OECD

Organisation for Economic Co-operation and Development

DIRECTORATE FOR EMPLOYMENT, LABOUR AND SOCIAL AFFAIRS
HEALTH COMMITTEE

Health Working Papers

OECD Health Working Papers No. 158

Value-based payment models in primary care: an assessment of the Menzis Shared Savings programme in the Netherlands

Luca Lindner* and Arthur Hayen**

All Health Working Papers are now available through the OECD Website at
http://www.oecd.org/els/health-systems/health-working-papers.htm

JT03522636

OECD Health Working papers

http://www.oecd.org/els/health-systems/health-working-papers.htm

OECD Working Papers should not be reported as representing the official views of the OECD or of its member countries. The opinions expressed and arguments employed are those of the author(s).

Working Papers describe preliminary results or research in progress by the author(s) and are published to stimulate discussion on a broad range of issues on which the OECD works. Comments on Working Papers are welcomed, and may be sent to health.contact@oecd.org.

This series is designed to make available to a wider readership selected health studies prepared for use within the OECD. Authorship is usually collective, but principal writers are named. The papers are generally available only in their original language – English or French – with a summary in the other.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Acknowledgements

Abstract

1.   To increase value in health care, several countries have experimented with alternative payment models for general practitioners (GPs). The financial incentives that follow from these alternative payment models encourage GPs to assume (financial) accountability for the impact their treatment decisions have on other domains of health care, such as specialist care. The Menzis Shared Savings Program was initiated in 2014 by the Dutch insurer Menzis and the national primary care organisation Arts en Zorg (AEZ) and is among the first alternative payment models for GP care in Europe.

2.   The Menzis Shared Savings Program runs as a complement to the current – volume-driven – GP payment system. The associated contract holds that the two parties share the amount of realised savings in total health care expenditures for AEZ's patient population. Health care expenditures across the entire care continuum are included in the calculation of savings, also care delivered by specialists and hospitals that GPs refer their patients to. This is to incentivise AEZ and their GPs to assume accountability for the impact of their decisions on health care and spending beyond primary care. Such accountability, while it is congruent with the central role GPs play in the Dutch health care system, was lacking in the standard payment system for primary care. To measure whether AEZ has realised savings, per capita spending is benchmarked against the (casemix-adjusted) spending of a control group. In case AEZ's per capita spending is significantly lower than benchmark spending, Menzis shares the difference in spending ("savings") with AEZ. The sharing rate depends on AEZ's scores on a wide range of quality indicators. A higher score or larger improvement in quality, leads to a higher savings rate. In that way, the Menzis Shared Savings Program combines incentives for both quality and cost containment.

3.   The Menzis Shared Savings Program was independently evaluated in 2021. The impact of the Program was assessed in terms of quality and spending, using a difference-in-differences design. In this design, the spending growth of non-participating practices is used to estimate AEZ's counterfactual spending. The evaluation shows that – right after the start of the Program – spending dropped by 2% without affecting quality. This chapter is a literature review, in cooperation with the evaluators.

4.   The Menzis Shared Savings Program led to a lower volume of care, particularly in terms of referrals to specialist care, laboratory care and GP care. AEZ has implemented several interventions to realise savings. These interventions were centred around task delegation, digitalisation, increasing patient-centredness and upgrading medical equipment.

5.   Main inhibiting factors when implementing the Menzis Shared Savings Program were the fragmented nature of the Dutch health care system and the limited alignment of payment models across providers, and the billing lag (which can be up to a year for some services and complicates direct feedback of AEZ's performance). Main facilitating factors were the advanced data infrastructure in place, communication and transparency about the Program's parameters, and the Program's focus on mitigating risk and uncertainty. This strengthens financial incentives.

6.   Shared savings models – even when added as a mere complement to existing volume-driven payment models – are promising in increasing value.

Résumé

7.   Pour promouvoir des systèmes de santé basé sur la valeur, plusieurs pays ont expérimenté des modèles de paiement alternatifs pour les médecins généralistes (MG). Les incitations financières qui découlent de ces modèles de paiement alternatifs encouragent les médecins généralistes à assumer la responsabilité (financière) de l'impact que leurs décisions de traitement ont sur d'autres domaines des soins de santé, tels que les soins spécialisés. Le programme de *shared savings* Menzis a été lancé en 2014 par l'assureur néerlandais Menzis et l'organisation nationale de soins primaires Arts en Zorg (AEZ) et fait partie des premiers modèles de paiement alternatifs pour les soins de médecin généraliste en Europe.

8.   Le programme de *shared savings* Menzis fonctionne en complément du système de paiement GP actuel, axé sur le volume. Le contrat associé stipule que les deux parties partagent le montant des économies réalisées sur les dépenses totales de soins de santé pour la population de patients d'AEZ. Les dépenses de santé sur l'ensemble du continuum de soins sont incluses dans le calcul des économies, ainsi que les soins dispensés par les spécialistes et les hôpitaux vers lesquels les médecins généralistes orientent leurs patients. Il s'agit d'inciter AEZ et leurs médecins généralistes à assumer la responsabilité de l'impact de leurs décisions sur les soins de santé et les dépenses au-delà des soins primaires. Une telle responsabilité, bien qu'elle soit conforme au rôle central que jouent les médecins généralistes dans le système de soins de santé néerlandais, faisait défaut dans le système de paiement standard pour les soins primaires. Pour mesurer si AEZ a réalisé des économies, les dépenses par habitant sont comparées aux dépenses (ajustées en fonction du cas) d'un groupe témoin. Dans le cas où les dépenses par habitant d'AEZ sont nettement inférieures aux dépenses de référence, Menzis partage la différence de dépenses ("économies") avec AEZ. Le taux de partage dépend des scores d'AEZ sur un large éventail d'indicateurs de qualité. Un score plus élevé ou une plus grande amélioration de la qualité entraîne un taux d'épargne plus élevé. De cette manière, le programme de *shared savings* de Menzis combine des incitations à la fois pour la qualité et la maîtrise des coûts.

9.   Le programme d'épargne partagée Menzis a été évalué de manière indépendante en 2021. L'impact du programme a été évalué en termes de qualité et de dépenses, à l'aide d'un modèle de différences dans les différences. Dans cette conception, la croissance des dépenses des pratiques non participantes est utilisée pour estimer les dépenses contrefactuelles d'AEZ. L'évaluation montre que – juste après le début du programme – les dépenses ont chuté de 2 % sans affecter la qualité. Ce rapport est une revue de la littérature, en collaboration avec les évaluateurs.

10.   Le programme de *shared savings* de Menzis a entraîné une baisse du volume de soins, notamment en termes d'orientation vers des soins spécialisés, des soins de laboratoire et des soins de médecin généraliste. AEZ a mis en place plusieurs interventions pour réaliser des économies. Ces interventions étaient centrées sur la délégation des tâches, la numérisation, l'accent mis sur le patient et la modernisation des équipements médicaux.

11.   Les principaux facteurs inhibiteurs lors de la mise en œuvre du programme de *shared savings* Menzis étaient la nature fragmentée du système de santé néerlandais et l'alignement limité des modèles de paiement entre les prestataires, ainsi que le décalage de facturation (qui peut aller jusqu'à un an pour certains services et complique la rétroaction directe des performances d'AEZ). Les principaux facteurs facilitants étaient l'infrastructure de données avancée en place, la communication et la transparence sur les paramètres du programme, et l'accent mis par le programme sur l'atténuation des risques et de l'incertitude. Cela renforce les incitations financières.

12.   Les modèles *shared savings* - même lorsqu'ils sont ajoutés en tant que simple complément aux modèles de paiement basés sur le volume existants - sont prometteurs en termes d'augmentation de la valeur

Table of contents

TABLES

In Brief

Key findings

13.   In the Dutch multi-payer health care system based on the concept of managed competition, recent challenges, such as the rise of chronic conditions, have increased the need for better care coordination and payment systems that incentivize value over volume and new models of care delivery.

14.   In 2014, the design and implementation of a shared savings programme was initiated by the Dutch insurer Menzis and the national primary care organisation Arts en Zorg (AEZ). AEZ runs several primary care practices (PCPs) in the Netherlands, where general practitioners (GPs) provide health care services to over 200 000 patients.

15.   The shared savings programme was initially (and voluntarily) implemented in the city of Enschede in the Eastern Netherlands and covered eight PCPs, all of which were part of AEZ. Out of the 30 000 patients cared for in these PCPs, around 10 000 were insured with Menzis and thus part of the shared savings programme.

16.   An assessment of the first year of the programme indicates that the shared savings programme led to a drop of 2% in per capita health care spending for the enrolled population. A control group was used to estimate what AEZ's spending would have been, had they not participated in the shared savings programme. The impact of the programme on the quality of chronic care and prescription policy is mixed but, on average, neutral. Patient satisfaction has remained largely stable after the implementation of the programme.

1 Introduction

17.   The continuous rise in health care costs constitutes a challenge in many countries, including the Netherlands. As population ageing and the increasing prevalence of chronic conditions further exacerbate pressure on health systems, governments and insurers are exploring alternative ways to pay providers. These are expected to increase value in health, by combining incentives for both quality improvement and cost containment. The Netherlands has a multi-payer health system of managed competition, in which insurers have experimented with these types of payment models.

18.   This paper outlines the design and implementation of a shared savings model that was initiated in 2014 and still runs today. It was initiated by the Dutch insurer Menzis and the national primary care organisation Arts en Zorg (AEZ). This Program is hereafter referred to as the "Menzis Shared Savings Program" or "the Program". The Program holds that the two parties share the amount of savings in health care expenditure realised for a defined patient population, conditionally on achieving pre-defined quality targets. The insurer Menzis spends its share of savings on lowering premiums paid by patients and thereby makes its insurance plans more attractive, while AEZ invests its share in interventions that improve the value of care delivered by providers in its network.

