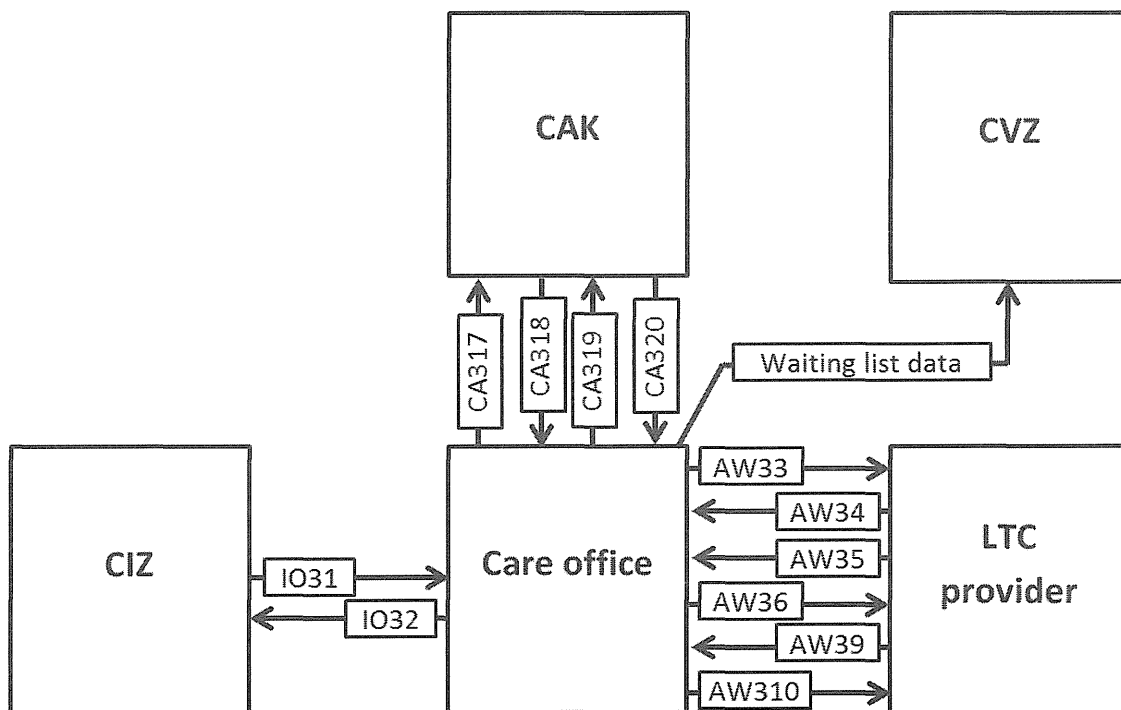


The content of the AZR-system consists only of basic client information (BSN, address, date of birth) and a record of all the coded messages that have been sent. What the AZR-system can offer to authorized administrative personnel or health care professionals is an oversight of these messages. Personnel are only authorized to see the messages that are relevant for them. For example, personnel from the CIZ can only see their sent and received messages (IO31 and IO32). CIZ employees cannot see when the long-term care provider started or ended its activities, or how high the client contribution is. As can be deduced from figure 2, authorized personnel of care offices may see all messages. Figure 2 specifies which coded messages are used. The basic content of the messages are explained below.

- IO31: The CIZ sends an indication decision to the care office. This decision comprises a kind and level of extramural care, and the time period for which the decision is valid (for example, personal care level 4, from 14/07/2011 to 14/07/2016).
- IO32: The care office sends a confirmation that the decision is received to the CIZ.

Figure 2: Coded messages in the AZR-system (Source: CVZ)



- AW33: The care office reports to the long-term care provider which kind and period of long-term care is appointed to the client.
- AW34: The long-term care provider sends a confirmation to the care office.
- AW35: The long-term care provider reports the start of long-term care provision to the care office.
- AW36: The care office sends a confirmation to the long-term care provider.
- AW39: A mutation in, or the end of, long-term care provision is reported to the care office.

- AW38: The care office sends a confirmation to the long-term care provider.
- CA317: The care office reports the start of long-term care provision to the CAK.
- CA318: The CAK sends a confirmation to the care office.
- CA319: The care office reports a mutation in, or the end of, long-term care provision to the CAK.
- CA320: The CAK sends a confirmation to the care office.
- Waiting list data: The care office sends data on waiting times of clients (the time difference between IO31 and AW33, and between AW33 and AW35). No confirmation is sent back.

2.3 Information sharing within the WMO

2.3.1 *The WMO: The role of the municipality*

The WMO is a law that aims to provide services that improve the opportunities and capabilities of citizens that are socially “disadvantaged” due to a handicap, an addiction, a mental illness, social isolation or abuse. The WMO fits into the broader aim of the government to reach social equality. This aim of social equality is reflected in WMO-policy. For example, when citizens of a municipality are unable to take a bus, for example due to a handicap, a municipality can decide to compensate other means of transportation for these citizens. This compensation is usually equal to the costs of taking a bus. Transportation costs that exceed the average bus fare are at the expense of the client him-/herself.

As mentioned in the first report, WMO provision can be categorized into nine “performance fields”. These are:

1. Social cohesion, “livability” of villages and neighbourhoods.
2. Support to youth and their parents.
3. Information, advice, and support to (potential) WMO clients.
4. Support to informal caregivers and volunteers.
5. Promotion and stimulation of societal participation.
6. Promotion and stimulation of independency.
7. Shelters and policies against domestic violence.
8. Improving public mental health care.
9. Improving addiction policies.

Unlike care or compensation for exceptional health care expenses (AWBZ), social support (WMO) is not a right. As such, municipalities are obliged to help disadvantaged people participate in society and the community, but they are essentially free to make and effectuate WMO policy. This means that the nature and quality of social support can differ between municipalities. Please see table A2.1 in the appendix for more details on the sort of support that is provided through the WMO, and how many municipalities provide these different services. An example of how client contributions are arranged differently in municipalities, can be found in 3.4.

WMO-services can be seconded to commercial organisations or other institutions. Municipalities often employ domiciliary care providers, taxi companies, volunteers, and other institutions to efficiently provide these services.

