Hereto, data on the characteristics of ill homeless adults, underlying medical problems, referral pattern, length of stay, whereabouts after discharge, and mortality, were collected during care provision in the facility, from January 2001 and October 2007.

Among the convalescence care users (n=629), most were men, around 45 years old, and of Dutch and Surinamese / Netherlands Antilles origin. Upon 889 admissions, the physical problems primarily consisted of disorders of the skin as well as pulmonary, digestive and musculoskeletal conditions. Common chronic medical problems included addiction, mental health disorders, hypertension, HIV infection, and liver cirrhosis. The major referral sources were general hospitals and GGD drug clinics. The median length of stay was 20 days. After (self)discharge, two thirds went back to previous circumstances (streets, overnight shelter, prison; including those suspended/arrested due to misconduct), one tenth improved their housing situation (general shelter /self-discharge, two thirds went back to previous circumstances (streets, overnight shelter, prison; including those suspended/arrested due to misconduct), one tenth improved their housing situation (general shelter and/or rent home), and one fifth was transferred to a general hospital or nursing home.

By March 2008, one in seven convalescence care users (13%) were known to have died. Most were men, and aged around 50 years. Overall, the convalescence care users died seven and a half times more often than their housed counterparts with comparable sex and age in Amsterdam. Survival analysis, with correction for age and sex, showed an increased mortality risk for those with HIV, malignancy, cirrhosis of the liver, mental health disorders, and a combination of addictions and mental health problems. Over the years, fewer men were admitted with significantly more self neglect, personality disorders and cocaine use. Lengths of stay increased and less self discharge was noted during the study period.

The shelter-based convalescence care facility has been flexible and responsive to the needs of the users and services available. However, these findings reconfirm the need for early identification and support for those homeless people with a high risk mortality profile.

In chapter 7, the general discussion and conclusions, the following questions are addressed:

1. What are the characteristics of people at risk of social medical decay in Amsterdam?
2. How can we find and identify these individuals?
3. How can we help them before and during different phases of homelessness?

In the general discussion, the results of the five studies are related to the current policies and projects to support the nearly homeless and homeless people, and the responsibilities and competence of the workforce in Amsterdam. Hereto, policy documents and reports were used in regards the eviction prevention practice as offered by the Early Reach Out support networks for rent arrears (in Dutch: Vroeg Enkp, the Care and Nuisance support networks for the housed with multiple support needs (in Dutch: meldpunten zorg en overlast), and the Homeless Safety Net and case management practice (in Dutch: GGD centrale intake en veldregie voor OGGZ cliënten).

Characteristics of people at risk of social medical decay in Amsterdam

In Amsterdam, of the people at risk of social medical decay the vast majority were found to be single men, aged 25-54 years, of Dutch and Surinamese / Netherlands Antilles origin, with social medical problems. These problems concerned maintaining or obtaining housing due to financial mismanagement and/or conduct disorders that interact with medical problems of addiction, mental, and physical health (tri-morbidity). Prior to becoming homeless and throughout the different phases of homelessness, the demographic profile remained the same, and social and medical problems tended to mount until early death. A significantly increased risk of death was observed among homeless individuals with problems related to alcohol addiction, drug addiction, mental illness, dual diagnosis, HIV, malignancies, chronic pulmonary conditions, liver cirrhosis and diabetes.

How can we find and identify these individuals

In daily practice, identifying vulnerable people, their social medical profile and their pathways into social medical decay should be acknowledged. Consequently, defined warning signals of vulnerability should actively be picked up by professionals in housing, welfare, medical, correctional and homeless services. This means that professionals have to look beyond their own discipline and ‘core business’. Hereto, the workforce needs to be willing and competent to apply a systematic approach to identify their clients’ characteristics and social medical problems that mount up to evictions, homelessness and early death.
How can we help them before and during homelessness

In this thesis, among people at risk of social medical decay, before and during different phases of homelessness, medical problems were increasingly prevalent, and resulted in excess mortality. In the eviction prevention practice and the recently homeless case management practice, medical doctors seemed to play a marginal role. In the outreach care practice, doctors were most commonly involved in tackling the health issues among the long-term homeless, and including convalescence and palliative care, to reduce tri-morbidity harm in the last phases of social medical decay.