19.   AEZ runs several primary care practices (PCPs) in the Netherlands, where general practitioners (GPs) provide health care services to over 200 000 patients. Out of these, eight PCPs were participating in the Menzis Shared Savings Program when it was first piloted. Under the Program, AEZ is rewarded for reducing per capita spending growth of patients registered with participating practices by receiving a share of realised savings. While savings are paid out to the primary care organisation and not individual GPs, cost-saving takes place on the level of PCPs. AEZ is thus further incentivised to support its GPs in making more cost-effective treatment and referral decisions. The amount of savings that is shared with AEZ depends on their PCPs' performance on several quality indicators. Providers are thus discouraged from realising savings at the expense of quality.

20.   In the Dutch health system, GPs act as gatekeepers to specialist care and constitute the first point of contact for patients. GPs further coordinate care for patients with chronic conditions who often see multiple providers from different sectors. Considering the strong role of GPs in influencing patients' care beyond primary care, health care expenditures across the entire care continuum are included in the calculation of savings, also care delivered by specialists and hospitals that GPs refer their patients to. This is to incentivise AEZ and their GPs also to take (financial) responsibility for the impact of their decisions on health care and spending beyond primary care. Such responsibility, while it is congruent with the role GPs play in the Dutch health care system, is lacking in the standard payment system for primary care.

21.   While the Program seeks to control spending and improve the quality of care for all patients registered with participating GPs, it contains several components specifically targeted at chronic care. For instance, the quality component of the model primarily rests on indicators for chronic care. Moreover, AEZ implements specific interventions for improving the coordination and quality of care for patients with chronic conditions.

22.   An assessment of the first year of the Program (2015) indicated a drop of 2% in per capita health care spending for the enrolled population compared to a control group. No impact on the quality of care and patient satisfaction was found.

23.   The Menzis Shared Savings Program is one of the first and few value-based payment models for primary care in the Netherlands and also the only one that is evaluated independently (Remers et al., 2022[1]). A limitation of this paper is that some details of the Program remained confidential. Throughout the text, we have indicated where this demands caution in interpreting the results. Another limitation is that the empirical evaluation is quite dated. Updated results are expected in 2023.

24.   This paper begins by outlining the Dutch health care and insurance system and the central role that GPs play in coordinating patients' care. Then, the governance structure and payment mechanism of the Program are introduced. The following section discusses the impact of the Program on healthcare expenditure, quality of care and patient satisfaction in the first performance year. Lastly, facilitating and inhibiting factors are discussed.

2 The Dutch healthcare system

25.　　The Netherlands has a multi-payer healthcare system based on the concept of managed competition, which was introduced with the Health Insurance Act in 2006. Insurers compete on the price and quality of care, while the government regulates healthcare by introducing several safeguards to ensure high quality and universal access. The Dutch healthcare system is thus characterised by a combination of market mechanisms and state regulation (van Kleef, 2012[2]).

26.　　All residents of the Netherlands are required to take out a standardized health insurance package ("basic health insurance") from one of several competing private health insurers. In 2022, there were 20 health insurers in the Netherlands, most of which belong to one of nine independent health insurance groups (Nederlandse Zorgautoriteit, 2022[3]). The basic health insurance plan covers a comprehensive package of curative health services that is nationally standardised and includes care provided by GPs, hospital care, prescription drugs, mental healthcare, and medical devices (Hayen, 2018[4]). Mandatory health insurance is funded through a flat-rate premium paid by patients directly to the health insurer and income-related contributions deducted through payroll. In addition, patients can take out voluntary insurance plans for services like adult dental care (Elissen et al., 2015[5]). Out-of-pocket payments are required for certain services and medicines.

27.　　Dutch health insurers are private not-for-profit companies that are regulated by the government. They are not allowed to deny coverage to people applying for the basic health insurance package. Community rating applies, meaning that all insured pay the same premiums to insurers (van den Berg et al., 2015[6]). Residents can change their health insurance plan or insurer annually. To prevent disadvantages for insurers that cover higher-risk populations, a risk equalisation system is in place which redistributes funds to insurers based on their insured' risk profiles (Elissen et al., 2015[5]) (Stolper et al., 2019[7]). In the Dutch system of managed competition, insurers negotiate with provider organisations on behalf of their insured, contract providers selectively, set prices for services and, in some cases, make agreements on various aspects of quality (Douven et al., 2020[8]) (Elissen et al., 2015[5]). Dutch insurers have considerable freedom in contracting providers and in determining associated payment models.

28.　　The Netherlands has a strong primary care system, where almost all residents are registered with a primary care physician, usually for long periods of time. GPs constitute patients' first point of contact with the healthcare system and act as gatekeepers to specialist care, which is only reimbursed in case the patient has been referred by his or her GP. GPs are also responsible for coordinating care for patients with chronic conditions. Only 4% of patient contacts with GPs result in a referral, indicating that GPs are well-equipped to deal with a wide variety of health issues (Hayen et al., 2021[9]). Most GPs in the Netherlands work in group practices, so-called primary care practices (PCPs), often alongside other primary care professionals like practice nurses or physiotherapists (Hayen et al., 2021[9]). Considering the central role of GPs in coordinating their patients' care trajectories, incentivising better referral and treatment decisions at the level of primary care can have an impact on spending beyond the primary care sector, especially for patients with chronic conditions.

29.　　In the Netherlands, primary, secondary, and tertiary care are financed through different funding streams and there is little coordination across providers. Hospital and specialist care is mainly paid through a fee-for-service like system, in terms of so-called DBCs (Diagnose behandel combinaties, 'diagnosis treatment combinations', somewhat similar to Diagnosis-Related Groups (DRGs)) and budgets (Elissen

et al., 2015[5]). GPs receive quarterly capitation fees for each patient registered with them, bundled payments for patients enrolled in chronic care programs and fee-for-service payments for patient visits and specific medical procedures (Hayen et al., 2021[9]). As the payment system for primary care includes fee-for-service payments, GPs' income is at least partly tied to the volume of services provided. More importantly, however, is that under this payment model, GPs do not bear the financial consequences of their treatment and referral decisions on other domains of healthcare. Put simply, being a 'better' or 'worse' gatekeeper, does not impact the revenue of GPs and their parent organisations, such as AEZ.

30.   While the Dutch system of managed competition has been successful in slowing down growth in healthcare spending, recent challenges like the rise of chronic conditions have increased the need for better care coordination and payment systems that incentive value over volume and new models of care delivery. More specifically, Remers (Remers et al., 2022[1]) finds that "several Dutch political parties have stated an ambition to move away from fee-for-service payments, towards payments based on outcomes and value".

31.   In the past decades, the Dutch government has already implemented several reforms and programs to improve the cost-effectiveness and quality of care, especially for patients with chronic conditions. These efforts included the promotion of alternative payment models. For instance, the Dutch government initiated a bundled payment system for chronic conditions in 2010, covering diabetes, chronic obstructive pulmonary disease (COPD) and vascular risk, to improve coordination across providers, increase adherence to medical guidelines and improve the quality of patient records (Elissen et al., 2015[5]) (Tsiachristas, 2016[10]). The government has also expressed interest in population-based initiatives for improving population health, quality of care and health spending (Elissen et al., 2015[5]) (Drewes et al., 2014[11]).

32.   Other pilot projects are run by sub-national or private actors, such as insurers, who are interested in enhancing efficiency, improving quality of care, and offering their insured better and more patient-centred services. As Remers notes (Remers et al., 2022[1]), "the decentralised nature of the Dutch system naturally aligns with a bottom-up implementation approach" and thus encourages insurers to experiment with novel payment models. Such local and insurer-led programs constitute interesting examples of innovation in payment models beyond national and government initiatives.

3 The Menzis Shared Savings programme

33.   In the Dutch healthcare system of managed competition, insurers compete over the price and quality of care – via healthcare procurement. Even though Dutch health insurers are non-profit organization, competition still ensues, because a low number of insurance enrollees (or a loss), complicates an insurer's day-to-day activities. Insurers are therefore interested in reducing unnecessary care and wasteful spending to keep their overall health expenditures low without compromising quality. Alternative provider payment models constitute one mechanism through which insurers can incentivise contracted providers to lower spending while maintaining or improving the quality of care.

34.   In 2014, the Dutch insurer Menzis initiated the Shared Savings Program in cooperation with the primary care organisation AEZ as a pilot, which is still in place today (Hayen et al., 2021[9]). This section outlines the governance structure and payment system of the Program as well as AEZ's efforts to encourage its contracted GPs to provide care more cost-effectively.

3.1. Governance structure

35.   The Menzis Shared Savings Program is concluded between the insurer Menzis and the primary care organisation AEZ. AEZ is the largest primary care organisation in the Netherlands, where GPs and their primary care teams provide healthcare services to over 200 000 patients. The Program is designed to incentivise more cost-effective and value-oriented decisions by primary care providers, to reduce healthcare expenditure along the entire care continuum. It states that the two contracting parties Menzis and AEZ share savings in total healthcare expenditure for patients registered with GPs in the eight participating PCPs.

36.   As gatekeepers, GPs' treatment and referral decisions have a significant impact on the healthcare trajectory of individual patients, and associated costs, outcomes, and experiences. In the traditional payment system, GPs, are not held financially accountable for the impact of their decisions on the care delivered by providers elsewhere. Under the Program, AEZ is rewarded for reducing *total* health spending instead and is thus held accountable for the health services that patients receive from providers elsewhere on the care continuum. Note that, in absence of a shared savings contract, any drop in healthcare expenditure to a GP's savings effort, would fully accrue to the health insurer.

37.   Savings are distributed on the organisational level, meaning that AEZ as the parent organisation is financially rewarded for reductions in healthcare spending. Individual PCPs do not gain any direct financial benefits from the contract. They are, however, otherwise incentivised and encouraged to take more cost-effective decisions, for instance through continuous consultations with AEZ on how to improve their performance, the sharing of detailed patient data, or through investments in the equipment and services of their practices by AEZ. Such value-promoting interventions are financed through the share in savings that AEZ receives through the Program. While AEZ as the parent organisation receives the share in savings, incentives following from the Program are eventually targeted at the GPs working in AEZ's practices (see Box 3.1).

38.   The Menzis Shared Savings Program creates incentives for AEZ to assist its PCPs in reducing healthcare expenditures. Compared to the traditional payment model, any shared savings are a new surplus available for reinvestment. Note that this holds for both AEZ and Menzis. As the insurer states on its website, a part of the realised savings is returned to its beneficiaries through lower premiums (Menzis, 2017[12]).