The responsibilities of the municipality regarding the WMO include:

- Setting the criteria for WMO eligibility, as well as the fees of clients' compulsory contributions. Some municipalities have stricter criteria for WMO support than others, and some municipalities demand higher contributions from their clients than others.
- Indication-setting, or seconding the practice of indication-setting to the CIZ or another qualified organization. When the municipality takes responsibility for setting indications, they must use the International Classification of Functioning, Disability and Health (ICF).
- Provision of services (provision of personal budgets and social support services in kind), or seconding of service provision to a commercial service provider.
- Handling of complaints and requests. Requests for indication-setting from a client, or someone helping the client, can be seconded to the CIZ.
- Budget decisions: Municipalities receive money through municipal taxes (mainly real estate tax) and the municipal fund, administered by the national government. The executive board of the municipality, consisting of the mayor and aldermen, allocates the municipal budget. The municipal council, elected by the municipal population once every four years, decides on the municipal policies in the broad sense, and controls whether these policies are implemented by the executive board.

In short, municipalities have two main responsibilities regarding enactment of the WMO: policy-making and policy-implementation. To improve effective implementation of the WMO, policy-makers need to know the quality of their policy-implementation, and where the current strengths, weaknesses, opportunities and threats lie. This means that policy-makers and other municipal employees need to be embedded in a policy network where outcomes and financial, technical, and ethical issues are discussed. Such a policy network consists of the executive board, the municipal council, municipal employees, third parties to which WMO-services are procured, and other institutions and municipalities. As the social support act is relatively young, the best practices in sustaining a broad and effective policy network are not yet distilled.

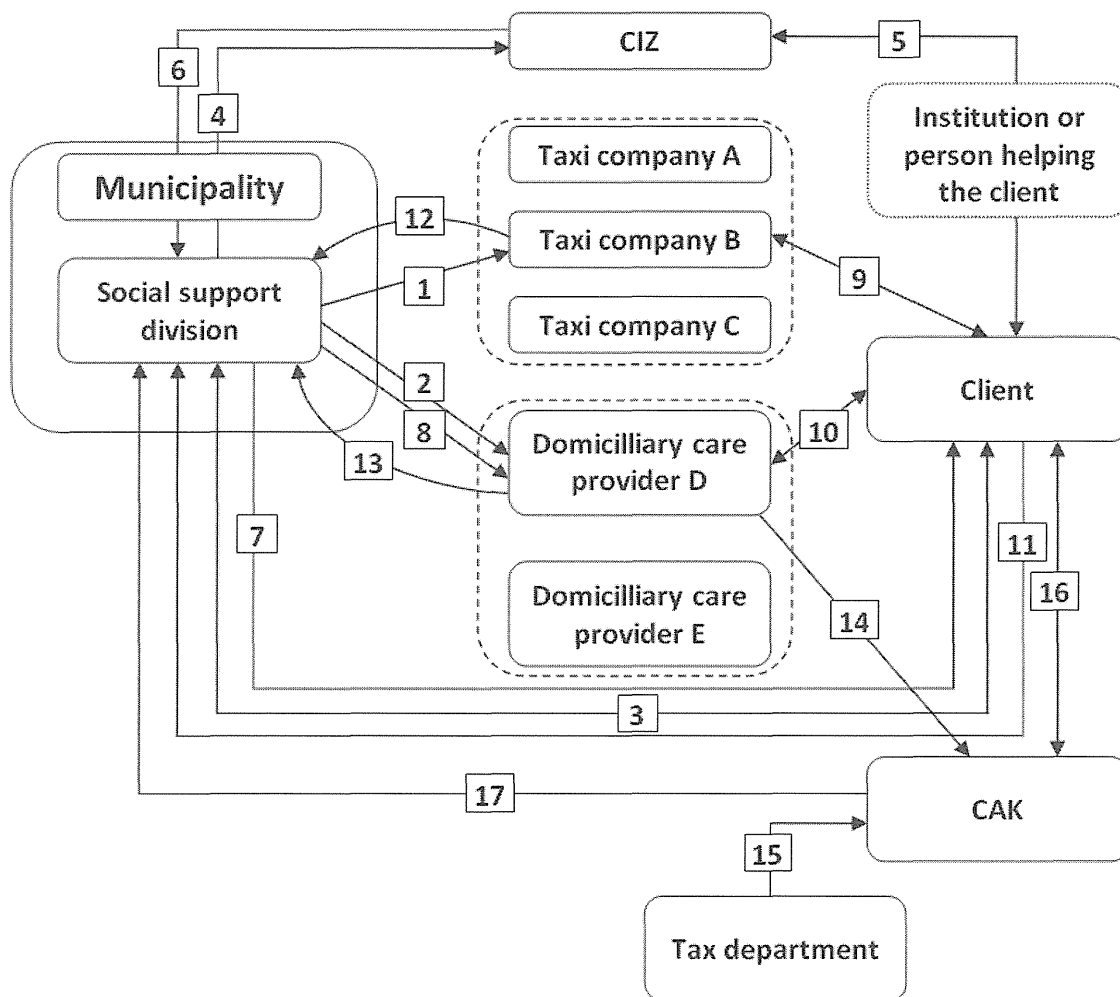
It is clear, however, that municipalities are currently faced with issues in communication and information-sharing, mainly because of the quasi-market system. This is portrayed in figure 3, where information flows in the WMO for a fictional municipality are given in the case of a client needing transportation services and domiciliary care services. Other WMO-services, such as adjustments in the house or provision of wheelchairs, are left out to keep the figure clear, but delivery of these services could be organized in a similar manner.

Implementation of WMO support is usually done by a separate division of the municipality that is concerned with implementing the WMO. For example, the municipal government of The Hague has nine major divisions:

- [1] *Governing affairs*: governance, and press information.
- [2] *Public affairs*: tax affairs, and management of different city districts.
- [3] *Urban management*: sewage, water supplies, parking, cemeteries, etc.
- [4] *Education, culture and wellbeing*: sports, culture, public health, etc.
- [5] *Social affairs and employment*: help with job applications, unemployment benefits, etc.
- [6] *Urban development*: construction and building projects.
- [7] *Public libraries*.
- [8] *Accounting*.
- [9] *Internal affairs*.

Policy-making for, and implementation of, the WMO in The Hague is at the responsibility of division 4.

Figure 3: Information-sharing between different parties in the WMO (Source: Leyden Academy)



1. The municipality negotiates a contract for transportation services in the WMO with a taxi company.
2. The municipality negotiates a contract for domiciliary care services in the WMO with one or more companies offering these services. In the example of figure 2, one company is chosen as the provider of domiciliary services in the WMO.
3. The client applies for WMO support by filling in a form from the front desk of the municipality. Most municipalities have a separate “WMO-reception”. Some municipalities offer a “digital front office”: the necessary forms can then be downloaded and send through the municipality’s website. After a request has been made, either an employee from the municipality or the CIZ will meet the client in question to assess his/her needs for social support.
4. Some municipalities second the practice of indication-setting to the CIZ. In this example, the municipalities second indication-setting to the CIZ.

