Medische consumptie in de huisartspraktijk op Urk
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Summary

Low referral rates for a considerable number of years among publicly insured Urk residents were the reason for setting up this study.

Urk is a former island in the IJsselmeer, a lake in the central part of the Netherlands. Chapter 1 describes the history of Urk, the population characteristics and mentality and its health care facilities.

Studying literature on the subject (chapter 2) resulted in an analytical model and the conclusion that an extensive inventory of the health condition (self-reported by the population), care demand (GP consultation), use of care (number of consultations and subsequent interventions) and factors that influenced the population and the GPs as for care demand and use of care, was worth doing. The Dutch national survey of general practice (1987-1988) would provide the tools and could serve as reference.

The consequences are explained in chapter 3: a questionnaire among (a sample of) the population, a questionnaire among GPs, and registration of all consultations and interventions in the GP practices for a period of three months. The registration is episode-orientated, an episode being a number of consultations for the same health problem. Questionnaire data of the population sample about use of care, health condition, determinants of health and attitude were compared with the figures of the Dutch national survey or with figures of the Central Bureau for Statistics or with both. Consultation registration data about care demand and use of care in the GP practice were standardized per practice as for the Dutch population structure (age and gender). In order to limit the consequences of diagnostic inter-doctor variation for the comparison between Urk and the Netherlands as much as possible, diagnoses were clustered to an advanced level. Differences between Urk and the Netherlands were only tested in 20 or more episodes in Urk. The data collection for the study took place in the autumn of 1991.

Population

Chapter 4 presents the use of care of the population and population factors that influence use of care.

- Use of care, as reported by the population

Questionnaire data show that in Urk the GP consultation rate is a little below and the specialist consultation rate is considerably above the Netherlands consultation rate; the number of hospital admissions is about the same. The youngest age category (15-24 yrs) however deviates a little and has a comparable level as for GP and specialist consultations; the percentage of hospital admissions scores relatively high, even though the difference is not significant. The number of consultations of alternative healers does not deviate to any extent. The percentage of the population that has been prescribed medicine(s) (in the previous 4 weeks) is (somewhat) higher in Urk than nationally.

- Factors that influence use of care

The self-reported health condition of the Urk population scores a little below the Dutch average. The percentage of the population with complaints/‘every-day illnesses’, chronic diseases (varicose veins, haemorrhoids, hypertension in particular), psychological complaints (stress), trauma’s is higher in Urk. Mental health and absence due to sickness score more or less on the same level. The population of Urk does not much appreciate the influence they themselves, the GP and chance have on their health (health specific control orientation). The largest deviation from the Netherlands is found in the orientation on chance, the smallest deviation in the orientation on the GP; the variations are smallest in age category 15-24 yrs.
Compared to the sample population of the Dutch national survey there is a lower tendency to turn to medical advice for every-day illnesses.

A large majority of the population of Urk indicates that in case of psychosocial problems one turns for help to the church elder or deacon. Relevant questions were only asked of the Urk population. Appreciation of the accessibility and the informative and communicative attitude of the GP scores the same in Urk and in the Netherlands. A large majority of the population of Urk approves of the referral and prescription behaviour of their GPs. The Urk population indicates somewhat more often that referral to a specialist is done too easily (!). They also indicate more often that they would have wanted their GPs to prescribe a medicine.

**Care demand**

In Chapter 5 the care demand is mapped (consultation registration data). The (total) care demand for Urk GPs and the Netherlands GPs varies as for volume and distribution for diagnosis. The total number of episodes in Urk is 4% higher than the Dutch average; without pregnancy problems the difference is 1.2%.

The care demand in Urk is larger for most chronic diseases (especially for diabetes, thyroid diseases, heightened cholesterol level, gout, eczema, psoriasis, cardiac failure, and back complaints), for most trauma’s (of the locomotive system, skin, eye), some infections (erysipeloid, ear infections, ureter infections and candida infections of the female reproductive organs), psychological complaints, hypochondria.

The care demand in Urk is smaller for ‘complaints’, respiratory infections, some chronic diseases (hypertension, ‘irritable bowel syndrome’, ‘mouth diseases’). The Urk GPs have a lot fewer registrations of ‘no disease’ than the average Dutch GP.

Overall there is a somewhat larger care demand in Urk, with fewer complaints and more trauma’s, chronic diseases, psychological complaints and pregnancies.

**Use of care**

Chapter 6 contains an inventory of the use of care and the differences between practices in Urk and in the Netherlands (consultation registration data).