39.   Box 3.1 illustrates the institutional arrangement of the Menzis Shared Savings Program, detailing the relationship between the two contracting parties Menzis and AEZ, and the PCPs and GPs that are part of AEZ.

Box 3.1. The governance structure of the Menzis Shared Savings Program

Source: Author's compilation based on Hayen (2018[3])
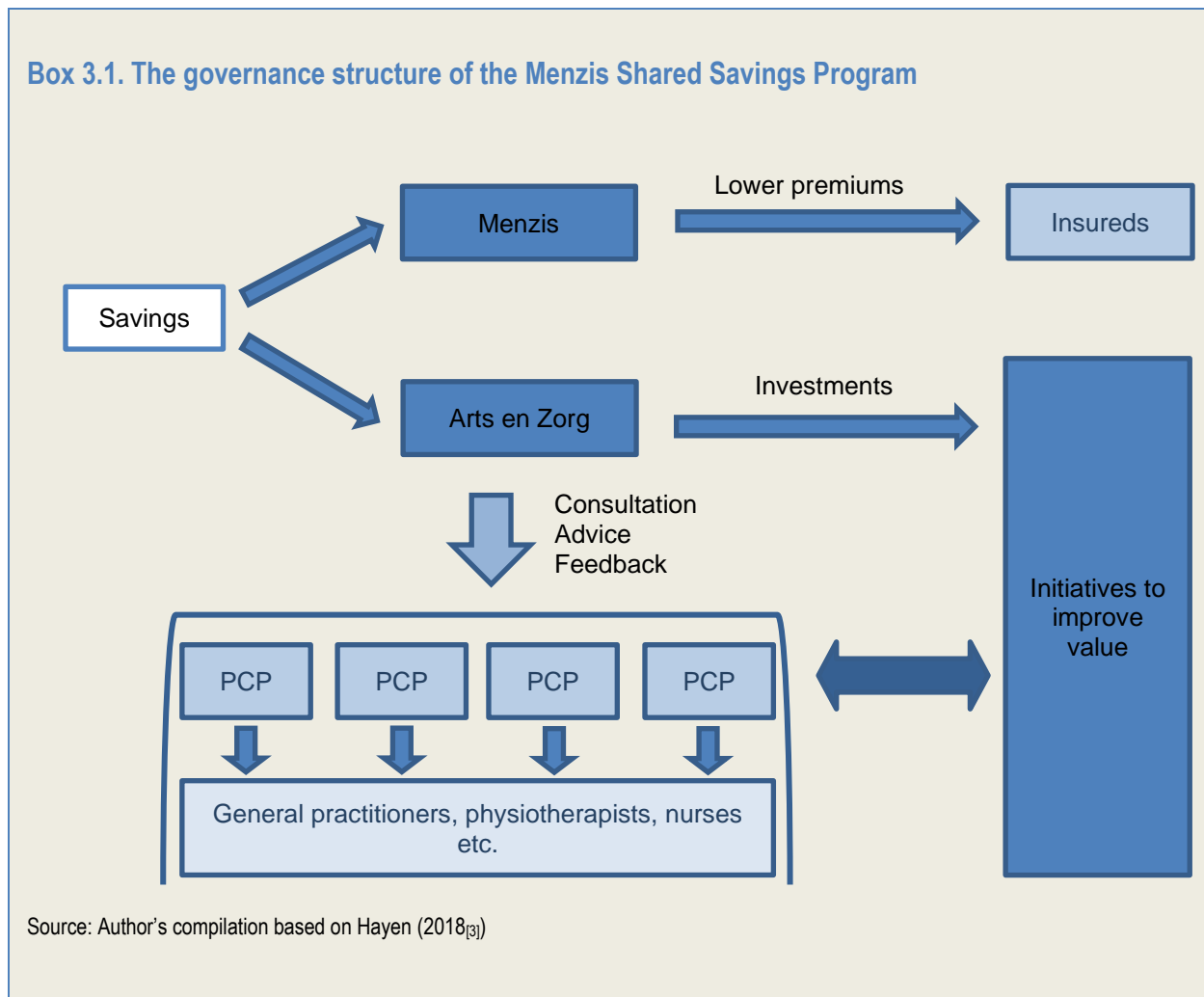
3.1.1. Provider and patient participation

40.   The Menzis Shared Savings Program was initially (and voluntarily) implemented in the city of Enschede in the Eastern Netherlands and covers eight PCPs, all of which are part of AEZ (Hayen et al., 2021[9]). Out of the 30 000 patients cared for in these PCPs, around 10 000 are insured with Menzis and thus part of the Program. GPs contributed to the development and implementation of the Program, which was based on the mutual motivation of all stakeholders to change provider payment.

41.   To qualify for participation, PCPs need to meet some prerequisites. For instance, they need to be sufficiently large to ensure statistical reliability of the cost and quality outcomes and be able to assume the financial accountability that comes with participation (Hayen et al., 2015[13]). Practices are considered capable of participating when they can "(1) routinely collect data on the quality of care, as needed for the calculation of the net sharing rate, (2) analyse these and other data such that opportunities for improvement can be identified, (3) create a forum where these opportunities are discussed with its individual care providers, and where business plans are made and implemented" (Hayen et al., 2015[13]).

42.   All patients insured with Menzis and enrolled with a GP in a participating PCP are automatically part of the Program. Dutch health insurance companies pay a quarterly capitation fee to GPs, for each insured that is enrolled with them. As such, Menzis' claims database could be used to identify which Menzis insured were registered with the participating PCPs. Furthermore, the claims database also includes information on total healthcare spending.

3.2. Payment system

43.   The Menzis Shared Savings Program rewards AEZ as the provider organisation for reducing the healthcare expenditure of patients enrolled in participating practices, conditionally on meeting pre-defined performance benchmarks. The contract is one-sided, meaning that AEZ only shares in realised savings and not in losses, i.e., excess spending (Hayen et al., 2021[9]). The Program is complementary to the traditional GP payment model, which consists of a mix of quarterly capitation fees, bundled payments for the management of chronic conditions, and fee-for-service payments. As such, it is an incremental payment model that offers additional rewards to AEZ for reducing healthcare expenditure. Menzis capped the amount of savings that AEZ can earn at a level based on an undisclosed formula, with GP revenue as one of its core parameters.

44.   At its core, the shared savings contract rests on the following five building blocks:

- AEZ is held accountable for the cost and quality of care for patients insured with Menzis and registered with their participating practices;
- AEZ is held accountable for the total healthcare costs of these patients, also for the costs that are generated outside primary care except for dental care; these costs are then expressed as an average per insurance year;
- Subsequently, this spending average is evaluated against an expenditure benchmark, consisting of a three-year weighted historical average, multiplied by the growth rate of a regional control group consisting of non-participating practices (not associated with AEZ);
- AEZ is said to have realised savings in case the average costs per insurance year are statistically significantly lower than those of the benchmark, based on a t-test;
- Savings are shared between Menzis and AEZ according to a sharing rate, which is capped at a payment maximum. The sharing rate depends on the achievement of quality targets.

45.   The design of Menzis Shared Savings Program is based on an extensive literature review of existing shared savings models, which was carried out by Hayen (Hayen et al., 2015[13]) to determine the ideal contract features and incentives. The authors further provide a detailed explanation of the rationale behind this contract design.

3.2.1. Calculation of healthcare expenditure and savings

Calculation of savings

46.   In the Menzis Shared Savings Program, per capita spending is defined as total healthcare spending for the patients insured with Menzis and enrolled in a participating practice. All medical services

covered by the mandatory and supplementary health insurance packages count towards 'total spending', except dental care. Since patients do not require a referral to see a dentist, GPs have little influence over the care provided in this sector. However, care provided by specialists or other types of in-hospital care are included in the calculation of health expenditure, like prescription drug spending and diagnostic care. While deductible payments are paid by patients and thus do not count towards the insurer's spending, they are still included in the calculation of health expenditures to reward all efforts in reducing health spending equally (Hayen et al., 2015[13]). The insurer Menzis calculates AEZ's average per capita spending and savings on an annual basis.

47.   To prevent that spending figures are distorted by spending outliers, the contract contains an expenditure cap for individual patients (Hayen et al., 2015[13]). If a patient's healthcare expenditures exceed this cap, the amount above the cap will not count toward the calculation of AEZ's spending average. The cut-off point was jointly defined by Menzis and AEZ and is set at €22 500 per patient (Hayen et al., 2015[13]). AEZ's per capita spending is a weighted average of its patients' annualized spending (i.e. extrapolated to a full insurance year, in case a patient has not been enrolled for a full insurance year (at either the insurance company or at the participating GP)), weighted for enrolment length. Note that in case a patient leaves the insurance company within the year – this can happen in a few instances – an insurer can no longer determine at which GP this patient is enrolled (since it no longer has to make the quarterly capitation payment). Therefore, the enrolment length is defined as the minimum of insurer and GP enrolment. Spending is annualized to make sure that the €22 500 spending cap is also applied proportionally (i.e. also people with €11250 spending who leave in July, were considered outliers in the contract).

Expenditure benchmark

48.   AEZ's per capita spending is evaluated against a benchmark to determine whether savings have been realised. Since the benchmark ultimately determines whether AEZ has realised savings, setting an appropriate benchmark is of crucial importance. A benchmark can be designed such that it reflects the mere counterfactual of what spending would have been, had AEZ not been participating in the Program but may also set additional incentives for cost containment.

49.   In the Menzis Shared Savings Program, the benchmark is set to be challenging enough to motivate providers to reduce healthcare spending, without appearing unachievable. The benchmark is calculated based on the three-year weighted average of AEZ's own historical spending with higher weights assigned to more recent years. AEZ's historical average is trended forward by the growth in expenditure of randomly sampled non-participating providers in the same region (Hayen et al., 2015[13]). Both the historical average as well as the growth trend are adjusted for inflation and casemix. The latter adjustment is meant to make sure that the benchmark reflects the participating practices' current population in terms of demographics, the presence of supplemental insurance yes/no and health status. Each year, updates of patients' demographics (i.e. age) and supplemental insurance choice are added to the casemix adjustment model. As for health status however, the model uses pre-pilot statuses. This is to not incentivise healthcare providers to 'upcode' illnesses rather than improving care or providing preventive care (Hayen et al., 2015[13]).