5. If indication-setting is seconded, the CIZ will meet the client and assess his/her needs to set an indication. Sometimes, a friend or family-member, the general practitioner, the domiciliary care organization, or other organizations help the client with requesting for a WMO-indication. In the Netherlands, MEE is such an organization, giving advice and assistance to people with a disability.
6. After the CIZ assessed the client's situation and need for social support, the advised indication is sent to the municipality.
7. The municipality sends a letter about the indication decision to the client.
8. The municipality sends a notification to the domiciliary care company that the client is in need of services, and provides the company with the data that is further required.
9. The client calls the taxi company to agree on a time and place. The taxi company then provides transportation services for the client.
10. The domiciliary care company provides the client with basic help and household services.
11. The client might give feedback on the quality of the received WMO-services.
12. The taxi company bills the municipality for transportation services provided by him for the WMO (not all municipalities arrange client contributions for transportation services this way, also see 3.4).
13. The domiciliary care company bills the municipality for domiciliary care services provided by him for the WMO.
14. For calculating the client contribution for domiciliary care, the domiciliary care company sends client data about provided hours to the CAK. Municipalities can choose to calculate and charge the client contributions, but this is often seconded to the CAK.
15. The CAK receives information on the client's financial status from the tax department.
16. The CAK calculates the compulsory client contribution for received domiciliary care on the basis of the information from the domiciliary care company and the tax department. The CAK then bills the client for the client contribution.
17. The CAK sends the received client contribution to the municipality.

2.3.2 Information-sharing in the WMO

Multiple problems with information-sharing can take place in the communication structure of the WMO. The different problems are described below:

- A single information-sharing platform with standardized messaging is missing. This means that, for example, a municipality receives uncoordinated batches of information from the client, an indication-setting organization, and the service providers. This leads to administrative hassle. A system like AZR could lead to an improved synchronization of services, less administrative strains, and better insight to costs of social support for more organizations. For these reasons a new information-sharing platform is developed for the WMO, called GuWA. More detailed information on GuWA can be found in paragraph 2.5.
- Problems with the delivery and quality of WMO-services are not always known to the institutions involved in the WMO. This is most striking in the case of transportation services. Because of budgetary constraints, the taxi company with the lowest fares is often chosen as the proper candidate for transportation services. This can have detrimental effects on service quality: in some municipal regions, people who are dependent on the WMO for transportation sometimes have to wait hours before their taxi arrives. Municipalities or taxi companies are not always aware that clients are unhappy with service delivery, or discard this information as trivial. For this reason some municipalities are experimenting with a "regional taxi-card". With this card, the client verifies to the taxi-company that a part of the costs is compensated by the municipality.

The rest needs to be paid by the client him- or herself. This gives WMO-clients the opportunity to use their preferred taxi company, even if additional payments are required.

- Through the quasi-market system municipalities try to achieve maximum efficiency. This can lead to restraints in information-sharing. Because different service providers compete with each other, they prefer not to share information about individual clients or about ways to improve quality and efficiency of service provision.

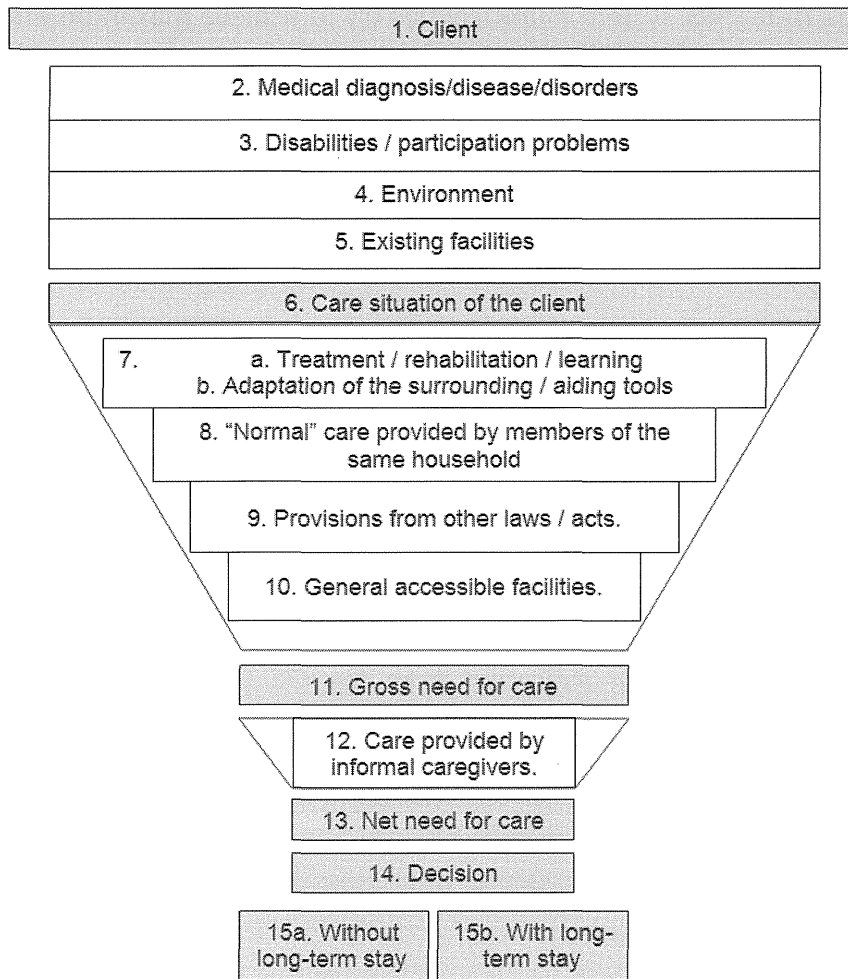
2.4 Information sharing between institutions in the ZVW, AWBZ and WMO

2.4.1 ZVW and AWBZ

The CIZ sets an indication on the basis of a funnel model. This funnel model is explained in the first report. A graphic summary of the model is depicted in figure 4 (next page). The first task of the CIZ, when making an indication decision, is to get a full picture of the client's medical status. Information about medical diagnoses, diseases and disorders that are important for developing a sound indication decision can be requested from a health care professional treating the client. The CIZ may do this only after the client has given explicit permission for this.

If a client moves from the hospital to a long-term care institution, the client essentially moves from the ZVW to the AWBZ. In this case, the client, a family member, or someone from the hospital staff may request an indication from the CIZ (with urgency or not). A CIZ employee will assess the client's situation according to the funnel model, and information from a health care professional may be required. The CIZ employee may need further information to judge the situation, in which case the client may be telephoned or visited.