- **Contacts**
  
  The number of GP contacts is lower in Urk (also among adolescents aged 15-24); the number of surgery contacts is lower, the number of contacts by phone is higher. Women of reproductive age and elderly people have more consultations, the other categories fewer. Surgery hours are visited more only by women of reproductive age; fewer by the other categories. Women of reproductive age and elderly people score higher on GP home visits, the other categories lower. The number of contacts by phone scores higher in all categories in Urk, both in women and men.

  The number of contacts with the GP assistant is much higher, mainly due to repeat prescriptions. The number of contacts for repeat medication is higher in Urk.

- **Interventions**

  Medical technology treatment, medication treatment, primary care referrals (physiotherapy, dietician, alternative healer, mother’s helper and ‘other primary care workers’) have a higher prevalence in Urk, treatment with interview and advice a much lower prevalence.

  Diagnostic medical examination in the practice has a higher prevalence, externally requested diagnostic medical examination a lower one with the exception of echoscopic and endoscopic examinations, which have a higher prevalence.

  Consultations with primary care workers and specialists have an equal prevalence.
The referral rate in Urk is 14.5% lower than the national rate. The referral rate is lower for most specialisms, especially for (the cluster) ‘internal specialisms’, ophthalmology and dermatology, and, to a lesser degree for E.N.T., paediatrics and neurology; the referral rate is higher for gynaecology/obstetrics and for rehabilitation medicine. The Urk referral rate ‘psychiatry/mental health’ is 50% lower than the national referral rate; the Riagg (Regional institute for ambulant mental care) in particular has a much lower referral rate.

**Referral rate for diagnosis**

Chapter 7 studies the referral rate on diagnosis level.

The Urk referral rate is significantly below average in most complaints, most infections (respiratory and skin complaints in particular), most chronic diseases (mouth diseases, irritable bowel syndrome (IBS or ‘spastic colon’), ‘other intestinal diseases’ (excluding IBS), refraction disorders, cardiac failure, back complaints, some sorts of tendonitis/bursitis, asthma / COPD, eczema, epidermal cysts/ingrown nails, psychological diseases (‘complaints’ and depression in particular), social problems (relationship problems in particular), cancer (not of the skin), benign skin growths, family planning excluding pill use, and the cluster ‘no disease / birth’.

The referral rate in Urk is significantly higher than average for fractures, ear infections, some eye infections, chronic eye diseases (excluding refraction disorders), hypertension, arteriovascular diseases, chronic diseases of the locomotive system (arthrosis in particular), chronic diseases of the female reproductive organs, chronic diseases of the male reproductive organs, pregnancy, hypochondria (for cardiovascular diseases).

Without ‘pregnancy’ the total referral rate is 17.8% lower than the national rate.

- **Referral rate and care demand**

  The effect of the difference in volume (prevalence) of the care demand on the referral rate is presented by means of a correction. The smaller care demand for most complaints, respiratory infections, refraction disorders and cancer (non-skin) leads to significantly lower referral rates. The larger care demand for trauma’s (locomotive system, eye, skin), ear infections, some chronic diseases (eye, stomach/gullet diseases, cardiac failure, arthrosis, diabetes), pregnancy, hypochondria leads to significantly higher referral rates. The difference in total care demand does not have a significant effect on the Urk referral rate; with ‘pregnancy’ excluded from the comparison the effect is significant: 3.4% lower than the national rate.

- **Referral rate and task execution**

  Referral to the specialist is part of the GP’s work (or rather task execution). The referral rate after correction for difference in prevalence of the care demand (the net referral rate) is the result of the task execution in Urk. And as such a difference between the net referral rate and the Dutch referral rate is the result of the difference in task execution between Urk and the Netherlands.

  The net referral rate in Urk scores lower for a broad range of complaints and diseases than the national referral rate: by far the most diagnoses and clusters in complaints, trauma’s, infections, chronic diseases, psychosocial problems and pregnancy. For a number of complaints and diseases the net referral rate is higher than the national one: some complaints, fractures, some eye infections, some chronic diseases and cancer. For the total care demand the net referral rate in Urk scores significantly lower than the Dutch referral rate (14.4%). The difference does not alter with ‘pregnancy’ excluded from the comparison.
Task execution per diagnosis

Chapter 8 describes the task execution of contacts and interventions per complaint or disease episode. In a total care demand similar to the Dutch care demand as regards volume and characteristic, the Urk GP indeed refers much less often to the specialist than the Dutch GP. Interventions by means of interview score even, medical-technology interventions higher, interventions with medication lower. Diagnosis within the own practice score higher, external diagnosis scores lower and consultation with primary care workers and specialists scores lower. The Urk patient scores lower on number of GP consultations; repeat contacts more often take place on request of the GP (return contacts). The Urk GP scores higher on repeat contacts than the Dutch GP. GP interventions within primary care instead of referral to the specialist are called substitution. Joint clusters with substitution by interventions through interview and joint clusters with substitution by medical-technology interventions prove to result in a net referral rate that is much lower than the Dutch referral rate. Substitution by treatment with medication respectively referral to primary care score lower on differences.