50.   Statistical hypothesis testing is used to define whether AEZ's savings are significantly different from zero. There are no negative consequences or penalties for AEZ if spending remains constant or increases. In that, the payment model is one-sided and allows AEZ to share in savings without holding it accountable for losses.

Sharing rate

51.   The sharing rate between AEZ and the insurer and the shared savings payment limit have been agreed upon before the start of the Program and are not publicly available for reasons of confidentiality.

3.2.2. Linking payment to quality of care

52.   One risk of shared savings contracts is that they may incentivise providers to realise savings at the expense of quality. To ensure that the quality of care does not decrease with the implementation of the shared savings Program, the contract includes a pay-for-performance element, which holds that AEZ's sharing rate depends on its performance on several quality indicators.

53.   Quality is measured through process and outcome indicators in four domains (Hayen et al., 2015[13]):

- patient satisfaction
- chronic care
- drug prescription behaviour
- practice management

54.   The indicators in these four domains have been agreed upon by the insurer and AEZ and cover services that the participating GPs perform or coordinate themselves so that changes in their behaviour can be identified and rewarded. The performance on these quality indicators is calculated for AEZ as a whole, meaning across the PCPs participating in the Program. AEZ has access to the performance of individual practices, however, and can discuss these with individual providers to develop strategies for improvement. In that, AEZ can involve and track individual GPs throughout the contract.

55.   A selection of indicators used to assess providers' performance in the first year of the Program is listed in Table 3.1 (Hayen et al., 2021[9]).

Table 3.1. Selection of indicators used to assess provider performance

Domain	Indicators
Chronic care/ COPD	Percentage of patients who had their inhalation technique tested at least once in the past 12 months
	Percentage of patients smoking, of those for whom smoking behaviour was registered
Chronic care/ Diabetes	Percentage of patients tested at least once for Hba1c levels in the past 12 months
	Percentage of patients who have received an eye examination at least once in the past 24 months
Patient satisfaction	The degree of satisfaction with the final treatment decision
	The personal attention you received during your visit
Prescription drug policy	Percentage of users who use metformine as an anti-diabetic drug
	Percentage of new users of non-steroidal anti-inflammatory drugs, who use ibuprofen, naproxen or diclofenac
Practice management	Whether a PCP has been accredited by the Dutch College of General Practitioners. PCPs are accredited when meeting quality standards regarding, e.g., operational processes, quality of care and patient safety.

Source: (Hayen et al., 2021[8])

56.   Quality is evaluated on both an absolute scale (with a higher score for better quality), and a relative scale (with a higher score for improvement).

57.   For each indicator, a percentage from 0% (worst possible performance) to 100% (best possible performance) can be achieved. Performance across these indicators is assessed based on a point system, where 3 points can be collected each time a 25% threshold or "gate" is passed (see Figure 3.1). AEZ receives an extra 3 points for surpassing the 90% threshold (Hayen et al., 2015[13]).

Figure 3.1. Calculation of the performance score

Earning points for absolute performance

Fig. 2 Earning points for absolute performance. The black and white checkered bar represents the score obtained on a specific indicator, ranging from 0 % to 100 % of the maximum achievable score. The bar is subdivided into five gates. For each gate passed, a provider receives three points
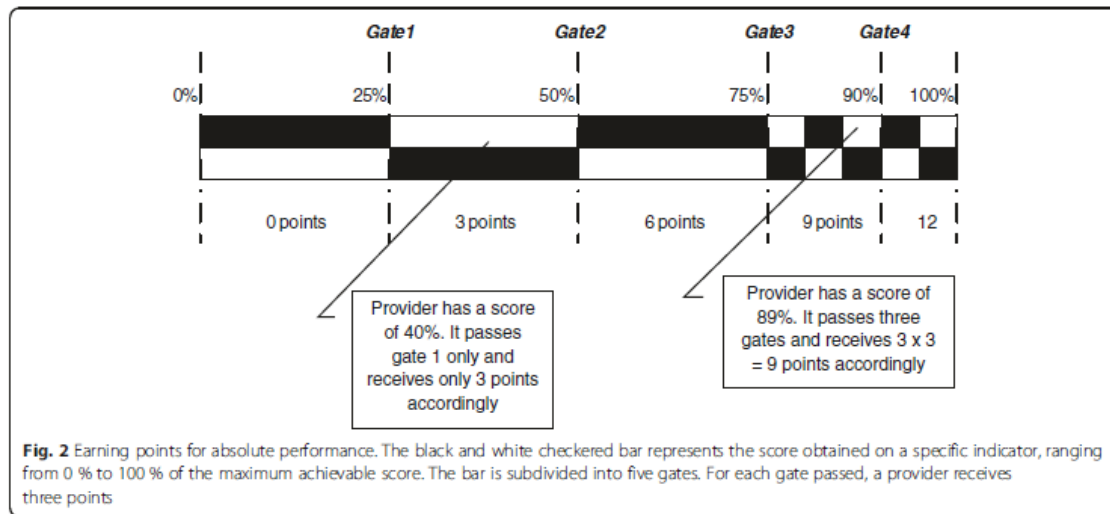
Source: Reproduced from Hayen et al. (2015[13])

58.   AEZ can not only earn points for absolute performance but also for improvements relative to its performance in the prior year. The calculation mechanism is similar to the mechanism portrayed above. Gate 1 is passed when the improvement is >0%; gate 2 when the improvement is >2,5% and so on (gate 4: >7,5%). Passing a gate yields 1 point. So, the maximum score for a single quality indicator is 12 points (absolute performance) + 4 points (in case absolute performance is 7,5% higher – in absolute terms – than last year. The maximum score is achieved when, for example, AEZ improved from 81% to 91% adherence to quality standards (see table 3.1). A decrease in performance of more than 5% from one year to another, has the consequence that AEZ does not receive any performance points for the respective indicator. This is to prevent providers from compromising quality for reductions in health expenditure. A decline of performance points of less than 5% is not penalised, however, since it was acknowledged that changes in observed quality may also be random (i.e., a patient not showing up).

59.   The quality scores of the different domains are combined to calculate AEZ's quality score, which is then multiplied by the sharing rate to determine the percentage of savings that AEZ receives. Quality scores are not corrected for case mix.

3.3. Investment of savings in value-promoting interventions

60.   AEZ has invested savings in several interventions, with the aim to improve the cost and quality of care. Investing in the infrastructure and services provided in primary care, for instance through additional online care and equipment, enables and encourages GPs to provide better value care to their patients. Investments in value-promoting interventions are further sustainable as they are expected to lead to savings in the long run and thereby help generating the funds needed to finance them.

61.   AEZ's investments seek to strengthen primary care in three main ways (von Aartsen, 2017[14]) (Marselis, 2015[15]). The first one is *substitution or task delegation*. For instance, AEZ reported that it invested in facilitating the delegation of tasks from the GP to either the physician assistant or specialist nurse and organised in-house consults by dermatologists to prevent unnecessary visits to the hospital. Other types of investments are associated with the *digitalisation* of healthcare, including the increased

offer of online tools and the launch of an app with which GPs can send pictures of patients' skin conditions to dermatologists. Through this app, dermatological concerns can be treated at the level of primary care and only patients with severe conditions must visit specialists. AEZ further reported in several interviews, that the Program enabled GPs in adopting a more *patient-centred approach.* For instance, AEZ invested in the provision of online services, and the equipment needed to offer these to patients, which gives patients more options for home-based care (Menzis, 2017[12]). Savings are also used to purchase new medical devices that support GPs in the delivery of primary care.

62.   While the Menzis Shared Savings Program aims to improve the value of care delivered to all patients registered in participating GPs, it also includes components that specifically target the value of care for people with chronic conditions. In the Netherlands, GPs are responsible for coordinating chronic care, which usually constitutes a considerable portion of their revenue. Under the Program, GPs are encouraged and supported to improve the care provided for patients with chronic conditions, as the Program rewards secondary prevention (this leads to savings) and adherence to quality standards (see box 3.1) (Menzis, 2017[12]). AEZ is further financially rewarded for supporting GPs in providing coordinated, high-quality care since higher savings are realised when there is less duplication of services

63.   The Menzis Shared Savings Program thus contains several incentives to improve the quality and patient-centredness of care, specifically for people with chronic conditions. The payment model enables AEZ to implement value-promoting interventions that allow GPs to provide quality care for patients with chronic conditions, for instance by shifting parts of care to a home-based setting.

3.4. The impact of the Program on the risks that providers and insurers bear

64.   Shared savings contracts alter the financial risk that payers and providers bear, in this case Menzis and AEZ respectively, thereby ideally setting incentives to reduce spending without compromising on quality or overburdening providers. The Program's payment model is one-sided, meaning that AEZ shares in savings but not in losses. Even though AEZ does not have to pay back part of the spending above the benchmark, participating in the Program may still pose a financial risk, most notably if its share in savings is not sufficient to cover investment costs, including the management of the Program and the cost of implementing value-promoting interventions.

65.   Another risk for AEZ is that the incentives following from the Program may be at odds or even run counter to the incentives of contracts that Menzis has with other providers like hospitals. As Hayen (Hayen, 2018[4]) points out, "a hospital financed under activity-based costing might be less willing to lower spending in cooperation with AEZ than a hospital who just signed a multiannual block [i.e., global budget] contract". The extent to which AEZ can generate savings thus also depends on the extent to which the incentives set by the Program can be aligned with those of payment models used to pay other providers across the care continuum.

66.   The Program also poses financial risks for Menzis, since 'gross savings', e.g., a reduction in hospital volumes, does not necessarily imply 'net savings' for the payer, i.e., a reduction in the amount of money paid to contracted providers. This is the case, for instance, if participating GPs can reduce hospital spending for patients that are treated in hospitals working under an ex-ante global budget. While the reduction in hospital care spending counts towards the savings of AEZ, the budget received by the hospital remains the same irrespective of the volume of services delivered. In this case, insurers will end up 'paying twice' because savings are calculated based on a reduction in actual treatments and not on ex-post reconciliations.