Figure 4: The “funnel model” with which the CIZ estimates a client’s care needs for indication-setting (Source: CIZ).



As portrayed in figure 1, care offices mediate between long-term care providers, clients, the CIZ and the CAK. As mentioned in the first report, the health insurer with the highest market share in an AWBZ-région fulfills the duties of the care office. However, the care office branch of an insurance company may not exchange client information with the health insurance branch. This would violate privacy regulations in the medical care sector, and would give the health insurer a competitive advantage (as they can collect client information that competitors cannot). The only institutions that may share client information within the confounds of the AWBZ are the CIZ, the CAK, the care office, and the long-term care providers. As mentioned before, AZR is the information-sharing platform for these institutions.

2.4.2 ZVW and WMO

A municipality may, just like the CIZ, ask for information about a client’s medical status from a health care professional to be able to make an informed decision on an indication. The client has to give explicit permission for this. Some municipalities require all clients who request for a WMO-indication to give permission for medical information retrieval from a treating health care professional. In this case, clients have to sign for this permission in their application form.

As mentioned in point 5 in figure 3, a health care professional may assist the client with requesting a WMO indication. Experiments were also running, in which general practitioners were acting as indication-setters for WMO support, but these experiments were deemed unsuccessful. The main reason for abandoning the experiments is a conflict of interest: a general practitioner might benefit from a WMO-indication. A WMO indication can divert some expenditure for the GP to the municipality.

2.4.3 AWBZ and WMO

Currently, there is no client-level information-sharing between institutions active in the AWBZ and WMO. This has three major consequences:

1. Clients with multiple care and support needs, often have to tell the same story about their physical and personal circumstances to different institutions. Also, if a client moves from one municipal region to another, the process of requesting WMO support, setting indications and arranging support services starts all over again. If municipalities, care offices, long-term care providers, and social support providers could gain access to one database, where the CIZ reports indication decisions and the client's care and support needs, the client would only have to tell his/her story once to the CIZ.
2. Some service providers deal with multiple municipalities and care offices. This means that these providers have to deal with different ways in which indications are communicated and compensated. Because communication and billing procedures are unstandardized, service providers suffer from administrative hassle.
3. Every municipality sets its own client contribution fees. The CAK deals with many different contribution fees and arrangements, and communication between municipalities and the CAK doesn't always occur smoothly. Some clients receive numerous recalculations of the CAK because of these reasons, leading to administrative hassles to both the CAK and the clients.

A common information-sharing platform with standardized messaging is needed within the WMO. Further still, developing such a common platform for both the WMO and AWBZ could greatly reduce administrative hassles for different parties in the long-term care and social support market.

2.5 Improving information-sharing in the Dutch health care system

Figure 5 at the end of this paragraph is a graphic summary of the information-sharing flows described above. Please note that the information flows pertain only to private information on individual client level. For example, the CVZ is not added to the figure for this reason. The CVZ receives data on waiting lists from care offices (for more information, see figure 1 or 2 with explanation). These data do not comprise individual level client data, but rather aggregate levels of client data. Also, information-sharing between staff members of one institute is not depicted. For example, information exchange between specialists and nurses or administrative staff members working in the same hospital is not added to the figure. Referrals between specialists is also not depicted, since they work in similar institutions.

Figure 5 shows that the Dutch health care system has a highly bureaucratic structure. An important reason for this bureaucracy is that information-sharing is regarded as an exception, rather than a standard way of working. This means that many forms of information-sharing may not take place at all. For example, CIZ-employees would greatly benefit from access to information systems of medical care providers. This way, a CIZ-employee can quickly get a

complete picture of a client's health status. For privacy reasons, access to these systems is heavily restricted by law.

When information-sharing does take place, laws, regulations and protocols are in place to ensure that it occurs in a secure setting and all precautions have been taken. Medical care professionals need authorization, an UZI-card and a password, to access just a subset of another information system. Ways to improve efficiency of information-sharing without sacrificing the privacy of clients are discussed by policy-makers and academics in the Netherlands. The most important (possible) developments to diminish bureaucratic problems can roughly be divided in three categories, explained below:

1. *A more central role for the client, and more financial transparency for the client.* Letting the client arrange many of his/her own required services is a way to decrease information-sharing "backstage" and diminish overhead costs. In the AWBZ and WMO policies can become more oriented towards personal budgets. This way, municipalities and care offices are only concerned with paying out personal budgets and monitoring the use of personal budgets, rather than arranging all the long-term care or social support for the client.

The NZa is currently researching how the malpractice of "upcoding" by hospitals can be countered. Because health insurers only receive coded bills (DOTs), they have no insight into what treatments or tests were actually carried out. There have been reports of hospital departments finding ways to purposefully charge the wrong DOTs to receive a higher return on treatments. Upcoding can be discovered by wary clients who receive a copy of the bill from the health insurer, and find out that the bill does not match with the procedures that were actually performed.

2. *Improved system of information-sharing within the ZVW.* The introduction of the LSP or RSPs can reduce administrative hassles and delays in information-sharing between medical care providers. Also, complete digitalization of (1) patient files, (2) storage of test and scan results, and (3) communication between GP and specialists can be innovations that can decrease information-sharing issues in the near future.

3. *Improved system of information-sharing within the AWBZ and WMO, and between the AWBZ and WMO.* In the beginning of 2012, a discussion and innovation platform, called Platform IZO has been initiated by the Ministry of VWS. Besides the ministry, different organizations are involved in this project, namely: Actiz, the CAK, the CIZ, the CVZ, Federatie Opvang, the GGZ, the VGN, the VNG, and ZN. The aim of Platform IZO is to find the most important bottlenecks in information-sharing regarding the ZVW, AWBZ and WMO, and to define a common goal to improve information-sharing in the long-term. Part of Platform IZO are the following initiatives:

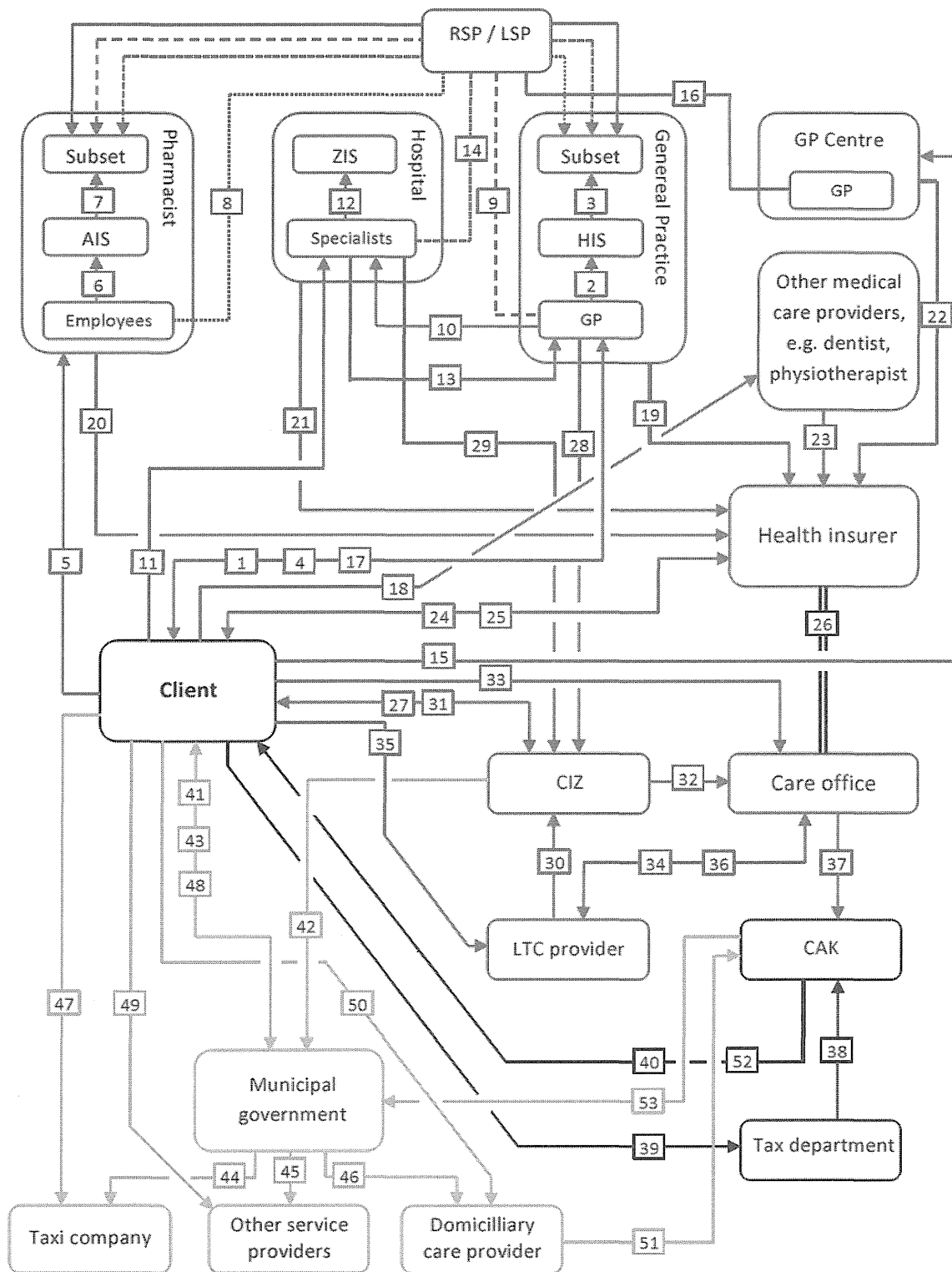
- A "think tank" called iAWBZ. In iAWBZ, health care professionals are asked to define the most important bottlenecks in the administrative burden of the AWBZ and come up with solutions. The iAWBZ has led to an update from AZR 3.0 to 3.1, in which "quick wins" were gained: messages can be simplified and may be sent less often, changing personal data from clients is simplified, LTC providers can view the initial indication-decision from the CIZ, and so on.
- Since October 2012 different organizations in the health care sector are working on an information-sharing platform for both the AWBZ and WMO. The project is called GuWA (Data exchange WMO-AWBZ), and is now in the first phase. Flows of existing platforms and flows of information- and data-sharing are now thoroughly analyzed. Possible scenario's to improve information-sharing are researched, as well as any legal restraints. As of yet, it remains unclear what form an information-sharing

- platform for the AWBZ and WMO will look like. A new system of standardized and coded messages could be developed, but it could also be possible that municipalities will be included in the AZR.
- The long-term goal from Platform IZO currently entails three ambitions for 2016: (1) more simplicity for the client, (2) less administrative burden for organizations in health care and social support, and (3) modernization of data management. They hope to achieve these ambitions by developing an information system with standardized messaging, that can be used by many organizations, while preventing misuse of this system. This way, the CIZ, the CAK, municipalities, care offices, long-term care providers, other service providers, etc. can quickly gain access to clear information for which they are authorized.

Through these measures, the different institutions and organizations hope to make gains in efficiency by reducing:

- overhead costs;
- delays in information exchange;
- hours spent on administrative tasks by health care professionals;
- frequency of uninformed decisions by doctors;
- occurrence of overlapping, similar activities done by different professionals (for example, indication-setting by the municipalities and the CIZ).

Figure 5: All possible information-sharing flows between health care institutes and/or professionals in the Dutch health care system (Source: Leyden Academy).



