Tackling the increasing administrative burden of sickness certification in Europe: a literature study.

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Abstract

Context

Europese huisartsen ervaren de dagelijkse administratieve overlast binnen hun praktijk als een groeiend probleem en een significante demotivator voor hun verdere toeweiding aan het vak. Verschillende studies hebben inderdaad al goed kunnen aantonen dat papierwerk een duidelijk negatief effect heeft op het mentaal welzijn van huisartsen. De vergrijzende bevolking heeft steeds vaker ingewikkelde dossiers die een frequentere opvolging vereisen. In combinatie met een Europees tekort aan huisartsen zorgt dit ervoor dat overbodige administratie steeds meer druk zet op de huidige geneesheren. Medische administratie kent bovendien veel verschillende vormen. Om zo systematisch mogelijk te werk te kunnen gaan, beperken wij ons in deze studie enkel tot het ziekte certificaat, dat naast bureaucratische implicaties ook belangrijke socio-economische gevolgen teweeg brengt.

Onderzoeksvraag

Hoe kampen de verschillende Europese landen met de administratieve belasting door ziekte-attesten en welke oplossingen werden al ingevoerd om dit te verhelpen? Welke lessen kunnen wij uit hun beleid trekken?

Methode

Deze masterproof is een literatuurstudie over de verschillende methoden en strategieën die in Europese landen worden gebruikt om arbeidsongeschiktheidsattesten te reguleren. Er bestaat hierover weinig wetenschappelijke literatuur. De zeldzame artikels die dit probleem wel aankaarten zijn dikwijls in de landstaal geschreven. Wij beperkten ons hierdoor tot de Engelstalige, Nederlandstalige, Duitstalige en Franse artikels om vertaalproblemen te vermijden. De studies werden verzameld doormiddel van het gebruik van MeSH-termen (Medical Subject Headings), nadien werd ook extra literatuur geraadpleegd via de geciteerde literatuur (snowballing methode). Ten slotte maakten wij ook gebruik van verscheidene websites, die meer informatie konden geven over de locale legislatuur.

Resultaten

De procedures om arbeidsongeschiktheid te certifieren blijken zelfs binnen de Europese Unie bijzonder heterogeen te zijn. Elk land heeft zijn eigen regels omtrent zelf-certifiëring, maar ook omtrent het recht op ziektevergoedingen, de plichten van de patiënten, de noodzakelijke documenten en uiteindelijk ook de controles die uitgevoerd dienen te worden tijdens een medische afwezigheid. Het is hierdoor niet eenvoudig systematische vergelijkingen te maken tussen de verschillende landen en methodes.

De meeste studies komen uit Scandinavië, meer bepaald uit Zweden en Noorwegen. Beide landen kampten in het verleden met zeer hoge arbeidsongeschiktheidscijfers. De overheid van beide landen nam hierdoor maatregelen om mensen terug aan het werk te zetten en om de secundaire belasting van hun huisartsenpraktijken te verminderen. Sindsdien hoeven werknemers pas na enkele dagen naar hun arts te gaan maar verliezen de patiënten in Zweden systematisch het dagloon van hun eerste dag afwezigheid.

Een ander land waar veel onderzoek werd verricht naar ziekte-certifiering, is het Verenigd Koninkrijk. In 2010 werd de “Fit Note” ingevoerd, een document-formaat dat het attesteren van ziekte voor de huisartsen significant vereenvoudigde. Bovendien hoeven Briste patiënten de eerste 7 dagen ook niet langs hun huisarts te gaan.

Ten slotte hebben Nederlandse huisartsen geen last van deze administratieve overlast, aangezien deze taak volledig overgenomen werd door bedrijfsartsen. De rationale hierachter zijnde dat

huisartsen te weinig kennis hebben over de werkomgeving van hun patiënten om te kunnen oordelen welke taken wel of niet ondanks de medische aandoening uitgevoerd kunnen worden.