67.   Another risk for insurers is that providers like AEZ may realise savings that are not attributable to the Program and would have been made also in the absence of the contract and its incentives. This holds

for both benchmarks that purely reflect counterfactual spending – as performance year spending has a random component – and for benchmarks that are pre-negotiated and quality-adjusted.

3.5. Adjustments to the shared savings contract over time

68.   The Menzis Shared Savings Program was initially implemented as incremental to the existing GP payment system. Thus, the original, mainly fee-for-service payment system remained in place. In 2017, AEZ and Menzis jointly decided to replace this volume-oriented payment system with a prospective capitation payment as an additional stimulus for providing value rather than volume. For each person registered with a participating GP, AEZ now receives a quarterly capitation fee to cover all primary care expenses. The original shared savings contract continues to exist on top of this capitation payment model.

69.   Many benefits are associated with a payment model consisting of a budget-like base payment and an incremental shared savings contract, that covers performance in domains other than the provider's own and includes explicit quality incentives (Cattel, Eijkenaar and Schut, 2020[16]). For instance, quarterly capitation payments for primary care stimulate whole-person accountability and incentivise investments in prevention. Adding a shared savings component as an incremental payment, further allows GPs to abstract away from 'fee thinking'. With this, we mean that GPs will not be financially harmed when they provide care for which there was no fee available in the traditional system. An intriguing example is that, in the traditional system, GPs could only bill consults up to 20 minutes whereas for some patients it would take simply take longer to 'convince' them that they do not need to see a specialist. In these instances, GPs would carry the loss in revenue. Under the current system, GPs are better equipped (financially) to deviate from this 20-minute maximum as they see fit. This is an example of how alternative payment models may sometimes be better aligned with the role of healthcare providers in a healthcare system, in this case with GPs' role as critical gatekeepers to specialist care. Currently, the introduction of this combined 'all in capitation fee' and a shared savings model, is under evaluation. Results are expected in 2024.

70.   The following evaluation solely focuses on the original payment model of the Menzis Shared Savings Program with the shared savings contract as incremental to the traditional payment system.

4 Evaluation and impact

71.   The implementation of alternative payment models comes with changes in the organisation and delivery of care, which are expected to have positive effects on the cost and quality of care. To ensure that a payment model has the anticipated impact and does not negatively affect the quality of care, it is crucial to run continuous evaluations of the models. This is particularly important for payment models that reward short-term savings and which may thus indirectly incentivise under provision of care.

72.   The impact of the Menzis Shared Savings Program after its first performance year (2014-2015) has been studied by Hayen et al. (Hayen et al., 2021[9]). This was an independent evaluation. The authors evaluated its impact on per capita healthcare expenditure, quality of care and patient satisfaction. They used a difference-in-differences design with a control group of non-participating GPs from the same region to analyse whether the model led to a reduction in healthcare spending (Hayen et al., 2021[9]). A before-after study design was used to assess changes in the quality of care and patient satisfaction. Hayen (Hayen et al., 2021[9]) observed a 2% reduction in per capita healthcare expenditure in comparison to the control group but no significant changes in the quality of care and patient satisfaction (see table 3.1) for the quality indicators used in their assessment).

4.1. Study design

73.   The evaluation of the Menzis Shared Savings Program was based on Menzis' insurance data from 2011 to mid-2015. (Note that the researchers use pre-intervention data in their empirical strategy). The intervention group consisted of patients insured with Menzis and registered with a GP at a participating PCP. Only patients that were continuously enrolled with both Menzis and their GP were included. The control group consisted of a random sample of Menzis insured from the same region registered with a non-participating GP. Only GPs that were continuously active during the study period were included in the study. The final sample consisted of 21 GPs and 25 060 patients out of which 7 GPs and 9690 patients were part of the intervention group (Hayen et al., 2021[9]). An aggregate measure of case mix, the 'risk score', was developed to assign patients to different risk deciles according to several characteristics, including age, sex, coverage, and 25 chronic conditions (Table 4.1). Since high-risk patients are expected to have high spending, the risk score represents expected spending, i.e., insurer risk. In the regressions, Hayen (Hayen et al., 2021[9]) controlled for risk scores to account for differences in characteristics in the intervention and control group and their implication on growth trends (different characteristics at baseline might cause trends to diverge for reasons other than the intervention).

74.   The pre-intervention period covers the time from 2011 until June 2014 and the post-intervention period covers the time from July 2014 to June 2015, which was the first performance year of the Menzis Shared Savings Program.

Table 4.1. Population characteristics of the intervention and control group (2014 unless indicated otherwise)

|	AEZ	Control group
Number of insured	9 690	15 370
Age, in years (standard deviation)	44.9 (23)	43.5 (22)
Female sex (%)	51%	51%
Chronic illness in 2011 (%)		
Asthma	3.3%	2.9%
Diabetes Mellitus 2	2.9%	3.2%
Cardiovascular diseases	2.5%	2.6%
Risk score in 2011		
Mean	1.01	0.99
Interquartile range (Q3- Q1)	0.65	0.63
Average Quarterly expenditures (€)	668.83	649.70
Average Quarterly expenditures (capped) (€)	406.68	385.94

Source: Reproduced from Hayen et al. (2021[8])

4.2. Healthcare expenditure

75. The study assessed changes in per capita quarterly spending for patients insured with Menzis and registered with a GP in the intervention or control group. Quarterly spending was capped at the 95th percentile to decrease the influence of outliers on the calculation. To better understand potential changes in healthcare expenditure, i.e., in which domain savings may be realised, claims were categorized into categories based on the purpose or context of spending, such as prescription drug spending, hospital care, care provided by GPs, or laboratory tests (Hayen et al., 2021[9]).

76. While absolute per capita healthcare spending was higher in the intervention group, providers participating in the Menzis Shared Savings Program were able to reduce the growth in spending more than those in the control group. On average, healthcare spending was €23 higher for the intervention group than the control group before the onset of the Program and only €15 higher (P<0.001) in the post-intervention period (see Figure 4.1). Using a difference-in-differences design, savings were estimated to be 2% of total healthcare expenditures (Hayen et al., 2021[9]). An identifying assumption of the difference-in-differences design was that pre-intervention spending trends for the control and intervention groups were parallel, which is the case for the raw data (see Figure 4.1). The researchers further corrected per capita spending for population differences between both groups and performed a statistical test measuring whether trends only start to diverge after the onset of the Program. Their analysis confirmed that the observed change in spending after the onset of the Program is very likely attributable to the Menzis Shared Savings Program itself.

Figure 4.1. Development of healthcare expenditure before and after the intervention

Quarterly unadjusted medical spending for AEZ and the control group (capped at the 95th percentile)
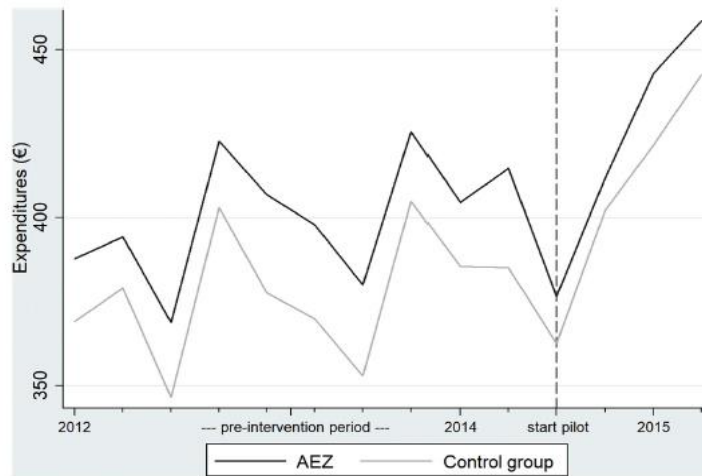
Source: Reproduced from Hayen et al. (2021[8])

77.   Five out of the seven PCPs in the intervention group significantly reduced healthcare spending. The study finds that savings can be mainly attributed to a decrease in the volume of services delivered (Hayen et al., 2021[9]).

78.   Hayen (Hayen et al., 2021[9]) carried out an additional difference-in-differences analysis with category-specific spending as the dependent variable instead of 'quarterly total spending' to determine changes in spending for different types of care (see Table 4.2). The authors find that savings have been primarily realised in hospital care, indicating that AEZ was successful in reducing healthcare expenditure across the care continuum through its investments in primary care.

Table 4.2. Spending effect of the Menzis Shared Savings Program on different types of care (2014-2015)

Effect on quarterly healthcare spending for different types of care in Euro (€)

	Main specification
GP care	-0.54 (0.45)
Hospital care	-6.47*** (2.12)
Laboratory tests	-0.66** (0.24)
Spending under supplemental coverage	-0.21 (0.56)
Prescription drug spending	0.38 (0.55)

Note: Standard errors in parentheses. Expenditures capped at the 95th percentile. **$p < 0.05$, ***$p < 0.01$.
Source: Reproduced from Hayen et al. (2021[8])

79.   An analysis of healthcare expenditure for outliers, which are patients whose medical costs exceed the cut-off point, further indicates that expenditure for higher-risk patients did not mainly contribute to the savings effect. Instead, savings were realised primarily in care for the regular patient population in the lower- and mid-risk deciles (see Figure 4.2). This suggests that participating providers did not focus their cost-saving efforts on high-risk patients specifically but realised savings in the provision of regular care (Hayen, 2018[4]). It is possible that providers would act differently if there was no cut-off point for outliers with exceptionally high healthcare expenditures.