Flows in figure 5

1. The client visits the GP and shares information on his/her personal data, health and wellbeing.
2. New diagnoses and new treatments are stored in the HIS by the GP or assistant.
3. Important information about the client's diagnoses and treatments are stored in a separate subset of the HIS for the RSP/LSP.
4. If necessary, the GP can give the client a referral note for medication or other forms of medical care.
5. By purchasing medication and giving feedback on any side-effects, the client shares information with the pharmacist.
6. The pharmacist stores information on medication use and potential side-effects in the AIS.
7. Important information about the client's medication use and side-effects is stored in a separate subset of the AIS for the RSP/LSP.
8. If necessary, the pharmacist can check important information from the GP on the client through the RSP/LSP.
9. If necessary, the GP can check basic and crucial information on medication use and side-effects from the pharmacist through the RSP/LSP.
10. If necessary, the GP can directly refer the client to a specialist.
11. The client visits the specialist and shares information on his health and wellbeing. The hospital collects his personal data.
12. Diagnoses, treatments, and scan and test results are stored in the ZIS.
13. After the consult, the specialist sends a letter to the GP, in which he summarizes the client's visit in terms of new diagnoses, medication, test and scan results, and others.
14. If necessary, the specialist can check important medical information of the client with the GP or pharmacist through the RSP/LSP.
15. In case of emergency, or when the client's GP is unavailable, the client can visit the GP center.
16. If necessary, the substituting GP from the GP center can check important information with the GP or pharmacist through the RSP/LSP.
17. If necessary, the GP can refer the client to an allied health professional (e.g. physiotherapist or psychotherapist). The client usually receives a referral letter for this.
18. The client visits the dentist or an allied health professional and shares information on his/her health and wellbeing.
19. The GP sends individual bills to the health insurer of the client.
20. The pharmacist sends individual bills to the health insurer of the client.
21. The hospital sends individual bills to the health insurer of the client in the form of coded DOTs.
22. The GP center sends individual bills to the health insurer of the client.
23. Other medical care providers send individual bills to the health insurer of the client.
24. The client is enlisted with a health insurer. The insurer therefore has his/her personal data.
25. The health insurer may send copies of bills to the client, or charge the client with deductibles or client contributions.
26. The health insurer with the highest market share in an AWBZ region is obliged to act as the care office for this region. Legally, the health insurance branch of the company may not exchange client information with the care office branch, but this does happen in practice.
27. If the client requests an AWBZ indication, he/she shares personal data and information on his/her health, wellbeing and social surrounding with the CIZ.
28. If required for the indication, a CIZ employee can request information from the GP. The client first has to give explicit permission.
29. If required for the indication, a CIZ employee can request information from a specialist. The client first has to give explicit permission.
30. If required for the indication, a CIZ employee can request information from a current LTC provider of the client. The client first has to give explicit permission.
31. The CIZ sets an indication for AWBZ care and sends the indication decision to the client.
32. The CIZ also sends the indication to the care office.
33. The client informs the care office on his/her LTC preferences and needs.
34. The care office checks if a LTC provider is able to provide the indicated care.
35. If so, the LTC provider commences with LTC provision, collecting information on the client's health, wellbeing and personal preferences to provide the best possible care.
36. The LTC provider sends messages to the care office, containing information on the start and end of LTC provision, and possible changes.
37. These messages on the start, end and changes in LTC are forwarded to the CAK.
38. The CAK receives information on the client's financial status from the tax department.
39. The client has already shared information on his/her financial situation with the tax department by filling in tax declarations.
40. The CAK gives feedback to the client on his/her LTC use, and charges a client contribution.
41. The client applies for WMO services by filling a form, and sending it to the municipal government.
42. The municipal government can second indication-setting to CIZ. In this case, the CIZ sends an official indication to the municipal government.

43. The client receives a letter about the indication decision for WMO support.
 44. When the client is eligible for transportation services from the WMO, this is forwarded to the assigned taxi company.
 45. When the client is eligible for other services from the WMO (such as instrumental aids), this is forwarded to the assigned service provider.
 46. When the client is eligible for domiciliary care services from the WMO, this is forwarded to the assigned domiciliary care provider.
 47. Some municipalities ask the assigned taxi company to collect information on the client's use of transportation services for billing purposes.
 48. Some municipalities ask the client to collect information on his/her use of transportation services for billing purposes.
 49. When the client receives other services from the WMO, he/she shares information on service needs with this service provider.
 50. When the client receives domiciliary care services through the WMO, he/she shares information on service needs with the domiciliary care provider.
 51. The domiciliary care provider is often asked by the municipal government to share information on the client's use of domiciliary care services with the CAK.
 52. The CAK calculates the client contribution for domiciliary care services and charges the client.
 53. The collected client contribution is forwarded to the municipal government.
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3. Payment and incentives in the Dutch health care system

3.1 Payment structures and incentives

In the first report, monetary flows from different organizations in the health care system, such as clients, providers, insurers, and state institutions, were specified. Here, we go further into detail about the payment flows between or by the different parties. Of specific importance is how payment structures influence incentives. First, different payment structures are defined broadly, as well as their positive and negative effects on health care provision. Taken into account here are only economic incentives. Fortunately, many health care professionals do not have or follow such incentives.

In theory, there are four different basic payment structures. Descriptions of these payment structures are given below:

- **Capitation fee:** The health care provider is compensated for the number of clients that are assigned to him. In this structure, health care providers are not paid for services directly. The benefit is that they are not rewarded for overtreatment. A downside of this structure is that providers are stimulated to attract healthy clients, or work in regions with relatively more healthy people. Healthy people require less treatment. Providers with a higher number of healthy clients can increase their clientele (and thus their received capitation fees) while offering the same number of treatments as providers with less healthy people in their database.
- **Budget system:** The health care provider and a governing body agree on a budgetary limit of health care costs within a certain time range. Just like in the capitation fee system, providers in a budget system are not rewarded for providing unnecessary care. Providers are forced to prioritize clients. A downside to this system is that waiting lists are created.
- **Pay-per-performance:** The health care provider receives compensation for time spent on a patient, medical equipment used, and so on. The benefit of this pay-as-you-go system is that no agreements or arrangements on expenses have to be made in advance, (long) waiting lists are avoided, and providers are not stimulated to attract healthy clients. A major downside is that providers are enticed to treat, rather than to wait or decline care. This can increase health care expenditure in a health care system due to higher volume levels.
- **Bundled payments or diagnosis-related groups:** The health care provider receives compensation in the form of a standard fee for a “package of care”, based on the diagnosis and/or treatment. For example, a hospital admitting a patient with pneumonia receives a standard fee for this diagnosis. If the diagnosis seems to be incorrect, or the patient has a complex form requiring additional treatments, the bundle is changed into another bundle with an agreed fee. Some patients with pneumonia require more treatment than others, but the aim is that average cost of treatment per pneumonia patient is in accordance with the bundle fee. Overtreatment is avoided without the side-effect of increased waiting lists or patient selection. The downside is that providers are enticed to increase the volume of admittance (number of diagnoses), in combination with undertreatment. This way, increasing the number of received payments elevates turnover, and the undertreatment limits the costs. Another benefit of bundled payments is that health care providers have to make a detailed estimation of the expenses they

make per treatment for negotiation and business administration purposes. They thereby gain insight into the costs of the different treatments they offer.

3.2 Payments within the ZVW

3.2.1 From client to health insurer and medical care provider

Every Dutch citizen is obliged to have a basic health insurance package at one of the competing private health insurers. These health insurers receive their funding in different ways, which are explained below.

- Health insurers receive premium fees for the basic packages, and the additional voluntary packages, from clients above the age of 18. These premium fees are paid directly from the client's bank account to the administration office of a health insurer.
- Clients pay an income-related fee to the Health Insurance Fund (HIF). If a client is an employee, the employer deposits a percentage of the employee's income through the employer's bank account to the account of the HIF (in 2012, this is 7.1% of an employee's income up to €34,055). If a person owns a company or is a freelancer, he pays the income-related fee directly to the HIF when paying taxes. If a client's income is earned through other means, such as the AOW, private pension, divorce alimony or other, the institution providing the (social) benefit deposits the income-dependent fee to the HIF.
- Clients pay a compulsory deductible for a first amount of medical care they received. This deductible was €220 in 2012, and €350 in 2013. If medical care was provided, and the deductible, or a part of the deductible, has to be paid, the client owes this to the health insurer. In this case, the health insurer already paid the bill. This compulsory deductible is installed to deter clients from requesting unnecessary consultation or treatment. To prevent the client from avoiding decent screening and basic health care altogether, the deductible does not apply to health care received from the GP.
- For some forms of care, the health insurer will demand a contribution from the client. Client contributions in the obligatory basic health care package relate to:
 - Instrumental aids
 - Some medication
 - Maternity services
 - Patient transportation without medical staff on board
 - In-hospital childbirth without medical indication
 - Psychological therapies in the primary care sector
 - Forms of mental health care
 - Forms of dental care

Client contributions in voluntary health care packages depend on the health insurer's policy.