The marginal role of doctors before and during the early phases of homelessness is in concordance with the absence of the position and responsibilities of doctors in the relevant policy documents and reports. Moreover, in daily practice, in the Early Reach Out support networks for rent arrears, the Care and Nuisance support networks for the housed with multiple support needs, and the Homeless Safety Net and case management practice, medical involvement is not guaranteed, nor systematically provided. Consequently, nearly homeless and homeless people depend on the social medical skills and tri-morbidity knowledge of social and financial workers, and social (mental health) nurses.

In response to the findings above, strategies to help prevent people from experiencing social medical decay should explicit the position and responsibilities of medical doctors. Tackling the social determinants of health and the medical issues of nearly homeless and homeless people requires involvement of medical doctors in practice, education, and research.

Practice

It is recommended to integrate the Early Reach Out support services, Care and Nuisance support networks and the homeless case management networks. To integrate these networks, the GGD as the central field director could restore the fundamentals of her safety net role in the community and reposition doctors as directors in the social medical care process before and during homelessness. Hereto, doctors should actively be involved in the social medical assessment, preventive and treatment actions, consultation with and referrals to medical doctors in the community healthcare network, and reporting the individual care needs for epidemiological and financial purposes. The workout of the individual care plan and follow up should be performed in close cooperation with social nurses, social workers and administrative staff.

Education

To identify problems related to deficiencies in patients’ social support systems and knowledge of referral possibilities outside the medical system, it is recommended to integrate social medical care in the medical curriculum. A comprehensive social medical care module and residency can be developed so that medical students, and general practitioners and social medicine specialists in training, can have an active part in providing care to the nearly homeless and homeless people in daily practice.

Research

Following the results in this thesis, it is evident that an overview on vulnerable people and their unmet support needs should be obtained, regardless their setting. Much remains to be learned about how to effectively integrate and target services to find and help the most vulnerable people in preventable stages. It is essential to collect longitudinal data of the characteristics, social medical problems, and mortality, among the nearly home-
To obtain an overview on vulnerable people and the dynamics between the different stages of social medical decay, a comprehensive data set should include demographics, three social domains: housing - related to settings and pathways into homelessness -, income and activities; and three medical domains: addiction, mental and physical health problems; and mortality by (un)natural causes. The medical problems chosen are those in need of chronic and costly guidance and/or have a significantly increased risk of death. Guided by this social medical monitor, the amount and intensity of the problem oriented social medical care to be provided to the individual should be assessed, initiated, monitored and followed up by professionals skilled and experienced in social medical decay.
In Amsterdam wordt sociaal medische zorg geboden vanuit de GGD Dr. Valckenier praktijk voor dak- en thuislozen. Dit proefschrift is gebaseerd op de dagelijkse praktijk. Naast het vergroten van de sociaal medische kennis rondom dakloosheid beoogt dit proefschrift aanbevelingen te doen ter verbetering van preventie van sociaal medisch verval.

De centrale vraagstelling luidt:
1. Wat zijn de kenmerken van mensen met risico op sociaal medisch verval?
2. Hoe kunnen we deze mensen vinden en identificeren?
3. Hoe kunnen we deze mensen helpen voor en tijdens de verschillende fasen van dakloosheid?

Voor de antwoorden zijn fasen van sociaal medisch verval onderzocht aan de hand van vijf subvragen:
1. Wat zijn de kenmerken en sociaal medische risicofactoren van huishoudens met risico op huisuitzetting?
2. Hoe effectief is het signalering- en verwijssysteem voor deze huishoudens?
3. Wat zijn de kenmerken, sociaal medische problemen en zorggebruik van recent daklozen voor en tijdens dakloosheid, gerelateerd aan hoe zij dakloos raakten?
4. Wat zijn de kenmerken, sociaal medische problemen, en sterfte, van dakloze patiënten die de GGD Dr. Valckenier praktijk bezochten?
5. Wat zijn de kenmerken, sociaal medische problemen, en sterfte, van dakloze patiënten die werden opge- nomen in een ziekenboeg verbonden aan de maatschappelijke opvang?