Figure 4.2. Shared savings effect according to risk decile (2014-2015)

Shared savings effect in €
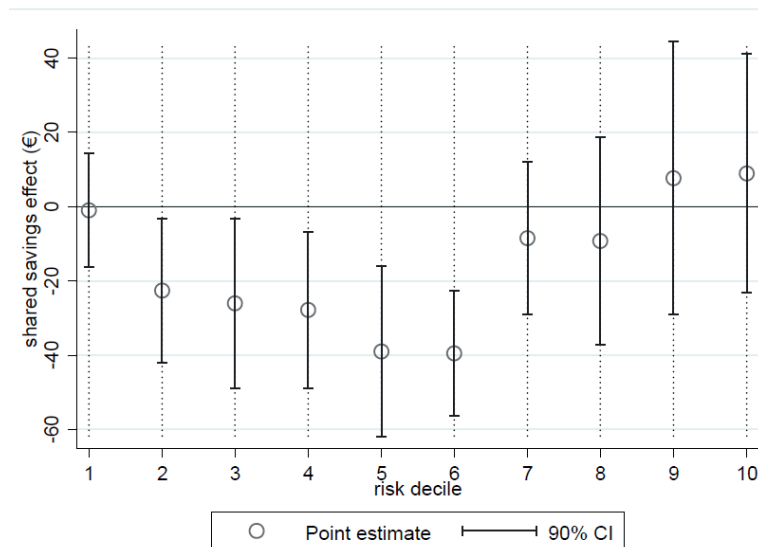
Source: Reproduced from Hayen (2018[3])

80.   The study thus finds that PCPs participating in the Menzis Shared Savings Program were, on average, able to reduce per capita healthcare expenditure, which supports the hypothesis that making providers or provider organisations accountable for the cost and quality of care incentivises cost-reducing behaviour. In particular, it also holds in this case that the provider *organisation* AEZ, who is the contracting party, managed to pass on the cost-saving incentives of the contract to the individual providers, in this case GPs.

4.3. Quality of care

81.   Hayen (Hayen et al., 2021[9]) further assessed the impact of the Menzis Shared Savings Program on the quality of care, relying on administrative data from participating GPs. The evaluation included indicators on the quality of chronic care delivery (diabetes and COPD) and prescription policy. Data on care quality was only available for the intervention group so that a difference-in-differences design could not be implemented for this part of the study. The authors opted for a before-after design instead, evaluating how the quality of care in the intervention group changed *with* the implementation of the Menzis Shared Savings Program (Hayen et al., 2021[9]).

82.   The authors find that the impact of the Program on the quality of chronic care and prescription policy is mixed (Hayen et al., 2021[9]). While improvements were registered for some indicators, such as most diabetes indicators, provider performance in others declined (see Table 4.3 and Table 4.4). The researchers and participating GPs were not able to identify a clear reason for this variation in care quality. It has been noted, however, that the risk of sudden swings in performance is slightly higher for COPD indicators since the population size is markedly smaller (see Table 4.3).

Table 4.3. Effect of the Menzis Shared Savings Program on the quality of chronic care (baseline = 2013; PY = 2015)

COPD			
(Score / maximum score)			
Indicator	Baseline	PY1	Impact
Percentage of patients who had their inhalation technique tested at least once in the past 12 months	90.5%	65.0%	-
Percentage of patients who received spirometry based on FEV1/FVC ratio post BD in the past 12 months	82.0%	72.9%	-
Percentage of patients whose level of physical activity was registered	93.6%	86.5%	-
Percentage of patients whose smoking behaviour was registered	96.2%	89.2%	-
Percentage of patients smoking, of those for whom smoking behaviour was registered	50.1%	50.8%	
Percentage of patients who have received a flu shot	85.8%	85.5%	
Percentage of patients who experienced an exacerbation at least twice in the past 12 months	82.0%	85.1%	
Sample size	566	594	
Diabetes			
(Score / maximum score)			
Indicator	Baseline	PY1	Impact
Percentage of patients tested at least once for Hba1c levels in the past 12 months	97.0%	98.9%	+
Percentage of patients with Hba1c levels < 53 mmol/mol, of those tested	61.3%	59.4%	
Percentage of patients with Hba1c levels > 69 mmol/mol, of those tested	94.3%	94.4%	
Percentage of patients whose lipid profile was measured in the past 12 months	88.3%	91.2%	+
Percentage of patients with LDL-cholesterol levels < 2,5 mmol/l, of those tested	67.9%	66.6%	
Percentage of patients whose renal clearance was determined at least once in the past 12 months	92.1%	94.3%	
Percentage of patients whose albumin clearance was tested at least once in the past 12 months	84.4%	89.1%	+
Percentage of patients whose blood pressure was tested at least once in the past 12 months	97.0%	98.7%	+
Percentage of patients with a systolic blood pressure < 140 mm Hg, of those tested	62.6%	63.8%	
Percentage of patients whose BMI was determined at least once in the past 12 months	94.6%	98.0%	+
Percentage of patients with a BMI < 25, of those tested	16.1%	15.9%	
Percentage of patients whose smoking behaviour was registered	92.6%	98.1%	+
Percentage of patients smoking, of those for whom smoking behaviour was registered	80.1%	80.4%	
Percentage of patients who have received an eye examination at least once in the past 24 months	85.0%	93.6%	+
Percentage of patients with diabetic retinopathy, of those tested	87.1%	89.3%	
Percentage of patients who have received a foot exam	83.9%	91.2%	+
Sample size	1702	1758	

Note: "+" indicates a significant (p<0,01) favourable development and "-" a significant (p<0,01) unfavourable development in the intervention group in the first performance year. " " indicates no significant development.
Source: Reproduced from Hayen et al. (2021[8])

Table 4.4. Effect of the Menzis Shared Savings Program on prescription drug policy (baseline = 2013; PY = 2015)

Prescription drug policy				
Score / Maximum score				
Indicator	N (B/PY1)	Baseline	PY1	Impact
Percentage of users of who use metformine as an anti-diabetic drug	1007/1017	88.9%	91.2%	
Percentage of users of statines whose last receipt contained simvastatine, out of those who use lipid lowering medication	2378/2441	50.7%	50.8%	
Percentage of users of triptans, whose dosage is less than 72 tables sumatriptan or less than 48 tables of other triptans	252/253	89.3%	87.4%	

Percentage of new users of non-steroidal anti-inflammatory drugs, who use ibuprofen, naproxen or diclofenac	1557/1593	78.3%	82.7%	+
Percentage of users of simvastatine, who receive dosages of 40mg	1275/1305	66.9%	69.0%	
Percentage of chronic users (40-79 years) of nitrates or platelet aggregation inhibitors who have received statins	866/832	70.8%	69.6%	
Users of angiotensin II receptor antagonists, who use the generic product (losartan, valsartan, etc.)	1467/1432	85.2%	88.4%	

Note: "+" indicates a significant (p<0.01) favourable development and "-" a significant (p<0.01) unfavourable development in the intervention group in the first performance year. " " indicates no significant development.
Source: Reproduced from Hayen et al. (2021[8])

4.4. Patient satisfaction with the Menzis Shared Savings Program

83.   The performance score of the Menzis Shared Savings Program also includes patient satisfaction as a component. Patient satisfaction is measured through a survey that is sent out to all patients registered in participating practices who had visited their GP in the three months before the beginning of the performance year or in the three months after the end of the first performance year (Hayen et al., 2021[9]). The data obtained from this survey were analysed to assess the impact of the Program on patient satisfaction, comparing patient satisfaction at baseline to patient satisfaction after the end of the first performance year. The authors did not find significant differences between the results before and after the implementation of the Program, indicating that patient satisfaction has remained largely stable (see Table 4.5).

Table 4.5. Impact of the Menzis Shared Savings Program on patient satisfaction (baseline = 2014; PY = 2015)

Patient satisfaction			
(10-point scale)			
Indicator	**Baseline**	**First year of implementation**	**Impact**
Overall satisfaction	8.2	8.2	
The degree of satisfaction with the final treatment decision	8.2	8.4	
The ease with which you could make an appointment	8.4	8.4	
The time between making an appointment and seeing the GP	8.5	8.3	
The ease with which you could reach your GP by phone	8.1	8.1	
The personal attention you received during your visit	8.6	8.4	
The extent to which the GP tries to understand your problem	8.6	8.6	
The extent to which you shared in decision-making about your treatment	8.6	8.5	
The extent to which you were informed about your condition and treatment	8.4	8.5	
The extent to which you understood this information	8.5	8.5	
Sample size	309	595	

Note: "+" indicates a significant (p<0.01) favourable development and "-" a significant (p<0.01) unfavourable development in the intervention group in the first performance year. " " indicates no significant development.
Source: Reproduced from Hayen et al. (2021[8])

84.   Hayen (Hayen et al., 2021[9]) evaluation thus finds that the Menzis Shared Savings Program led to a significant reduction in per capita healthcare expenditure for patients registered with participating providers. The study further shows that the quality of care and patient satisfaction were not negatively affected by GPs' efforts in reducing costs. This also means, however, that the value-promoting interventions did not lead to significant overall improvements in quality.

4.5. Chronic care management

85.   While no significant effect on the quality of care was measured, Hayen (Hayen et al., 2021[9]) interestingly observed a drop in the number of patients who were enrolled in so-called "chronic care programs[1]" (see Table 4.6). In the Dutch healthcare system, GPs receive a bundled payment for each patient they enrol in a chronic care program, which provides them with guaranteed revenue and, at first glance, seems favourable. In some cases, however, that patients enrolled in chronic care programs do not show up for appointments, which negatively affects a GP's quality indicators pertaining to the delivery of chronic care, as these usually use the population enrolled in chronic care programs as the denominator. If patients are thus enrolled in a chronic care program but do not show up, the score on process indicators will be lower (e.g., "has received a foot exam, yes/no") as well as the net savings rate. The GPs reported that their first strategy was to contact patients with a 'no-show' and only exclude them from the chronic care program in case this did not help. For GPs, excluding no-show patients from chronic care programs thus constituted a way of reducing expenditures without negatively impacting health.