3.2.2 From health insurer to medical care provider

Medical care providers are compensated in different ways, as explained below:

- General practitioners receive a combination of capitation fees and pay-per-performance fees: they receive a standard amount per enrolled client four times per year, as well as a standard amount (€9) per consult. If certain treatments or special equipments are used (in the case of, for example, minor surgery, bloodtests or scans) additional compensation will be paid by the health insurer. To prevent GPs from selecting regions or clients with

low-risk profiles – to benefit financially from the capitation fee system – the size of the capitation fee per client is dependent on the client’s living area.

- Hospitals, allied health providers, dental service providers, and other medical care providers are paid by bundled payments. Since 2012, bundled payments are called DOTs. From 2006 to 2011, they were called DBCs. There are two main differences between DOTs and DBCs:
 - There were around 30,000 DBCs, some hospital specific. There are around 4,400 DOTs based on the International Classification of Diseases 10 (ICD10).
 - DBCs were billed directly. A so-called “grouper” system is used to bill DOTs. This means that providers need to record the diagnosis, tests, and treatments into a web application. The application groups these data and finds the DOT that fits these provided medical care services the best. The application “validates” this DOT. The DOT can be charged from the health insurer only after this validation.
- There are roughly two segments in the DOT-structure: (1) the A-segment ($\pm 30\%$), in which the NZa establishes the annual fee, and (2) the B-segment ($\pm 70\%$), in which health insurer and provider are free to bargain the fee. A DOT mainly exists of two parts: expenses coverage for the hospital (including personnel) and a compensation for the medical specialist. Medical specialists can be employees, or private practitioners (see next paragraph).
- The CVZ administers the HIF. Through the HIF health insurers are compensated for clients under 18 years, and clients with high-risk profiles in health care utilization.

3.2.3 From medical care provider to personnel

Health care professionals are either owners of a private practice, or hired staff members. Private practitioners receive their money directly from health insurers, and are responsible for paying the facilities, instruments and potentially staff members that are needed to provide the services. Hired staff members (usually) receive hourly wages.

In many hospitals in the Netherlands, medical specialists work as private practitioners. In Dutch, they are called “freely established specialists” (FE specialists). Specialists working in the same hospital and specialism (e.g., cardiology) can act as FE specialists under the umbrella of a cooperation. Every FE specialist is then a partner within a cooperation that is nestled in a hospital. These cooperations receive payments for medical services directly from health insurers, and profits are divided amongst the partners. Cooperations pay hospitals for using their facilities and instruments.

Currently, the use of FE specialists by hospitals is disputed in the Netherlands. The main reason is that they are said to be more expensive than their hired counterparts. Because their income is dependent on the number of treatments they perform, they might be stimulated to increase their production rate to earn more money. On the other hand, others argue that specialists might not be stimulated enough to work efficiently when they receive hourly wages.

3.3 Payments within the AWBZ

Every Dutch citizen with an income (either wages, profits, pensions or other social security benefits) pays 12.15% of his/her income up to €34,055 (2012, annually) for the AWBZ. This payment is made to the tax department of the national government. The national government transfers these finances to the CVZ, who administers the AWBZ fund. The CVZ

pays funding for PGBs to care offices. Finances that are required for care in kind are transferred to the CAK, who disperses the fund to the different health care providers.

Care offices negotiate contracts with long-term care providers (homecare organizations, care homes, nursing homes) in their region on an annual basis. These contracts state the kind, size, price and quality of long-term care that such a provider may provide in the region. Every long-term care provider receives a starting fund at the beginning of the year from the CAK, who received a payment order for this transfer from the care office. At the end of the year, the care office calculates what payments to long-term care providers are remaining, and a new payment order is sent to the CAK. The CAK calculates (on the basis of information of the tax department) the client contribution for AWBZ care. The client is obliged to pay this contribution from the first day he/she receives long-term care. In the first six months that the client receives AWBZ care, he/she has to pay the low contribution (maximum of € 715 per month). If the client was transferred from a hospital, the days/months spent in hospital count as a part of these first six months of institution. After six months, the client has to pay the high contribution (maximum of € 1773.40 per month). The client will receive a letter with information on the size and background of their client contribution. The client is usually billed every month, or the contribution is subtracted from the state pension.

The PGBs are paid by the SVB, also by order of the care office. For simplicity's sake, it is often said that care offices pay the PGBs. Clients who receive a PGB need to clarify to the care office how they spent the PGB. The SSP can help clients with requesting, administering and clarifying the use of PGBs. Client contributions for PGBs are calculated by the care offices. Client contributions are subtracted from the initial (gross) PGB, after which a net PGB is paid out.

All staff members of long-term care providers receive their income as wages.

3.4 Payments within the WMO

Municipalities receive their finances from the municipal fund from the national government and from municipal taxes. A municipality sets the budget for the WMO on an annual basis. Most often, the municipality seconded the provision of social support services to commercial organizations. Contracts with these providers are negotiated on an annual basis.

Every municipality decides whether client contributions are required, and if so, how they are calculated. Municipal workers can calculate and bill these contributions themselves, or these tasks can be seconded to the CAK. If the CAK is made responsible for administering the client contributions, the required information on service usage is delivered by the municipality or the service company and information on income is delivered by the tax department. Client contributions are usually installed for domiciliary care, instrumental aids, adjustments in the house and personal budgets. Some municipalities ask client contributions for transportation services. There are different ways in which client contributions are paid for transportation services if a commercial taxi company is involved. First, client contributions can be directly charged by the taxi company, independent of income. For example, a taxi company can charge a fee per kilometer from the municipality, charging to remaining fees to the client. Second, a municipality can pay taxi companies for all their services, calculating and charging client contributions afterwards on the basis of information provided by the taxi company. Third, clients can be asked to submit the receipts of their taxi rides to the municipality. Clients are then compensated, dependent on their income.