Conclusie

Uit onze literatuurstudie werd duidelijk dat het ziekte-attest in alle Europese landen voor significante frustraties of problemen zorgt. Verscheidene landen gebruikten verschillende methoden om dit probleem aan te kaarten. Wij weerhouden dat een uniform ziekte-attest, een betere takenverdeling binnen de gezondheidszorg en ten slotte ook een grotere verantwoordelijkheid bij de patiënten zelf (al dan niet gekoppeld aan financiële repercussies) interessante denkpistes zijn voor voor een reductie van de administratieve overlast bij huisartsen.

Tackling the increasing administrative burden of sickness certification in Europe: a literature study

Introduction

The ever-growing western population and the subsequent increased chronic care for the elderly have been putting significant strain on medical professionals across the West. Not only do the older patients require frequent care, their diseases and related treatments have been getting ever more complex and multi-disciplinarian.(1,2) To make matters more troublesome, the already overburdened general physicians (GPs) in Europe and North America (Family Medicine) are facing increased stress and job dissatisfaction due to bureaucracy and loss of autonomy. (1–6) This is due, in part, to the growing administrative burden that these physicians are expected to bear. Numerous studies in Europe and the US have shown a trend of declining motivation among GPs, with many quitting their practices or reducing their working hours as a result. (3,6–10) The National Health Service (NHS) in Britain is struggling to keep up with a rising demand of general medicine, and there has been a consistent decrease in the inflow of motivated students over the last decade compared to the outflow of retiring GPs. (1,11) This trend seems to be a growing problem across the European countries.

Bureaucratic work as a source of job dissatisfaction in medicine has been studied intensively. (1,2,4) Physicians find the administrative burden to be ungrateful work, consuming valuable time that could be spent on direct patient care. Another common frustration is that increasing paperwork is not being matched by a corresponding increase in financial compensation. (2)

In the US, a survey conducted by Medical Economics magazine found that 44% of respondents quoted paperwork as being a significant demotivator, closely followed by difficulties using electronic health records (EHRs). Surprisingly, the implementation of EHRs has increased the administrative burden, with 61% of respondents indicating that these systems negatively impact efficiency; over half of them feel that these software solutions negatively affect the relationship between patient and GP. (12)

Western countries are exploring strategies to decrease the administrative burden on general practitioners (GPs) to maintain their motivation and retain them longer. We will analyse the current literature to understand and compare European countries' specific approaches to these bureaucratic hurdles.

Identifying the problem

The first challenge of this paper was to identify a well-defined administrative problem that would be consistently discussed and studied across the numerous western countries.

Prior Authorisations (PAs) pose new challenges to the physicians of North America, more specifically in the United States. These PAs are documents made by insurance companies for physicians to request reimbursement for routine procedures before they have taken place. The rationale behind this emerging additional documentation is to limit the amount of unjustified expensive treatments. Many physicians, however, feel that these requests are time consuming and show a lack of trust between insurance companies and themselves. The increasing number of PAs has become a common annoyance for physicians across the United States and is seen as adding more bureaucracy to the system. (12–14) Whilst prevalent in the US, these PAs are uncommon inside of the European Union and therefore unfit for this article.

The issue of "umbrella certificates" has emerged as a growing concern amongst European physicians. These certificates, which are requested by employers, sports organizations, insurances, or various other instances serve no medical purpose but instead allow the requestor to shift or exempt liability for future incidents. The certificates in question vary greatly in nature, from evaluating a patient's physical fitness prior to a sporting event to certifying a child's ability to use the school bathroom during class. These declarations generally don't have any medical value. The heterogeneity of the certificates