Table 4.6. Impact of the Menzis Shared Savings Program on patient enrolment in chronic care programs (baseline = 2013; PY = 2015)

Patients with diabetes mellitus type 2 and their enrolment into chronic care programs

Enrolment type	Baseline	First year of implementation	Significant (p<0.10)?
Percentage of DM2 patients receiving treatment mainly from a specialist	14%	13%	no
… receiving treatment mainly from a GP	82%	85%	no
… receiving treatment mainly from a GP, but not out of a chronic care program	5%	13%	yes
… enrolled in a chronic care program	77%	71%	yes
Sample size	1702	1758	

Source: Reproduced from Hayen et al. (2021[8])

86.   The change in GPs' behaviour highlights that the participating providers were aware of how to reduce cost but also how to improve their performance on the quality indicators. This observation further reminds that different payment models, in this case, a shared savings model and bundled payments for chronic care need to be well-aligned to not cancel out each other's impact. Potential effects of shared savings programs and interactions with other payment models need to be carefully monitored to adjust the contract design if needed.

---

[1] These programs cover standard care for specific chronic conditions (as defined by national guidelines, e.g. eye and foot exams for people with diabetes), and are reimbursed for as a prospective, quarterly, bundled payment. There are programs for people with, e.g., diabetes type 2, COPD, asthma and people at risk of developing heart conditions.

5 Discussion

87.   The impact of the Menzis Shared Savings Program is not only attributable to the design and implementation of the contract but also shaped by several contextual factors that have enabled, facilitated or inhibited its implementation and impact. The interplay between these contextual factors and financial incentives, yield important lessons for the design of value-based payment models.

5.1. Facilitating factors

5.1.1. Health system features and regulatory environment

88.   One core element of the Menzis Shared Savings Program is the *strong role of GPs* in the Dutch healthcare system. Not only do they act as gatekeepers to other providers, but GPs also typically have long-lasting relationships with their patients and constitute their first point of contact in case of illness. As such, GPs know – well before the start of the performance year – what their population looks like and what kind of interventions would be promising in reducing expenditures. This makes it easier for providers to successfully assume accountability over the cost and quality of care in the shared savings contract. As gatekeepers to specialist care, GPs are further in a position to influence healthcare expenditures in other domains of care as well. In contrast to the traditional payment model, the shared savings contract explicitly rewards providers' efforts to reduce expenditures across the whole care continuum. Since GPs coordinate care for patients with chronic conditions, they also have significant influence on the quality and cost of chronic care, for instance by offering more home-based services.

89.   The results of the Menzis Shared Savings Program show that shared savings contracts can also work in fragmented health systems, where primary, secondary, and tertiary care largely operate separately if GPs fulfil a gatekeeping role. In systems where GPs do not act as gatekeepers, the impact of such a payment model is likely to be lower as providers have less leverage to influence healthcare expenditure in care settings beyond their own practice.

5.1.2. Data infrastructure

90.   The advanced data infrastructure of the insurer and the provider, which was used to calculate healthcare spending and measure care quality, has been identified as another facilitating factor. A reliable and robust database is essential for collecting and analysing claims data on a per capita level and for evaluating the performance of practices, which constitute the core pillars of a shared savings payment model. Insurers thus need to have an advanced data infrastructure to implement such a model as well as the resources and data analytics capacity to conduct the required financial and performance calculations.

91.   Apart from using data for analysis purposes, it has proven beneficial to grant individual providers, in this case GPs, access to data on their performance. In the Netherlands, all GPs regularly obtain a basic performance data set and can request additional data from health insurers. GPs participating in the Menzis Shared Savings Program had access to aggregated data on their patients, including information on hospital use, laboratory tests or treatment patterns, which enabled them to monitor their performance and patients' healthcare use and to adapt their behaviour accordingly (Hayen et al., 2021[9]). The participating GPs

indicated that it was useful to see how they compared to their colleagues or other GPs and to gain insight into the follow-up costs of care, which they are usually not aware of. Having access to a wide range of data not only enabled GPs to identify opportunities for cost saving but also increased their motivation to participate. The well-established health data infrastructure in the Dutch health system thus contributed significantly to the success of the Program.

5.1.3. Communication and transparency

92.   The implementation of payment models comes with many changes and may cause uncertainty among providers, for instance regarding the impact of the payment model on their income, practice organisation, and the risks associated with participation. *Clear communication* with all stakeholders is central to prevent undesired behaviours. For example, it is important to inform providers that the benchmarks used in a shared savings payment model are corrected for case mix differences to discourage 'cherry picking'. It is advised to discuss the design details of the payment model with providers as well as the type of interventions that are likely to generate savings. In the case of the Menzis Shared Savings Program, all stakeholders were engaged and well-informed about the development and implementation of the model. Engaging providers in the co-creation of the payment model ensures that the contract is aligned with all stakeholders' interests, which increases their motivation to participate and the likelihood that they are able to generate savings.

5.1.4. Risk mitigation

93.   From the perspective of the provider organisation, in this case AEZ, it is particularly important to *understand the risks* that come with participation and how to prevent negative outcomes. Menzis Shared Savings Program was designed in a way that minimises risk and uncertainty for providers, thereby encouraging participation and strengthening the impact of incentives. One important feature of the Program is that it primarily includes patients and services for which GPs can be held accountable. While the contract also covers services provided by other healthcare professionals, the GPs still have a strong influence on these services due to their role as gatekeepers.

94.   Introducing a cut-off point for individual healthcare spending in the calculation of expenditure further reduces GPs' risk of being negatively affected by the high costs of outliers. Moreover, the Menzis Shared Savings Program includes a risk adjustment for differences in case mix between provider and benchmark populations, which is important to not disadvantage providers with higher-risk patient populations (Hayen, 2018[4]). Lastly, providers have the right to have the results and calculations checked by an external body. These features of the Program contribute to the minimising of risks and uncertainty among providers and have been identified as a facilitating factor for the success of the programme.

5.2. Inhibiting factors

5.2.1. Health system features and regulatory environment

95.   One feature of the Dutch healthcare and insurance system that has been identified as inhibiting is the so-called *'billing lag'*. Under a shared savings model, savings can only be calculated and communicated to providers when the insurer has billed all treatments. However, given the payment model in place in the hospital and mental healthcare sector, this usually takes place about 9 months after the performance year has ended. Only then do providers know if they were able to realise savings. A shorter period between providers' care delivery and the assessment of costs and quality would give providers more timely feedback on their financial performance and is thus likely to enhance their ability and motivation to reduce costs. Calculating savings on a quarterly basis would be a preferred option from a theoretical point of view since

more frequent (and smaller) incentives are usually preferred over a single, large incentive. This, however, is not possible in a system with substantial billing lags as is the case in the Netherlands.

96.   Another factor that complicated the implementation of the Menzis Shared Savings Program are the Dutch *privacy laws* on health data. As the initiators of the Program note, privacy laws have in some cases prevented the insurer from sharing relevant patient data that could be helpful for GPs to determine appropriate interventions, for example by sharing the names of the patients that were most costly (possibly in part because of coordination problems). As health data governance and privacy policy are under national jurisdiction, such matters need to be addressed at the national level.

5.2.2. Limited alignment of provider payment models

97.   The strong role and considerable freedom of insurers in the Dutch healthcare system encourages bottom-up programs and local pilots of alternative payment models, which can lead to several different provider payment models co-existing next to each other. In the Menzis Shared Savings Program, for instance, the shared savings payment model was initially incremental to the traditional GP payment system consisting of quarterly capitation fees, fee-for-service payments and bundled payment for chronic care. Moreover, some of the hospitals that participating GPs were referring their patients to were paid via global budget schemes, which further complicated the calculation of savings. Hospitals paid under the regular activity-based model, however, may be reluctant to cooperate with AEZ's GPs to reduce spending, since this would lower their own revenue.

98.   When implementing an alternative payment model, it is crucial that it is well-aligned with other existing payment models. Otherwise, the incentives following from different models may conflict with each other, which can put providers in a difficult position to decide over a course of treatment. For example, Hayen (Hayen et al., 2021[9]) found that the GPs participating in Menzis Shared Savings Program chose to not enrol several no-show patients with chronic conditions in bundled payment programs, since providing regular care was considered more cost-effective. To ensure that the incentives following from different payment models do not compete or cancel each other out, it is advised to carefully align new payment models with other existing payment systems in a given healthcare context.

5.3. Generalizability of the results

99.   While the effect of the Menzis Shared Savings Program on per capita healthcare expenditure found by Hayen (Hayen et al., 2021[9]) is significant and robust, it is not necessarily generalisable to other GPs or health systems. As noted throughout the report, several contextual factors influenced the design and impact of the Program, including the Dutch healthcare system of managed competition and the prominent role of insurers therein, the strong position of GPs as gatekeepers to specialist care as well as the payment models via which other providers in the Netherlands are paid.

100.   From a theoretical perspective, if GPs cannot influence patients' contact with specialists and hospital care, it does not make sense to hold them accountable for healthcare expenditure across the entire care continuum. On a practical level, the lack of information on patients' primary GP, for instance via the proxy of capitation fees, will make it difficult to match patients – and their healthcare expenditure - with single GPs or PCPs. Patients may even see different GPs at different times.

101.   Moreover, the Menzis Shared Savings Program was initially implemented as a pilot with active involvement of all stakeholders. The same Program may thus yield different results if implemented on a large scale without the same level of communication between payers and providers.

102.   Another factor that may have influenced the observed results is the careful selection of GPs for participation in the Program, based on the range of requirements outlined in section 3. All participating GPs were further part of AEZ which, uniquely, provides its member with support in managerial tasks and

data analytics. Moreover, AEZ indicated an active interest in participating and was motivated to implement changes. It is thus possible that selecting providers for participation at random would have resulted in different outcomes.

103.   The region of the intervention and the population covered by participating providers constitutes another aspect of the study that may limit its generalisability. The area in which the Menzis Shared Savings Program was implemented, the city of Enschede, is among those with the highest healthcare spending in the Netherlands. Moreover, AEZ's GPs had relatively high spending rates compared to other providers in the region, which suggests that there is considerable potential for savings. In other regions of the Netherlands with lower baseline healthcare expenditure, the potential for savings may be lower than in the intervention group (Hayen, 2018[4]). On the other hand, the savings generated under Program have been primarily realised in the lower- and mid-risk deciles (see Figure 4.2), which make up larger parts of the patient population in other Dutch regions. This suggests that there may also be room for savings in regions with relatively low baseline per capita healthcare spending (Hayen, 2018[4]).