4. Measures to contain costs or increase efficiency

In the first paragraph of this chapter, the broad dynamics that underly the increase in health care costs in the Netherlands will be described. A more detailed analysis of trends in health care provision, efficiency and outcomes will be discussed. In the last two paragraphs, past and future changes in policy to counter the steeply rising health care costs will be discussed.

4.1 Rising health care expenditure in the Netherlands

Expenses in the Dutch health care sector are continuously on the rise. Health care expenditure is rising for many different reasons:

- *Medical innovations* increase the availability of treatments. Some illnesses and other health problems that could not be treated in the past, can be treated now. These developments are of course beneficial for clients, but increase their average expenditure levels.
- Clients are becoming *more aware and assertive* regarding their own health. In the Netherlands, clients are becoming better informed about their health status and their health risks, and are more demanding. These trends push the number of treatments upwards. Doctors are also becoming less willing to let small risks go untreated, as they also bear responsibility for negative health outcomes.
- *Population ageing*. Ageing populations are seen as a major contributor to the rise in national health care expenditure. In 2010 the Netherlands counted 16,6 million inhabitants, including 2,5 million people at age 65 and older. The Dutch bureau of statistics (CBS) estimates that the amount of people at age 65 and older will increase to 3,4 million in 2020 and 4,1 million in 2030. The total amount of the inhabitants will increase with a lower percentage: 2,6% (in the period of 2010-2020) and 2,2% (in the period of 2020- 2030). This implies that the share of people aged 65 and above increases from 15% in 2009 to 24% in 2040. When considering that Dutch people make around 72% of their individual lifetime health care expenses above the age of 65³, it becomes clear that population ageing will have an impact on rising health care expenditure in the Netherlands.
- *The Baumol effect*. This economic theory states that in the health care sector, like other public sectors, there is a steady decrease in “productivity : price ratio” if the economy is growing. Innovation stimulates economic growth as people will become more labour productive. When a worker’s productivity grows, his/her wage will increase simultaneously. The Baumol effect refers to a dynamic where employees who cannot increase their labour productivity (mainly in the public sector), demand higher wages because people who do increase their labour productivity receive higher wages. This means that health care expenditure grows due to higher wages, while the “output” – in terms of number of patients treated – does not keep up with this growth of average wages.
- *Health care reforms*. In the Netherlands, the focus has shifted from a system of state budgeting and planning to a free market system. The goal of this shift in focus is to let competition drive health care providers’ search for efficiency, and get rid of the bulk of waiting lists. On the other side, there is now an incentive for many health care providers

³ Source: RIVM

to increase their volume. For example, if a hospital is not restrained in tonsil operations by a state budget, this hospital can stimulate specialists to perform as many tonsil operations as possible to increase turnover.

- *Supply-dependent demand.* If long-term care activities are provided on a free basis through the AWBZ and WMO, people tend to arrange their informal care activities around these formal activities (see box 3 for an example). Especially long-term care and social support is highly institutionalized when compared with other countries. This means that Dutch citizens rely (at least partially) on services in health care and wellbeing provided by the government. This is a consequence of the Dutch culture, as well as the broad spectrum of available services through public means.

Box 3: An example of supply-dependent demand.

Mister A receives care from his spouse, Mrs. B. Mr. A. is in the beginning stages of Alzheimer's and has lost some of his mobility. Together with her son and daughter, Mrs. B finds out that Mr. A is entitled to domiciliary care through the WMO and extramural personal care (level 3) and nursing care (level 2) through the AWBZ. Mrs. B and her children decide to request for these formal care activities, pay a small compulsory deductible, and plan their care activities to complement the WMO support and AWBZ care for Mr. A. This way, Mrs. B. is free to spend some time away from home, and her children are not pressured to visit Mr. A.

4.2 Current trends in health care

The key variable to evaluate the effectiveness of the Dutch health care system on a macro-level is (healthy) life expectancy. Variables to measure the performance level of health care provision on a micro-level (institutional level) are, for example, health care expenditure, the average days spent in the institution, the mortality risk, and the satisfaction of patients. Examples of markers of health outcomes for older people are bedsores and fall incidents. Below trends in different variables reflecting the effectiveness (quality) and costs of the Dutch health care system are explained.

4.2.1 Macro-level: Life expectancy⁴

Life expectancy is a key demographic figure as it reflects overall mortality and can be validly compared between countries and periods. Life expectancy is a sign of the net health outcomes of current medical, societal, and political structures of all age groups. With continuing socio-economic development, life expectancy has increased spectacularly in all developed countries over the past 150 years. In 2010 the life expectancy at birth in the Netherlands is 81 years for women, and 77 years for men.

Figure 6 shows the 'best-performance life expectancy', i.e. the countries with the highest life expectancy from 1850 to 2010 including The Netherlands. A first observation is that in 1850 life expectancy in the Netherlands was far below the linear trend line. As in developed countries mortality at young and middle age has come to a minimum, differences in life expectancy are now mainly caused by mortality differences in old age. It is therefore vital to

⁴ More information can be read in the report "Dutch life expectancy from an international perspective" by D. van Bodegom L. Bonneux, F. M. Engelaer, J. Lindenberg, J. J. Meij, R. G. J. Westendorp, Leyden Academy on Vitality and Ageing 2010. Web address:

http://lava.test.yellowcat.nl/UserFiles/file/Onderzoek%20levensverwachting_okt_2010/rapport_2010__in_boek_vorm_definitief_30_9_2010.pdf

examine life expectancy at age 65, i.e. the number of years people can expect to live when they have reached the age of 65. The life expectancy in 2010 at age of 65 for women is 21.2 years and for men 18 years.

Life expectancy at age 65 (figure 7) in particular reflects outcomes of the socio-medical systems to prevent and cope with chronic, age-associated diseases. Over the past decennia, the number of years without chronic diseases is decreasing. This is mainly because chronic diseases include high blood pressure, but also because active and passive case detection is moving diagnoses to an earlier age. Added to this is the effect of the lowering of clinical thresholds of disease, often caused by available treatment (e.g. hip replacement). At least part of our longer lives is therefore exactly brought about by increased case detection and increased medical treatment of risk factors.

There are various ways to live a longer healthier life. First, it is essential to prevent chronic, age-associated diseases such as atherosclerosis, diabetes and dementia. Here is an important role for public health strategies to prevent smoking, hypertension and obesity, by improving the quality of our diet, and by increasing the level of exercise. Second, it is important that there are screening and diagnostic strategies for chronic age-associated diseases to minimize persistent complications and disabilities at the earliest time. Third, it is important to optimize the structure and finance of cure and care. The positive effects can be seen in the increase in life expectancy.