and the lack of standardization make categorization and comparison across other countries a challenging and inaccurate task. More so, the over-reliance on anecdotal information adds to the challenge of understanding the full scope of the issue. This administrative redundancy has been continuously tackled by various organizations, such as Domus Medica in Belgium or the Conseil National de l'Ordre des Medecins in France. (15–17)
Finally, we found sickness certifications to be a fitting administrative document to evaluate across several nations, as these have already been studied by both medical as well as financial researchers. Indeed, the burden on society is much more significant for these documents. In 2019, the Belgian Government allocated 22,8 billion euros on sick leave and unemployment benefits accounting for approximately 9.2% of the federal government's annual expenditures. (18) In Ireland, illness related benefits amounted to 2.5 billion euros. (19)
In Norway, over 11% of the population between 18 and 66 years old is on disability benefits, well above the European average of 6%. (20,21)
On a European scale, the governments spend an average of 28,1% of their annual budget on social protection, of which about 20-25% is used to pay sick leaves or unemployment benefits. (22)
This seemingly insignificant sickness certificate therefore plays a major role in the future of healthcare in western civilisations: not only does it demotivate medical professionals, but inadequate use of this documentation also has a significant impact on the countries' expenditures. Each government is developing its own strategies to tackle this growing problem.
In this article, we shall therefore compare different types of sickness certification procedures across Europe, studying today's shortcomings and proposed solutions. The goal of this paper would then be to suggest different strategies to tackle this administrative problem.

Methods

We consulted Pubmed, Google Scholar and KULeuven databases using various combinations of the following keywords: sickness certification, sick leave, fit note, administrative burden, medical certification, general medicine, general practitioners, primary care physicians, workload, job satisfaction combining these keywords with several country names.
In this study, we limited our analysis to English, French, German and Dutch academic articles conducted in Europe and North America. Our initial screening process involved evaluating articles based on their title relevance, publication date, and accessibility. We classified articles into two categories, namely those that focus on the implications of paperwork on job satisfaction and those that examine the sickness certification process or the impact on society. Furthermore, we employed a snowball sampling technique by scanning through the references and citations in the relevant articles to identify additional relevant literature.
As the body of academic literature related to our research question was rather limited(23), we expanded our scope to include non-academic sources such as news sites and magazines. We utilized Google Translate to render non-English sources into English.
We examined the procedures required to certify sickness for each country, as well as the type of documents used to do so.

Results

Belgium

In Belgium, it is customary for employees to visit a physician when they become ill. (24) Indeed, until recently, most employers required a sick certificate from the first day of absence. Despite this, there is no standardized format or certification procedure for these sick notes. Companies may require a specific language, such as French or Dutch, or a specific format based on the external medical inspection organization they use, such as Medex or Certimed. Furthermore, government employees, such as police officers, teachers, or military personnel, require their own unique set of documents.

(cfr. Figures 5-8 in addendum) While organizations such as Domus Medica (16) have been advocating for a simplification of the sick note process, they have faced political resistance and bureaucratic obstacles.
Interestingly, during the writing of this paper, a new law was passed allowing employees from middle- to large-sized companies to take three individual sick leaves without needing to provide a physician's certification; only if the company has a workforce greater than 50 people. (25) Anecdotal evidence suggests that employees still consult their physician despite these new changes.
In Belgium, employers are required to continue paying their employees' wages for the first month of absence, after which social security takes over. The patient then receives 60% of their last monthly income. For this transition, the Belgian physician must fill out a subsequent social security-specific document. (26) Failure to do so results in a significant loss of income for the patient, the importance of this second medical certificate can therefore not be neglected. As is the case with the initial sickness certification, a wide variety of documents exist, depending on the patient's insurance, further increasing the administrative burden on general practitioners.
Most Belgian GPs work in private practice and are paid per consultation. This is seen as a factor hindering negotiations with their patients. Indeed, doctors in private practice are more inclined to yield to avoid having their patients choose for another practitioner, resulting in a decreased income. (24,27,28) More so, doctors fear to harm their relationships with their patients by being too strict.

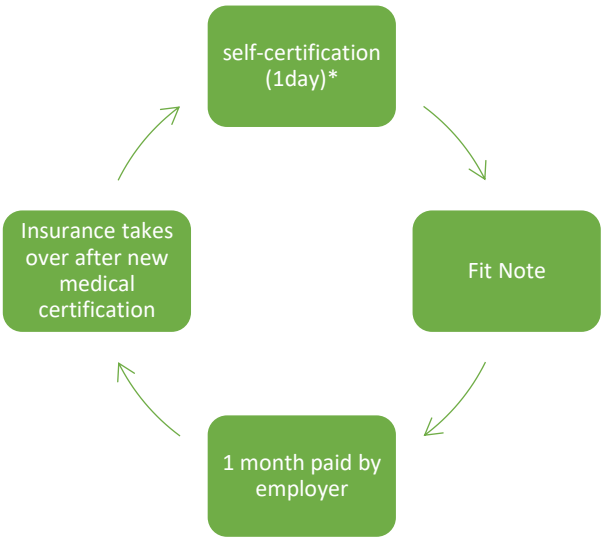

Figure 1: certification process in Belgium (self-certification only possible 3 times per year)*

