**Policy Options for Emergency Department Diversion: The Netherlands**

**Project Overview**

Emergency departments (EDs) and urgent care systems in high-income countries face major challenges related to overcrowding, long wait times, and rising demand. This rapid review aims to uncover and describe the range of different policies designed to expand access to emergency and urgent care around the world while alleviating pressure on hospital EDs. In this review, we are specifically focusing on Australia, Belgium, Denmark, Israel, Netherlands, Ontario (Canada) and the UK.

**Healthcare system overview**

The Dutch healthcare system is based on a Bismarckian model of mandatory universal health coverage through private insurers which are required to accept all applicants. In addition, most of the population (84%) own supplementary voluntary insurance covering a range of services not covered by statutory insurance, such as dental care, complementary medicine, and contraceptives (Wammes, Stadhouders & Westert, 2020).

The Netherlands spends about 11% of its GDP on health. The share of its public spending out of the total spending on health is one of the highest in the OECD (85%). Accordingly, the out-of-pocket expenditure as a share of total spending in the Netherlands is the third lowest in the OECD (after France and Luxemburg) with 9.3% compared to the OECD average of 18.1% (OECD Health Statistics, 2022).

Due to concerns over inefficiencies, long waiting time and rising costs, the Netherlands has been implementing market-oriented reforms in its healthcare system such as creating managed competition between private health insurers, shifting from budget-oriented reimbursement of healthcare providers to a performance- and outcome-driven approach (Wammes, Stadhouders & Westert, 2020). Additional notable reforms were decentralization of long-term care, re-organization of mental healthcare and development of new roles such as advanced-practice nurse and physician assistant (Kroneman et al., 2016).

**Challenges to the emergency care system**

There is an association between population aging and increased utilization of emergency care (Kremers et al., 2019). In the Netherlands, 20% of the population are 65 and over and their share is projected to rise to 23% in 2030, with even sharper increase of over-80s (The World Bank, 2022). In view of these demographic trends an increased utilization of healthcare services is expected in the Netherlands. Crowding of emergency departments (EDs) is becoming a growing concern, driving measures to divert avoidable visits to hospital EDs (Thijssen et al., 2016; Wackers et al., 2023).

**Measures of ED diversion**

Dutch ED admissions, at 124 per 1,000 inhabitants in 2012, were lowest among benchmark countries of Australia, Denmark, England, France and Germany (which ranged between 156 and 311). Moreover, its rates of non-urgent ED visits are similarly low—84 per 1,000 inhabitants, compared to between 111 and 219 among these benchmark countries (Baier et al, 2019).

Several ED diversion innovations contribute to these outcomes. Common to many Western countries, the Netherlands established care pathways in which ambulances bypass nearest ED for the best-equipped ED (for trauma since the late 1990s, and for stroke and AMI since 2010), (Baier et al., 2019). In addition, to provide an alternative to ED visits and hospitalization for elders with complex medical and/or social issues, *First Line Stay* facilities were established that provide up to three months of care. Despite their promise, however, ongoing bed shortages and imperfect information about bed availability have meant that GPs in 2018 reported that they found *First Line* beds for only 21% of their cases on the same day. Kremers et al. (2019) report that in 2017, 17% of patients over 65 years presenting at EDs could have—but did not—received care at *First Line* facilities.

The main innovations supporting ED diversion in the Netherlands is its strong system of primary care. During office-hours patients can usually see their own General Practitioner (GP) on the same day. In addition, GPs are mandated to provide care during out-of-office hours (OOH) where they act as gatekeepers to ED and hospital admission. In 2016, 49% of ED referrals came via GPs or other carers—much higher, for example, than the UK’s 25% (Monitor, 2014; Figure 1).

*Primary Care Centers (PCC)*

Since 2000, after hours care is provided via large scale primary care cooperatives (PCCs). It is noteworthy that the shift from EDs to PCCs didn’t occur without dispute: insurers offered shared savings programs to hospitals to compensate for lost revenue (Baier et al., 2019). Currently, PCCs provide telephone advice (40% of contacts), clinic visits (50%) or home visits (10%) during OOH. They employ a uniform, national care model in which a nurse, supervised by physicians using the same guidelines used during regular hours, conducts standardized telephone triage, and physicians are always onsite (Smits et al., 2017). In addition, all PCCs can conduct urine and glucose testing and a growing number also offer radiology and routine lab tests (Rutten et al., 2017). Consumer financial incentives also contribute to the use of PCCs as an ED alternative (Kremers et al., 2019). Until an annual cap is reached, consumers pay relatively high deductibles for ED self-referrals (€357 to €875 in 2015) to self-referrals (Baier et al., 2019).