In hoofdstuk 1 wordt een model met subgroepen van mensen die zich in een progressieve staat van sociaal en medisch verval bevinden geïntroduceerd. In de verschillende fasen gaat het om huishoudens met een hoog risico op huisuitzetting, recent daklozen, langdurig daklozen en sterfte onder daklozen. Per fase zijn op verschillende locaties door diverse medewerkers gegevens verzameld gedurende de periode 1997-2008.

In hoofdstuk 2 wordt de omvang van het aantal huisuitzettingen in Amsterdam en huishoudens met een hoog risico op huisuitzetting beschreven. In 2003 zijn alle Amsterdamse woningcorporaties (voor huurschuld) en alle meldpunten overlast (voor overlast) benaderd. Aan de hand van gegevens uit eigen dossiers hebben de medewerkers vragenlijsten ingevuld over de kenmerken en sociaal medische problemen van de huishoudens voor wie een huisuitzetting dreigde.

In Amsterdam vonden de afgelopen jaren rond de 4 huisuitzettingen per 1000 huurwoningen plaats. Van de 275 huishoudens met huurschuld was de meerderheid alleenstaande man, van Nederlandse en Surinaams/Antillaanse origine, en rond de veertig jaar oud. Voor meer dan de helft werden sociale problemen (financieel mismanagement en/of inkomensdaling) gerapporteerd en voor een kwart medische problemen (verslaving, psychische en/luchtelijke aandoeningen). Wanneer drugsproblematiek werd gerapporteerd bleek er een significante verhoogd risico op huisuitzetting. Van de 190 overlasthuishoudens was de meerderheid alleenstaand en tegen de veertig jaar oud. Over de etnische achtergrond waren geen gegevens beschikbaar omdat de meldpunten deze niet registreerden. Voor een derde werd financieel mismanagement gerapporteerd, voor twee derde verslaving en voor een derde psychische problemen. Financieel mismanagement toonde een significant verhoogd risico op huisuitzetting.

Voor huishoudens met een hoog risico op huisuitzetting dient men de kenmerken en sociale medische problemen te identificeren en sociale en medische zorg gelijktijdig te bieden.

In hoofdstuk 3 is de effectiviteit van het signalering- en verwijssysteem voor huishoudens met een hoog risico op huisuitzetting bestudeerd. Het signaleren is beoogd naar de mate waarin sociale en medische problemen werden gerapporteerd door de medewerkers van woningcorporaties en meldpunten overlast. Verwijzingen zijn beoogd aan de hand van de contacten met de hulpverlening voor de vastgestelde problemen.

Van 275 huishoudens met huurschuld had bijna drie kwart sociale problemen waarvan bijna de helft contact met de sociale hulpverlening had. Van het kwart met medische problemen had bijna een derde contact met een medische hulpverlener. Wanneer huishoudens met huurschuld een huisbezoek kregen bij een woningcorporatie dan werden zij significant minder vaak hun huis uitgezet dan huishoudens die geen contact hadden. Van 190 huishoudens die overlast veroorzaakten had ruim de helft sociale/financiële problemen waarvoor een op de zeven contact had met de sociale hulpverlening. Voor de overlasthuishoudens schoot de financiële hulpverlening te lijf. Bij ruim vier van de vijf huishoudens die overlast veroorzaakten bleek medische problemen te spelen. In bijna allen geval was er contact met medische zorgverleners.

Ter preventie van huisuitzettingen dient men probleemhuishoudens thuis te bezoeken om sociale en medische problemen te identificeren en om hen adequate sociaal medische zorg te bieden. Een centrale monitor wordt aanbevolen om te bepalen op welke huishoudens met welke problemen men zich in het bijzonder dient te richten.