Netherlands

The Dutch government, because of excessively high disability benefits and sickness absence in the past (28), recently underwent a shift in perspective, moving from a "verzorgingsstaat" (a society that prioritizes care for the sick and disabled) to a "participatiesamenleving" (a society where everyone is expected to participate as much as possible within their own limitations). This change placed a greater emphasis on individual responsibility for seeking re-integration or adapted work, rather than solely relying on the right to social benefits. Despite these changes, the percentage of disability benefits recipients remains relatively high (8%). (28)
In the Netherlands, general practitioners (GPs) do not play a significant role in certifying sickness. Instead, this task has been almost entirely transferred to company doctors, also known as "bedrijfsartsen." These healthcare professionals have a deep understanding of the workings of their respective companies and are therefore better equipped to determine what work can or cannot be done by the employee. As a result, GPs in the Netherlands can focus more on direct patient care and

do not have to dedicate significant time to administrative tasks such as writing sickness certificates. This approach has been successful in reducing the administrative burden on GPs and has been viewed positively by healthcare professionals and policymakers in the Netherlands.(28,29) In the Netherlands, employers can instore waiting periods of up to two days, where the employee doesn't receive any form of compensation. The rationale behind the measure is to discourage people from taking unjustified absences. Some critics point out, however, that this might motivate employees to prolong their sick leave. (28)



Figure 2: certification process in the Netherlands

France

In France, general practitioners are responsible for issuing medical certificates for patients who require sick leave. This certification is necessary for patients to receive compensation for their absence from work due to illness. However, the administrative burden of this task has become a contentious issue for many general practitioners in France. (30–32)

If a French employee is unable to work due to illness or injury, he must visit a doctor within 48 hours to obtain a sickness certificate, also known as an "arrêt de travail". This certificate serves as proof that the employee is unable to work and is necessary to receive compensation from the social security system. Furthermore, for absences of more than 21 days, the employee must obtain a "long-term sickness certificate" ("arrêt de travail prolongé") from their attending physician or a specialist. (33) Researching French news sites reveals a broad discontent amongst French physicians, who actively demand measures be taken to ease the administrative burden in a country that already has troubles retaining its physicians. (30–32,34) The sick notes employed by French GPs are also relatively complex compared to those issued by other countries. (cfr. Figure 5) The rules regarding sickness certification, the time frames involved as well as the types of available compensation are painfully complex in France, featuring a lot of exceptions and sidenotes.

In recent years, the French government has introduced several reforms aimed at reducing healthcare costs, including measures to limit the length of sick leave and to encourage earlier return to work. These reforms have led to increased pressure on general practitioners to certify patients as fit to work, even if they feel that their patients need more time to recover fully. On the other hand, the COVID pandemic allowed online consultations to take place, which in turn created lower barriers for patients to ask for additional sick leave, thus adding more certification to the process. (30–32)

In addition to this, general practitioners in France are also required to fill out numerous other administrative forms and reports, which can be time-consuming and complex. This can lead to frustration and burnout, as well as a sense of being undervalued and overworked. Almost half of all the general practitioners in France suffer from symptoms that could suggest a burn-out. Of those, an overwhelming majority declares time-intensive administrative burden to be the major cause. (35)

As a result, many general practitioners in France are calling for a reduction in the administrative burden associated with sick leave certification and other administrative tasks. They argue that this

would allow them to focus more on providing quality care to their patients and would help to alleviate the stress and burnout that many doctors are experiencing.