104.   As these examples indicate, contextual factors can strongly influence the impact of alternative payment models. When implemented in another health system context, their thus needs to be adapted to align financial and quality incentives with the accountability and leverage of participating providers and the health data and insurance infrastructure in the respective national health setting.

References

Cattel, D., F. Eijkenaar and F. Schut (2020), "Value-based provider payment: towards a theoretically preferred design", *Health Economics, Policy and Law*, Vol. 15/1, pp. 94-112, https://doi.org/10.1017/S1744133118000397. [16]

Douven, R. et al. (2020), "Does managed competition constrain hospitals' contract prices? Evidence from the Netherlands", *Health Economics, Policy and Law*, Vol. 15/3, pp. 341-354, https://doi.org/10.1017/S1744133119000215. [8]

Drewes, H. et al. (2014), *Landelijke monitor populatiemanagement: Deel 1: Beschrijving proeftuinen [Monitor rural population management. Part 1: Description labs]*, https://www.rivm.nl/publicaties/landelijke-monitor-populatiemanagement-deel-1-beschrijving-proeftuinen (accessed on 20 January 2023). [11]

Elissen, A. et al. (2015), "The Netherlands", in Nolte, E. and C. Knai (eds.), *Assessing Chronic Disease Management in European Health Systems - Country Reports*, World Health Organization. [5]

Hayen, A. (2018), *Shared savings and patient cost sharing in the Dutch health care system*, Ipskamp , Enschede. [4]

Hayen, A. et al. (2015), "Incorporating shared savings programs into primary care: From theory to practice", *BMC Health Services Research*, Vol. 15/1, pp. 1-15, https://doi.org/10.1186/S12913-015-1250-0/FIGURES/3. [13]

Hayen, A. et al. (2021), "Dutch shared savings program targeted at primary care: Reduced expenditures in its first year", *Health Policy*, Vol. 125/4, pp. 489-494, https://doi.org/10.1016/J.HEALTHPOL.2021.01.013. [9]

Marselis, D. (2015), *Menzis start proef met shared savings (Menzis launches trial of shared savings)*, Skipr, https://www.skipr.nl/nieuws/menzis-start-proef-met-shared-savings/ (accessed on 3 February 2023). [15]

Menzis (2017), *Shared savings*, https://www.menzis.nl/zorgaanbieders/zorginkoopbeleid-2017/shared-savings (accessed on 3 February 2023). [12]

Nederlandse Zorgautoriteit (2022), *Monitor Zorgverzekeringsmarkt 2022*, https://puc.overheid.nl/nza/doc/PUC_725683_22/ (accessed on 31 January 2023). [3]

Remers, T. et al. (2022), "Towards population-based payment models in a multiple-payer system: the case of the Netherlands", *Health Policy*, Vol. 126/11, pp. 1151-1156, https://doi.org/10.1016/J.HEALTHPOL.2022.09.008. [1]

Stolper, K. et al. (2019), "Managed competition in the Netherlands: Do insurers have incentives to steer on quality?", *Health Policy*, Vol. 123/3, pp. 293-299, https://doi.org/10.1016/J.HEALTHPOL.2018.08.018. [7]

Tsiachristas, A. (2016), "Financial Incentives to Stimulate Integration of Care", *International Journal of Integrated Care*, Vol. 16/4, https://doi.org/10.5334/IJIC.2532. [10]

Tsiachristas, A. et al. (2013), "Exploring payment schemes used to promote integrated chronic care in Europe", *Health Policy*, Vol. 113/3, pp. 296-304, https://doi.org/10.1016/J.HEALTHPOL.2013.07.007.

[17]

van den Berg, M. et al. (2015), *Dutch Health Care Performance Report 2014*, https://www.rivm.nl/bibliotheek/rapporten/2015-0050.pdf (accessed on 31 January 2023).

[6]

van Kleef, R. (2012), "Managed competition in the Dutch Health Care System: Preconditions and experiences so far", *Public Policy Review*, Vol. 8/2.

[2]

von Aartsen, C. (2017), *Menzis maakt shared saving-afspraken met huisartsen*, Zorgvisie, https://www.zorgvisie.nl/menzis-maakt-shared-saving-afspraken-met-huisartsen/ (accessed on 3 February 2023).

[14]

OECD Health Working Papers

A full list of the papers in this series can be found on the OECD website:

http://www.oecd.org/els/health-systems/health-working-papers.htm

NO.-156 – ENHANCING COMPETITION IN ON-PATENT MARKETS (JUNE 2023)? Eliana Barrenho, Marjolijn Moens, Lisbeth Waagstein and Ruth Lopert

NO. 155 – EVALUATION OF THE TOBACCO CONTROL POLICY IN FRANCE (JUNE-2023), Marion Devaux, Alexandra Aldea, Aliénor Lerouge, Marina Dorfmuller Ciampi, Michele Cecchini

NO. 154 - INNOVATIVE PROVIDERS' PAYMENT MODELS FOR PROMOTING VALUE-BASED HEALTH SYSTEMS (APRIL 2023), Luca Lindner and Luca Lorenzoni

NO. 153 - SOCIO-ECONOMIC AND ETHNIC HEALTH INEQUALITIES IN COVID-19 OUTCOMES ACROSS OECD COUNTRIES (MARCH 2023) Caroline Berchet, José Bijlholt and Mariko Ando

NO. 152 - IMPROVING THE TIMELINESS OF HEALTH EXPENDITURE TRACKING IN OECD AND LOW- AND MIDDLE-INCOME COUNTRIES (FEBRUARY 2023) Michael Mueller, Caroline Penn, Chris James, Luca Lorenzoni and David Morgan

NO. 151 - EXPLORING THE FEASIBILITY OF MONITORING ACCESS TO NOVEL MEDICINES: A PILOT STUDY IN EU MEMBER STATES (February 2023) Suzannah Chapman, Anna Szklanowska and Ruth Lopert

NO. 150 - ADVANCING PATIENT SAFETY GOVERNANCE IN THE COVID-19 RESPONSE (February 2023) Katherine de Bienassis, Luke Slawomirski and Niek Klazinga

NO. 149 - ALL HANDS ON DECK: CO-DEVELOPING THE FIRST INTERNATIONAL SURVEY OF PEOPLE LIVING WITH CHRONIC CONDITIONS: STAKEHOLDER ENGAGEMENT IN THE DESIGN, DEVELOPMENT, AND FIELD TRIAL IMPLEMENTATION OF THE PaRIS SURVEY (January 2023) Candan Kendir, Rushay Naik, Katherine de Bienassis, Nicolas Larrain, Niek Klazinga, Frederico Guanais and Michael van den Berg

NO. 148 – INTERNATIONAL ASSESSMENT OF THE USE AND RESULTS OF PATIENT-REPORTED OUTCOME MEASURES FOR HIP AND KNEE REPLACEMENT SURGERY (September 2022) Candan Kendir, Katherine de Bienassis, Luke Slawomirski, Niek Klazinga

No. 147 – THE ECONOMICS OF MEDICATION SAFETY: IMPROVING MEDICATION SAFETY THROUGH COLLECTIVE, REAL-TIME LEARNING (September 2022) Katherine de Bienassis, Laura Esmail, Ruth Lopert and Niek Klazinga

No. 146 – EXPLORING THE CONSEQUENCES OF GREATER PRICE TRANSPARENCY ON THE DYNAMICS OF PHARMACEUTICAL MARKETS (September 2022) Eliana Barrenho and Ruth Lopert

Recent related OECD publications

OECD REPORT ON MEDICAL EDUCATION AND TRAINING IN ISRAEL – TOWARDS A BETTER

GOVERNANCE STRUCTURE FOR HEALTHCARE WORKFORCE PLANNING AND POLICY-MAKING IN ISRAEL (May 2023)

HEALTH SYSTEM PERFORMANCE ASSESSMENT FRAMEWORK FOR THE CZECH REPUBLIC (May 2023)

INTEGRATING CARE TO PREVENT AND MANAGE CHRONIC DISEASES – BEST PRACTICES IN PUBLIC HEALTH (May 2023)

HEALTH AT A GLANCE: LATIN AMERICA AND THE CARIBBEAN 2023 (April 2023)

READY FOR THE NEXT CRISIS? INVESTING IN HEALTH SYSTEM RESILIENCE (February 2023)

STEP UP! TACKLING THE BURDEN OF INSUFFICIENT PHYSICAL ACTIVITY IN EUROPE (February 2023)

TIME FOR BETTER CARE AT THE END OF LIFE (February 2023)

EU COUNTRY CANCER PROFILES 2023 (February 2023)

HEALTH AT A GLANCE: EUROPE 2022 - STATE OF HEALTH IN THE EU CYCLE (December 2022)

HEALTH AT A GLANCE: ASIA/PACIFIC 2022 (November 2022)

PRIMARY HEALTH CARE FOR RESILIENT HEALTH SYSTEMS IN LATIN AMERICA (December 2022)

INTEGRATING SERVICES FOR OLDER PEOPLE IN LITHUANIA (November 2022)

PROMOTING HEALTH AND WELL-BEING AT WORK - POLICY AND PRACTICES (November 2022)

OECD HEALTH STATISTICS (2022) – Updated end Nov 2022. Access all datasets in the 2022 online database via https://oe.cd/ds/health-statistics

MODERNISING SOCIAL SERVICES IN SPAIN - DESIGNING A NEW NATIONAL FRAMEWORK (October 2022)

EVALUATION OF LUXEMBOURG'S COVID-19 RESPONSE - LEARNING FROM THE CRISIS TO INCREASE RESILIENCE (October 2022)

HEALTHY EATING AND ACTIVE LIFESTYLES - BEST PRACTICES IN PUBLIC HEALTH (2022)

GUIDEBOOK ON BEST PRACTICES IN PUBLIC HEALTH (2022)

HEALTH DATA GOVERNANCE FOR THE DIGITAL AGE IMPLEMENTING THE OECD RECOMMENDATION ON HEALTH DATA GOVERNANCE (2022)

For a full list, consult the OECD health web page at http://www.oecd.org/health/New Health

Brochur