In hoofdstuk 4 zijn de recent daklozen bestudeerd. Recent daklozen (definitie: laatste eigen huisvesting tot twee jaar geleden verloren en legal in Nederland) zijn aangesproken op straat, in de dagopvang en nacht- opvang om mee te werken aan een interview. In april en mei 2004 hebben studenten sociologie gestandaardiseerde vragenlijsten afgenomen en gegevens verzameld over de kenmerken, de manier van dakloos raken, sociale en medische problemen, en het zorggebruik voor en tijdens dakloosheid.

Van de 120 recent dakloze personen was de meerderheid alleenstaande man, van Nederlandse en Surinaams/Antillaanse origine, en rond de veertig jaar oud. Voor en/of tijdens dakloosheid werden schulden (gemiddeld 5000 euro), gokken, huiselijk geweld, verslaving, psychische en lichamelijke problemen vaak gerapporteerd. Tijdens recente dakloosheid was het gebruik van middelen en gokken afgenomen, overige problemen bleven onveranderd. Vaak aanwezig voor dakloosheid waren de contacten met de hulpverlening gefragmenteerd en hadden niet geleid tot het afwenden van het verlies van de woning. In het algemeen waren er weinig contacten met medische zorgverleners.

Veelvuldig procent van de recent daklozen was dakloos geraakt na een huisuitzetting vanwege huurschulden. Deze huishoudens woonden vaker alleen, hadden vaker schulden en vaker alcoholproblemen dan de recent daklozen die door andere redenen dakloos waren geraakt. Voor dakloosheid had vier van de vijf huishoudens met huurschulden contact met de schuldhulpverlening en desondanks de woning niet kunnen behouden. Een derde van de recent daklozen was door relatiewe problemen dakloos geraakt. Zij rapporteerden vaak alcohol- en schuldenproblemen en vaker huiselijk geweld dan de recent daklozen die door andere redenen dakloos waren geraakt.

De onderliggende sociale en medische problemen van mensen met een verhoogd risico op dakloosheid en van hen die dakloos zijn verdienen integrale aandacht. De hulpverlening dient deze mensen actief te identificeren en hen voor en tijdens dakloosheid continu van sociale en medische zorg te voorzien.

Van het totaal aantal dakloze patiënten (n=625) was de meerderheid alleenstaande man, van Nederlandse en Surinaams/Antilliaanse origine, en rond de veertig jaar oud. De belangrijkste bronnen van dakloosheid waren relatieproblemen, schulden/huisuitzettingen en na het verlaten van de gevangenis. Tussen de drie groepen variëerde de gemiddelde duur van dakloosheid van twee tot zeven jaar. In de drie groepen rapporteerde een kwart alcoholverslaving, een derde drugverslaving, een vijfde tot twee derde psychiatrische problemen en meer dan de helft lichamelijke problemen.

In groep A waren de redenen van bezoek vooral gerelateerd aan problemen van de huid, luchtwegen, maag darmstelsel en het bewegingsapparaat. Van deze groep presenteerde een derde een combinatie van verslaving, psychisch en lichamelijke problemen (trimorbiditeit). Gedurende tien jaar na het eerste contact was een vijfde overleden (2016). Dit waren meestal mannen van rond de vijftig jaar. Zij stierven bijna zeven keer vaker dan de doornsee Amsterdammers, afgezet naar leeftijd en geslacht. Dakloze vrouwen en dakloze mannen en vrouwen tussen de 18-34 jaar stierven respectievelijk 13 en 18 keer vaker. Multivariaant analyse toonde een significant verhoogd sterftekans bij dakloze personen met HIV, alcoholverslaving, chronisch longlijden en drugverslaving. Urvanita analyse toonde een significant verhoogd sterftekans indien er sprake was van levercirrose of diabetes.

De gezondheid van langdurig daklozen was slecht, met voortijdig overlijden als eindpunt van sociaal medisch verval. Ter preventie van oplopende gezondheidsproblemen dienen dakloze mensen in een zo vroeg mogelijk stadium adequaat sociaal medisch te worden begeleid, met specifiek aandacht voor personen met een verhoogd sterftekans.