Germany

The German healthcare system is known for its complexity and bureaucracy, and this can be particularly challenging for general practitioners who are already managing a high workload. Many doctors feel that they are spending an increasing amount of time on administrative tasks, such as filling out forms, submitting reports, and processing paperwork, rather than focusing on patient care. Germany (and Austria) also struggles to motivate young students to follow careers in general medicine, and efforts are being made to tackle this issue. (36)

This administrative burden is particularly acute when it comes to issuing sick leave certificates, as doctors are required to provide detailed and accurate information about the patient's condition and the expected duration of the illness. (37)

The process for obtaining a period of sickness leave begins with a visit to the patient's doctor on the very first day of absence. The doctor will assess the medical condition and complete a medical certificate (Krankmeldung), which includes the patient's personal information, start and end dates of the absence, and primary diagnosis. The employer must review the certificate and approve the absence.

The doctor will then provide a Genesungsmeldung at the end of the period to confirm the patient's recovery. During the incapacity, the employer pays the salary normally for the first six weeks and then the health insurance pays sickness benefit, which is slightly lower. The German physician certifies the sickness leave through this process. (38) For longer periods of sickness, German patients can be referred to special rehabilitation clinics. These facilities, also known as "Rehakliniken," are medical facilities that specialize in providing comprehensive rehabilitation services to patients with chronic illnesses, disabilities, or injuries. The goal of rehabilitation clinics is to help patients regain their physical and mental abilities, so that they can return to their daily lives as quickly and effectively as possible. (29) Overall, we found the German system of certification rather complex

England

The National Health Service (NHS) in the United Kingdom passed a reform to change sickness certification into "fit notes" in 2010. The change was part of a larger effort to promote a more proactive and supportive approach to managing sickness absence in the workplace. Also, before the introduction of the NHS's fit note in 2010, physicians in England had to rely on a multitude of documents. Since then, certificates such as Med 4, Med 6 and RM7 have been abolished and simplified into one single and standardized document called the "fit note". (39) More so, employees are not required to provide a certificate during the first 7 days of absence. (40) During the first 3 days of absence, the employee doesn't receive statutory sick pay (SSP), except if the employee needs to stay at home because of COVID-19 or if he already received SSP within the last 8 weeks and already had a 3-day waiting period. (41) The main purpose of the fit note, also known as the "Statement of Fitness for Work," is to provide information about an employee's fitness for work and to encourage the employee's early return to work, if appropriate.
The adoption of the fit note was prompted by a recognition that long-term absence from work due to sickness or injury can have significant economic and social costs for both employees and employers. The fit note was introduced to promote the positive idea of "return to work" and to encourage early and sustained return to work for employees who are off work due to illness or injury. (42)

The effects of the fit note have been the subject of ongoing research and evaluation. Initial findings suggest that the fit note has been well-received by doctors and employers, and that it has had a positive impact on the rate of return to work for employees who are off work due to illness or injury. (39,43)
Similarly to the Dutch system, the adoption of the fit note reflects a broader shift in attitudes towards sickness and disability, and towards the importance of promoting early and sustained return to work. The fit note represents a positive step forward in the management of sickness and disability in the workplace and is expected to have a positive impact on the economic and social outcomes of both employees and employers.