Quality of care provided in PCCs is generally considered to be good. A 2017 study found that patients were either correctly triaged (79%) or incorrectly triaged to higher level of care (12%) and concluded that PCC care is “reasonably efficient and safe” (Rutten et al., 2017). Average waiting time is 30 minutes, with 90% of all patients needing a home visit reached within an hour, and 70% of those with life-threatening conditions reached within 15 minutes (Monitor, 2014). Finally, as PCCs resulted in declining OOH call hours from 19 to 4 hours per week, GPs report greater job satisfaction around work–life balance (Monitor, 2014).

As reported by Smits et al. (2017), patient contacts with PCCs have been increasing since 2005, a large portion of which (45%) are considered to be nonurgent medically. GPs are concerned about the increasing workload and have made a number of improvement suggestions. These include better triage and more telephone doctors to support nurses, higher consumer copays/deductibles, improvements in daytime access to GPs, and more attention to underlying reasons for higher utilization in communities with more women, low-income households, and non-Western immigrants.

*Emergency Care Access Points (ECAP)*

Increasingly, PCCs are located near hospitals or in formal collaborations with EDs (Smits et al., 2017), with the goal of redirecting non-urgent ED self-referrals to GPs (Thijssen et al., 2016). These collaborations typically take the form of Emergency Care Access Points (ECAP) in which all patients seeking emergency care enter (usually a hospital) through a single access point and are triaged to either GP or ED care (Gils-van Rooij et al., 2015). By 2015, at least 71 of the country’s 122 PCCs were part of an ECAP (Smits et al., 2017).

Data are mixed about the impact of ECAPs on ED utilization. A 2011 study found a 22% decrease and a 2013 study a 13% decrease in overall ED admissions (Smits et al., 2017). Similarly, a 2016 study, while confirming the association between the Netherland’s well-developed primary care system and overall ED length of stay (LOS), found no difference between regular EDs and ECAPs (Thijssen et al., 2016). Further, despite PCC and ECAP alternatives, as well as financial incentives to avoid EDs, as many as 23% of ED patients were self-referred in 2016 (Kremers et al., 2019). Evaluations clearly show, however, that patients were less likely to be treated by the ED in ECAP arrangements, with GPs caring for 75% of self-referred patients who would otherwise have gone to the emergency department (Smits et al.., 2017).

Kremers et al. (2019) note a slight decrease in overall ED visits between 2013 and 2016 but point to a 14% increase over this period in visits by patients older than 65 years as particularly concerning given that their share of the population had increased by only 8%. Despite the pressure on EDs associated with caring for a growing elder population, as well as possible supply-induced effects on ED demand (Wackers et al., 2023), there are indications that ED use is appropriately focusing on patients in need of acute care. A 2013 study found that patients using ECAPs were older and more likely to be triaged to the ED and to be admitted to hospital (Smits et al., 2017). Wackers et al. (2023), using 2017 data, found that ECAPs were associated with significant increases in hospital admissions and total costs—a finding corroborated by Kremers et al. (2019) showing an increase from 33.2% to 35.5% in hospital admissions between 2012 and 2015.

**Conclusion**

The Netherlands benefits from some of the lowest ED utilization rates among Western countries, chiefly as a result of its strong primary care system. Despite a number of innovations and organizational changes, however, ED utilization rates are rising—at least in part due to the country’s growing number of elders with increasingly complex medical issues. Suggestions for improving care for this population in ways that avoid both ED visits and hospital admissions include: improving skill set of GPs on handling emergency care in community care settings; increasing the number of emergency room specialists; increasing use of multidisciplinary care teams, training physician superspecialists (as opposed subspecialists) and implementing care pathways specific to chronic conditions (Smits et al., 2017; Kremers et al., 2019).

**Questions for the expert**:

Dutch PCCs apparently triage patients appropriately and provide good overall care. Given the fact that they have had access to patients’ daytime electronic health records only since 2017—and only with explicit patient permission (Smits et al., 2017)—how important is EHR access to successful ED diversion strategies?

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