In hoofdstuk 6 zijn dakloze patiënten die gebruikmaakten van een ziekenboeg verbonden aan de maatschappelijke opvang bestudeerd. Tijdens sociaal medisch werk in een ziekenboeg zijn gegevens verzameld over kenmerken, redenen van opname, medische problemen, verwijzers, verblijfsduur, bestemming na ontslag, sterfte, en trends, in de periode 2001-2007.

Van de 629 ziekenboegbezoekers was de meerderheid man, van Nederlandse en Surinaams/Antilliaanse origine en rond 45 jaar oud. Tijdens 889 opnames waren de meest voorkomende redenen van opname een overlap van problemen van de huid, luchtwegen, maag en darmen, en letsel van het bewegingsapparaat. Chronische medische problemen betroffen overwegend verslaving, psychiatrie, stoornissen van HIV en levercirrose. De meeste verwijzingen verliepen via algemene ziekenhuizen en GGD-poliklinieken voor verslavingsbehandeling. De gemiddelde verblijfsduur bedroeg 47 dagen. Na (zelf)ontslag keerde een derde terug naar de omstandigheden waaruit zij kwamen (straat en nachtopvang). Een op tien ging naar een sociaal pension, en een vijfde werd overgeplaatst naar een algemeen ziekenhuis of een voorziening voor verzorging/verpleging.

In maart 2008 was ruim een op de zeven ziekenboegbezoekers overleden (13%). Dit waren meestal mannen van rond de vijftig jaar. Ziekenboegbezoekers overleden 7,5 keer vaker vergeleken met de doornsee Amsterdammers, gemeten naar leeftijd en geslacht. Ondervooranalyse, met correctie voor leeftijd en geslacht, toonde een significant verhoogd sterftekans bij personen met HIV, kanker, levercirrose, psychiatrische stoornissen en een combinatie van verslaving en psychiatrische stoornissen.

Gedurende de studieperiode vonden per jaar minder opnames plaats, duurden de opnames langer en verlieten minder personen vroegtijdig de ziekenboeg. De laatste jaren waren vooral mannen met verwaarlozing, persoonlijkheidsstoornissen en sociale problematiek opgenomen. Door de tijd heeft de ziekenboegvoorziening zich flexibel aangepast aan de problemen en zorgbehoeften van de doelgroep en de ontwikkelingen van het totale aanbod van opvang- en zorgvoorzieningen in Amsterdam.

De bevindingen bevestigen de noodzaak om dakloze mensen met een verhoogd sterftekansprofiel zo vroeg mogelijk te identificeren en hen actief en probleemgericht sociaal medisch te begeleiden.

In hoofdstuk 7 worden de antwoorden op de centrale vraagstelling beschreven. In de discussie worden de bevindingen in de vijf studies afgezet tegen het huidige beleid en projecten in het kader van de Openbare Geestelijke Gezondheidszorg (OGGZ), en tegen de verantwoordelijkheden en competenties van de hulpverleners. Relevante documenten en rapporten zijn bestudeerd. In het kader van dit proefschrift is de aandacht specifiek gericht op de preventie van huisuitzettingen door huurschuld (Vroeg Eropaf methode), door overlast (Meldpunten Zorg en Overlast) en de case management praktijk voor dak- en thuislozen (GGD centrale veldtafel en veldregie voor OGGZ cliënten).

Kenmerken van mensen met een risico op sociaal medisch verval


Hoe kunnen we deze mensen vinden en identificeren

Hoe kunnen we deze mensen helpen voor en tijdens dakloosheid
Voor en tijdens de verschillende fasen van dakloosheid waren sociaal medische problemen toenemend aanwezig en resulteerden in vroegtijdig overlijden. In de praktijk van de preventie van huiszittingen en in de zorg voor recent daklozen speelden artsen een marginale rol. In de zorgpraktijk voor dak- en thuislozen waren GGD artsen betrokken bij langdurig en zieke daklozen die op eigen initiatief of via derden de weg naar de GGD artsen wisten te vinden. De aangeboden sociaal medische zorg, inclusief de (palliatieve) zorg in een ziekenboeg verbonden aan de maatschappelijke opvang, bereikte met name dakloze patiënten in de laatste fasen van sociaal medisch verval.