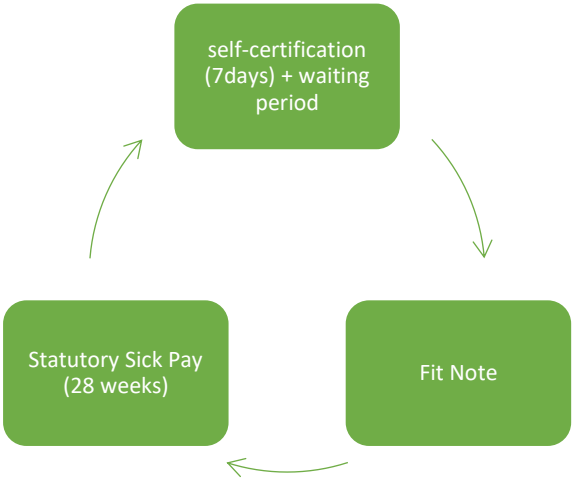

Figure 3: certification process in England

Scandinavia

The issue of sickness certification has been studied and discussed more vigorously in Sweden and Norway.
Compared to other countries in Europe, employees in Scandinavia carry more responsibility when it comes to self-certification and reintegration. In fact, Swedish people need a sick note after 7 days of disease.(44,45) However, the very first day of every sick leave is always a 'qualifying day', which means that the patient doesn't receive benefits for that specific day. The employer is responsible for the wages during the first two weeks, after which social benefits are being paid by the Social Insurance Office (SOI). Employees are then entitled to 80% of their normal wages, with a maximum of 30.000€/year. (28)
Most of the GPs in Sweden work in primary health care centres and have fixed salaries. (27)

This is slightly different in Norway, where there isn't any qualifying (or waiting) day and benefits represent 100% of their habitual wages with a maximum amount of 62.000€/year. However, employees will need to provide a medical certificate after 3 or 8 days, the latter being the case when the employer is part of the "Agreement on a more Inclusive Working Life" initiative. (21,28)
The "Agreement on a More Inclusive Working Life" (Includerende Arbeidsliv) is a national agreement in Norway aimed at reducing sickness absence and promoting inclusion in the labour market. It was introduced in 2001 and is a voluntary agreement between the government, employers' organizations, and employee organizations. (21,46)
One of the key features of the IA agreement is the introduction of a three-day self-certification period for employees who are not covered by the agreement. If a company is a part of the agreement, then the self-certification period is eight days. This system allows employees to take a short period of sick leave without needing a doctor's certificate, which is intended to reduce the workload on GPs.
The Includerende Arbeidsliv was developed to tackle high disability rates, with 11% of the total working population (between 18 and 66 years) receiving disability benefits. Norway has the highest percentage of citizens on a benefits program amongst European and OECD countries. Unfortunately, the effect of this Includerende Arbeidsliv has been disappointing, with benefits remaining relatively unchanged. (20)
In Norway, most GPs are self-employed. Their income stems from a combination of fee-for-service as well as a fixed monthly payment. GPs in Norway experience more difficulty refusing unjustified

sickness certificates than their Swedish colleagues, as patients might threaten to change doctors, resulting in a lower income for the practitioner. (47–49)

Malta

In Malta, employees need to provide a medical certificate after three days of sick leave. Although not compulsory, employers can still ask for medical certificates for these short absences. (50) Older sources, written before Malta's entry into the European Union in 2004, suggest that a sickness certificate was necessary from the very first day and that this standard procedure was criticized because of the significant administrative burden on family doctors. Nonetheless, it is interesting to note that doctors spent a comparable amount of time on sickness certification as other European colleagues, although the duration of absence were significantly shorter. This could be explained by the previous requirement to provide a sick note from the very first day, even for minor illnesses. (51,52)

Italy

Before a reform in 2008, Italian public employees were sick approximatively 15 days a year. (53) To tackle this issue, the administration proposed a set of new laws that significantly reduced sickness compensation (10-20% during the first 10 days) whilst concurrently increasing medical controls. These few simple changes effectively reduced short-term absences by 53%. This study suggests that a negative impact on renumeration as well as more frequent inspections significantly impact absenteeism, and therefore also administrative tasks in the general practice. However, the study suggests that females and patients who were more likely to suffer financially from these absences were more likely to avoid sickness spells. (54) This opens the door towards further studies and gender and social equality in sickness certification.