Structure factors

Characteristics of the region in which the practice is situated and characteristics of the practice determine partly the structure within which complaints and diseases in the GP practice are treated. And so these factors influence both care demand and task execution. Chapter 9 studies these structure factors.

- Regional characteristics / availability of care facilities
  Urk is a rural community in the northern part of the Netherlands. The nearest hospital is in the town of Emmeloord (13 km). Here all basic specialisms and some external sub-specialists on consultancy basis are represented; there is no open casualty department.
  The (use of care) profile of the common practices in Urk and the profile of the group practices (sub-populations) of the Dutch national survey that are classified for degree of urbanisation, distance to the hospital or region, were compared with the national profile. On most parts the profile of the practices in Urk deviates in the same direction from the national profile as the profile of practices with similar regional characteristics (rural area, hospital not in the town itself, in the northern part of the Netherlands). The Urk profile, however, shows a much stronger deviation, the referral rate to contemplative specialisms and to psychiatry/mental health in particular is much lower.
  On some parts (GP contacts by telephone and referral to primary care) the profile of the Urk practices is completely dissimilar with the profile of practices with the same regional characteristics. On these items the Urk profile deviates in the same direction from the national profile as the profile of practices with a different regional characteristic (higher degree of urbanisation, hospital close by, middle, southern part of the Netherlands).
  Urk has no midwife’s; the Urk GPs are obstetrically active just as many other rural GPs. This shows clearly in care demand and use of care by ‘pregnancy problems’.
- Co-operation, type of practice
  The (use of care) profile of the common Urk practices and the profile of groups of practices of the National survey, which are classified by type of practice, were compared with the national profile in the same way as the regional characteristic. In some parts the profile of the Urk practices deviates in the same direction from the national profile as the profile of the group practices. E.g. (more) visits, contacts by telephone, referrals to primary care, and (fewer) applications for external diagnostics. Health centres have fewer referrals to contemplative specialisms, just as Urk practices, but much less distinct. All co-operating practices have a somewhat lower referral rate to the surgical specialisms.
• Structural workload
The Urk GP, as far as the number of contacts and the number of problems per contact are concerned and despite his large practice, does not have a larger workload than the Dutch GP in a standard practice. Excluding obstetric activities, the workload is evidently lower.
The practice assistant has a higher workload than her colleagues in the Dutch standard practice. There are more contacts for repeat prescriptions anyway and probably also more ‘personal’ contacts with the patients.
• Practice organisation
Urk GPs use the telephone more and have fewer consultation hours than Dutch GPs. All Urk practices do more medical technology interventions, and delegate more medical technology interventions to the practice assistants. The processing of repeat prescriptions in Urk is done by returned packages and repeat prescriptions; the telephone is not used for this purpose.

GP factors
The GP, as much as the patient, has a great influence on the task execution.
Attitude, opinions, work appreciation and satisfaction of the Urk GPs were measured via the GP questionnaire of the National Study. The results were compared with those of the Dutch national survey. Due to the small Urk group (5 GPs) the differences can only give an impression. Chapter 10 describes this impression.
• Attitude and opinions
Possibly Urk GPs are more than average willing to take risks. As for dealing with uncertainty they tend to consult colleague GPs more than average and to show uncertainty to the patient and consulting a specialist below average.
Urk GPs do not have a different task conception as far as diagnostics and therapy, somatic and psychosocial aspects are concerned. They feel just as competent in the somatic field, but do seem to be a little surer of themselves about medical technology interventions.
Urk GPs have a more positive attitude towards contacts and consultations with the specialist. They do not as much appreciate payment as a condition for consulting the specialist and for shifting tasks towards the GP. They have a broader task conception and a broader task execution than the average Dutch GP.
Urk GPs do not value their influence on the situation of the patient very highly. Still, their influence on (change of) the patients themselves and their own situation, they value relatively high.
• Work appreciation and satisfaction
The Urk GPs seem to experience negative feelings (such as doubts or frustration) in their regular work less often, whereas in other activities than consultation hours and visits they experience a feeling of challenge more often and a feeling of lack of time less often.
Possibly they possibly more satisfied with the possibilities for contacts with other GPs and with their income, and more satisfied with the available time for further education. They seem more dissatisfied with the available time per patient and with the time they have to invest in their practices.
Conclusions and recommendations

Conclusions:

• Difference in care demand structure does contribute to the lower referral rate in Urk, but the influence of task execution is much higher.
• The task execution in Urk is more appropriate than in the Netherlands in general.
• The use of care in Urk can roughly be explained by the specific task execution and care demand.
• Genetic factors, life style, religion and attitude towards health and health care facilities of the Urk population explain the relatively large and serious care demand for the greater part.
• The attitude of the Urk population contributes significantly to the (higher) appropriateness of the task execution.
• Regional factors play an important part in the explanation of the use of care in Urk.
• The co-operation in Urk has a favourable influence on the appropriateness of the task execution in a number of diseases. In general the conclusion can be that certain aspects of the practice execution (intensive co-operation, relatively low structural workload and efficient organization of the practice) heighten the chance of a qualitatively good GP care and (consequently) the chance of an appropriate task execution.
• The GPs have an attitude that influences the running of the practice and therefore the task execution favourably.

Discussion and recommendations:

Material and method

In the broad, inventory study in Urk no in-depth study could be done into certain factors that influence the use of care, not with the available manpower and facilities.

The consequence of the choice of the Dutch national survey for method and reference was, amongst others, that the registration period was short. This resulted in limitations, e.g. in studying chronic diseases and the intervention ‘return consultation’.

Data of the Urk study were compared with data of the National survey that was done 4 years previously. This can be defended, taking into consideration some alterations mentioned. The group of GPs in Urk being small, results in limitations for the interpretation of some differences. Attitudinal figures provide at most an impression. The strong clustering of diagnoses, necessary for restricting the influence of diagnostic inter-doctor variation, restricts the interpretation of differences in use of care. Differences in setup and execution of the questionnaire among the population have made the comparability more difficult and more restricted. The intention to involve the reference figures from published data of the National survey as much as possible, has resulted in some limitations. In addition, some reference figures could not be obtained.

The study was done in 1991. In general it can be said that important factors such as attitude of the population and attitude of the GPs have probably not essentially changed since 1991. Co-operation and practice organization have resulted in extension and improvement of the care supply from the side of the GP. Certain secondary care facilities are at a greater distance now. In Urk there are still fewer referrals to specialists than elsewhere in the Netherlands. The attitude of the Urk population deserves further research, especially with regard to the influence of religion and social networks. Research into task execution should present a good view on the consultation, especially on the communication and the expectations of patient and doctor, but also on the work style of the GP. For a good comparison of the care demand, task execution and use of care on diagnostic level a computer-
ized system for diagnosis classification should be used, with a smart thesaurus, clear inclusion criteria and criteria for beginning and end of the episode. It would also be wise to use trained GPs. Finally, a longer registration period would be necessary, e.g. 1 year; automation makes that very well possible now. In the second Dutch national survey (2001) a number of these conditions have been fulfilled.

- **The population of Urk**
  The care demand is relatively serious in Urk, especially where cardiovascular diseases and their risk factors are concerned; it seems that the population is taking this too lightly. Urk has a very high level of volunteer aid; when those volunteers can’t cope anymore, immediate and adequate assistance is needed. Timely reporting towards the regional indication committees is important because of the scarcity of care.

- **Urk GPs**
  Care demand and attitude of the population present the Urk GP with good insight in the natural course of diseases and induce towards taking the patient seriously, but not towards defensive intervention. The Urk GP must develop extra attention and intervention where risk factors and chronic diseases are concerned. Improvement of co-operation and practice execution needs to be worked for continually. Supply of information and communication with the practice population are important points of focus.

- **GP education**
  This study is about the daily work of the GP and about the many factors that influence that daily work. It is about care demand and task execution, in all aspects. The points of focus that are operative for Urk GPs, are also operative for GPs who are still in education and so for the education itself.

- **Authorities and insurers**
  Authorities and care insurers have in their policy not contributed positively to the limitation of the use of care in Urk at the time of the research. When the government intends to promote a restricted and justified use of care, as in Urk, it will have to try to influence the population (promotion) and to stimulate GP care by offering facilities. GP care in the Netherlands is in great danger, amongst others because of increasing workload, decreasing availability of GPs and absolutely insufficient funding by government and insurer for a long number of years. In Urk as well the situation is worrying because of a growing population, a continually withdrawing secondary care, waiting lists for all sorts of care, a growing shortage of adequate practice facilities and funding, and a much diminished reservoir of GPs who can and will practice their profession full-scale, including obstetrics. Government and insurer policy meanwhile is growing to be more stimulating and facilitating. However, the consequences of long-term inadequate policy cannot be polished away easily. We will have to live with an increasing and large shortage of GPs and we will have to meet this by considerable improvement of the organization of health care and by employing many more assistant staff. GPs will have to be given the space to attend to their core business and will have to be kept from activities that can as well be done by others. That way it seems possible to create a restricted and justified use of care.