De afwezigheid van artsen in het hulpverleningsproces ter preventie van huiszittingen en in de eerste fase van dakloosheid komt overeen met de afwezigheid van de positie en verantwoordelijkheden van artsen in de relevante OGGZ beleidsstukken en rapporten. In de Vroeg Eropaf praktijk voor huurschulden, in de aanpak van de Meldpunten Zorg en Overlast en in de case management praktijk voor daklozen, is de betrokkenheid van artsen niet gegarandeerd en wordt medische zorg niet systematisch geboden. Dit betekent dat bijna daklozen en dakloze mensen afhankelijk zijn van de sociaal medische vaardigheden en kennis van trimorbiditeit van sociaal en financieel werkers, en die van sociaal (psychiatrisch) verpleegkundigen. In dit geval kan de term ‘zorgwekkende zorgmijders’ van toepassing zijn op zowel patiënten als artsen die zich onttrekken aan het verlenen van zorg aan deze groep mensen.

Op basis van de resultaten van de studies in dit proefschrift en de ervaringen uit de dagelijkse praktijk wordt aanbevolen om in het beleid ter preventie van sociaal medisch verval de rol en de verantwoordelijkheden van artsen te expliciteren voor de praktijk, onderwijs en wetenschap.

Praktijk
Voor het bieden en verbeteren van sociaal medische zorg wordt aanbevolen de Vroeg Eropaf praktijk, de Zorg en Overlast praktijk en de case management praktijk voor dak- en thuislozen integraal aan te bieden. In dit kader kan de GGD als centrale veldregisseur in de vangnetpraktijk voor kwetsbare burgers, terugvallen op haar historische fundamenten, waar artsen voor en tijdens dakloosheid expliciet optreden als regisseur in het sociaal medisch zorgproces. Artsen dienen een rol te spelen in de sociaal medische diagnostiek, het ontwikkelen van een zorgplan, het uitzetten van preventieve en curatieve interventies, het stellen van een gerichte hulpvraag, en het verzamelen van epidemiologische gegevens en voor de indicatiestelling van zorg. Voor de uitvoering van het zorgplan en het volgen van de individuele zorg is samenwerking met medische en verpleegkundigen, maatschappelijk werkers en administratieve ondersteuning noodzakelijk.

Onderwijs
Ter verbetering van de kennis over de sociaal medische zorg wordt aanbevolen om algemene onderwijs en stages daklozendoeza te ontwikkelen voor medisch studenten en specifiek voor arts-assistenten huisartsenpraktijken en sociale geneeskunde.

Wetenschap
Er is onderzoek nodig naar de kenmerken, sociaal medische problemen en sterfte onder mensen die bijna dakloos of dakloos zijn, ongeacht hun verblijfplaats. Gegevens uit dergelijk onderzoek kunnen vervolgens worden afgezet tegen de omvang, soort en de kosten van beschikbare voorzieningen, en tegen de verantwoordelijkheden en competenties van de hulpverleners. Een zogenaamde Sociaal Medische Zorgschouw dient men bij voorkeur te verrichten door actieve participatie in de dagelijkse praktijk.

De huidige OGGZ monitoren kunnen worden omgebouwd tot een monitor met een beter zicht op de problemen en zorgbehoefte van de doelgroep. Hiertoe kan een Sociaal Medische Monitor dienen (zie tabel 1) als een instrument voor de dagelijkse praktijk, om hulpverleners te leren hoe men een sociaal medische beoordeling kan uitvoeren en om tijdens het werk gegevens systematisch te leren verzamelen. Deze gegevens beogen het verkrijgen van overzicht op kwetsbare burgers, sociaal medische problemen en sterfte, en de wegen naar sociaal medisch verval.

Hopelijk draagt de kennis in dit proefschrift bij aan beleidsverbeteringen om kwetsbare burgers eerder te identificeren om hen de hulp te bieden die bij hun problemen past. Het siert de academische wereld wanneer men de lessen van leven en sterven op straat integraal opneemt in de zorgpraktijk, onderwijs en wetenschap. De zorg voor dakloze mensen is een academische werkplaats van de straat waardevol.
## Tabel 1  Sociaal medische monitor voor mensen met risico op sociaal medisch verval

<table>
<thead>
<tr>
<th>demoografie</th>
<th>sociale problemen</th>
<th>medische problemen</th>
</tr>
</thead>
<tbody>
<tr>
<td>naam</td>
<td>onafhankelijk (eigenaar-bewoner / huur contract op naam)</td>
<td>verslaving</td>
</tr>
<tr>
<td>adres</td>
<td>begeleid wonen (pension / kliniek / gevangenis)</td>
<td>alcohol</td>
</tr>
<tr>
<td>postcode</td>
<td>dakloos (duur dakloosheid en bron)</td>
<td>drugs (tabak, cannabis, cocaïne, heroïne, speed, pillen)</td>
</tr>
<tr>
<td>geboortedatum</td>
<td>huisuitzetting door huurschuld (sociale sector / privel sector)</td>
<td>gokken</td>
</tr>
<tr>
<td>geboorteplaats</td>
<td>relatiesproblemen, weggestuurd of zelf vertrokken</td>
<td>Geestelijke gezondheid</td>
</tr>
<tr>
<td>geboorteland</td>
<td>huisuitzetting door ondervoordeken (sociale sector / privel sector)</td>
<td>psychotisch, verward, bar</td>
</tr>
<tr>
<td>Burger Service Nummer (BSN)</td>
<td>overige redenen (verlaten van een kliniek)</td>
<td>bruil, agresief, gedragstoornis</td>
</tr>
<tr>
<td>etnische origine</td>
<td>inkomten</td>
<td>lethargisch, altijd moe, somber, depressief</td>
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<td>Lichamelijke gezondheid</td>
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<td>gehechte problemen</td>
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<td>chronische problemen longen</td>
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<td>hart vaat ziekten / hoge bloeddruk</td>
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<td>lever cirrose</td>
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<td>diabetes</td>
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<td>epilepsie</td>
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## Tabel 1  Sociaal medische monitor voor mensen met risico op sociaal medisch verval

- **DEMOGRAFIE**
  - naam
  - adres
  - postcode
  - woonplaats
  - Burger Service Nummer (BSN)

- **SOCIALE PROBLEMEN**
  - Onderdak
    - onafhankelijk (eigenaar-bewoner / huur contract op naam)
    - begeleid wonen (pension / kliniek / gevangenis)
    - dakloos (duur dakloosheid en bron)
  - relatiesproblemen, weggestuurd of zelf vertrokken
  - huisuitzetting door huurschuld (sociale sector / privel sector)
  - overige redenen (verlaten van een kliniek)

- **MEDISCHE PROBLEMEN**
  - Verslaving
  - alcohol
  - drugs (tabak, cannabis, cocaïne, heroïne, speed, pillen)
  - gokken
  - Geestelijke gezondheid
  - psychotisch, verward, bar
  - bruil, agresief, gedragstoornis
  - lethargisch, altijd moe, somber, depressief
  - kognitieve doorzakken / beperkte intelligentie
  - Lichamelijke gezondheid
  - zelfverwaarlozing (body mass index)
  - gehechte problemen
  - chronische problemen longen
  - hart vaat ziekten / hoge bloeddruk
  - lever cirrose
  - diabetes
  - epilepsie

## Bibliography

Een overzicht op kwetsbare burgers en de dynamiek tussen de verschillende fasen van sociaal medisch verval bevat de volgende gegevens: demografie, drie sociale domeinen: onderdak - in relatie tot de setting en de wijze waarop mensen dakloos raken -; inkomten en bezigheden; drie medische domeinen: verslaving, geest en lichaam, en sterfte naar (on) natuurlijke doodsoorzaken. De medische problemen zijn gebaseerd op problemen welke chronische en kostbare begeleiding vergen en waarvan een significant verhoogd sterferisico bekend is. Bij de individuele toepassing van deze sociaal medische monitor in de praktijk dient de omvang en intensiteit van de in te zetten sociaal medische zorg te worden beoordeeld, ingezet, geregistreerd en gevolgd door professionals met kennis en ervaring met sociaal medisch verval.
Dankwoord

Aan het eind van mijn eerste werkdag bij de GGD moest ik huilen. Op het spreekuur zagen we diverse ver- slaafde patiënten met voor mij ongekende stapels ellende. De laatste was Ron, een jongeman van mijn eigen leeftijd. Zijn moeder slikte anti treurpillen, pa nam een slok en gaf klappen. Na een mislukte middelbare school, iets te stoere vrienden en een jaar in de brandweer, was hij dakloos, had geen inkomen en was verslaafd aan hero- ine, cocaïne en pillen. Ron had schoofknie, zijn tanden waren zwarte stompjes, hij was besmet met HIV, er zat een schimmel in zijn slokdarm, en hij had nog kanker in zijn ballen ook. Onder eigen dak vroeg ik me reddeloos af hoe ik deze diep beschadigde mensen ooit zou kunnen bijstaan.

Gelukkig kon ik terugvallen op de basis.


Hier ligt mijn passie voor armoede en ongezondheid, en de daklozenzorg in het bijzonder.


Om betere zorg te kunnen verlenen bleef ik in de dagelijkse praktijk vragen stellen en gegevens verzamelen. Ook legde ik mijn oor te luisteren bij betrokken professionals die hun sporen hebben verdiend in de praktijk en wetenschap. Deze mensen die een bijzondere rol hebben gespeeld tijdens mijn loopbaan en bij de totstandkoming van mijn proefschrift wil ik bedanken.

Curriculum Vitae

Curriculum Vitae

Igor van Laere was born on March 8, 1965 in Nijmegen, the Netherlands. He completed his secondary school at the Jacob-Roelands Lyceum in Boxtel in 1984. He started his medical studies at the University of Amsterdam and obtained his medical degree in 1992. During his studies he did a nursing practice at the Elisabeth Hospital in Curaçao, an elective paediatric cardiology at the University of California San Francisco, and conducted a malaria study at Our Lady’s Hospital Chilonga in Mpika, Zambia. In 1992 his medical career started with a housemanship internal medicine at the Catharina Hospital in Eindhoven and the Andreas Hospital in Amsterdam. In April 1995 he started to work for the GGD Municipal Public Health Service in Amsterdam, at the Drug department providing harm reduction healthcare to opiate users. Two years later he joined the GGD Ambulatory Medical Team to provide outreach social medical care to homeless people in the streets and almshouses in Amsterdam. Between 1998 and 2000 he studied social medicine at the Netherlands School of Public Health in Utrecht and the Erasmus Medical Centre in Rotterdam and obtained a degree as a Public Health Medicine Specialist. From 1999 to 2003 he was an active member at the National Platform for Homelessness Research, chaired by professors Paul Heydendael en Judith Wolf. Between 2005 and 2007 he was a board member of the Dutch Association of Addiction Medicine (VVGN). In 2006 at the International Conference on Urban Health in Amsterdam, he organised a Doctors for Homeless Workshop, in cooperation with his soul mates Dr. Jim Withers, Street Medicine Institute Pittsburgh USA, Dr. Jim O’Connell, Harvard University Boston Health Care for the Homeless Program USA, and Dr. Angela Jones, Oxford University UK. He has been active in international networking to unite people in practice, education and research tackling homelessness and ill health. In 2007, in cooperation with Dr. Angela Jones and the European Federation of National Organisations Working with the Homeless (FEANTSA) in Brussels, he initiated and founded the European Network of Homeless Health Workers (ENHW). With the support of Rotary Club Amsterdam Nachtwacht he was able to set up the Doctors for Homeless Foundation. This foundation aims to share international social medical knowledge and experience for those in highest need. After the public defence of his academic thesis early 2010, with his wife Jolanda and son Luuk he will move to Indonesia to share social medical lessons in Bandung.