	Issuer	self-certification period	waiting period	standardized document
Belgium	GP	1 (but only 3 times a year)	No	No
Netherlands	company doctor	N/A	1-2 days	-
France	GP	0	No	Yes
Germany	GP	0	No	-
England	GP	7 days	3 days	Yes
Norway	GP	3-8 days	No	Yes
Sweden	GP	7 days	1 day	Yes
Malta	GP	3 days	No	-
Italy	GP	0 days, but reduction of wages by 10-20% from day 1	No	-

Figure 4: how do systems of studied countries compare to each other? (GP: General practitioner; or other primary treating physician such as specialists)

Weaknesses

Evaluating the administrative burden of sickness certification across several countries has proved to be more complex than initially thought, for several reasons. First, little research has been done on this subject and if so, often in the national language of the country. Most English articles cover the United Kingdom, Norway, or Sweden but few other countries have been studied intensely. Also, the challenges produced by this certificate can be caused by numerous different factors. The lay-out of these notes, the specific procedures that need to be followed by physicians or GPs and the frequency at which patients must consult their GP all influence the administrative burden experienced by physicians in the West. Finally, government legislation reforms happen frequently, such as was the

case with Belgium during the writing of this paper, which means that articles can get out-dated and inaccurate rapidly.

Conclusion and final remarks

The administrative burden on European general practitioners is a well-established problem that is affecting the motivation of physicians to practice medicine. Various studies have consistently demonstrated that an increasing number of administrative tasks, including writing sickness certificates, is reducing the amount of time that GPs can dedicate to direct patient care. This trend is prevalent in most Western countries, and it poses a significant challenge to healthcare systems, particularly in terms of maintaining the quality of care and patient outcomes but also in terms of retaining physicians.

By contrast, little research has been conducted to try and provide evidence-based solutions to this growing problem. A notable exception is the British Fit-Note, adopted by the NHS in 2010, that has been extensively studied during the last decade. It has been widely viewed as a positive step forward, both improving economic and social outcomes as well as reducing the administrative complexity in the general practice. However, physicians often lack the necessary information to identify which tasks can still be performed by the employee, as every job has its own specific requirements.

To solve this problem, the Dutch healthcare system doesn't rely on its GPs to certify sickness. Indeed, this task has been almost entirely transferred to company doctors, also known as "bedrijfsartsen". These professionals have a thorough knowledge of the company's workings and are therefore much more adequate to determine what work can or can't be done anymore. As such, GPs in the Netherlands can dedicate more of their time towards direct patient care.

Several articles also identified electronic medical records (EMR) as being additional sources of frustration and inefficiency. (55)Improving the ergonomics of these programs to make administration less time-consuming, standardized, and measurable could also be an easy implementation to help but also further study this problem of administration.

In conclusion, addressing the administrative burden on GPs requires a multifaceted approach that considers the unique challenges and contexts of individual healthcare systems. Based on our research, we believe that several changes can rapidly and efficiently reduce the administrative burden experienced by general practitioners.

First of all, countries could adopt a mix of the Dutch and British model where company doctors ("bedrijfsartsen") can more accurately evaluate the disabilities of their workers and which tasks can still be performed (i.e., the Fit Note).

Furthermore, 'waiting days' implemented in the Netherlands and Sweden could reduce unjustified absences. Italy adopted a slightly different approach, without waiting days but with a decreased salary from the very start of absence.

Food for Thought

Induced Demand: it is a common phenomenon in transportation planning that adding new lanes to existing roads will briefly reduce congestion before returning to a previous equilibrium (aka. Lewis-Mogridge position) because it will motivate drivers to use that road instead of looking for alternative ways of transportation. Even more so, Braess's law suggests that adding lanes or roads can sometimes worsen traffic.

In comparison, adding more trained personnel to handle the increasing paperwork will not reduce the workload. It will simply shift these cumbersome tasks to other people instead of tackling the source problem: namely over-documentation. As a result, the cost of healthcare will have to increase to cover the wages of additional employees, who will in turn receive more administrative work until their capacity has been saturated. (**Parkinson's Law** of public administration)

Finally, standardizing sick notes into one single document, such as has been done in the United Kingdom, can remove some of the bureaucratic complexity experienced by many physicians today.
Some governments have suggested training and financing supportive staff to alleviate the administration currently being performed by physicians. However, we strongly advise against such counterproductive measures. Indeed, we believe that this implementation would only shift the issue of over-documentation to other people. Delegating these tasks towards para-medical staff would eventually encourage private as well as governmental instances to increase bureaucratic tasks on the long run. (cfr. Info box on "Induced Demand and Parkinson's Law") It is crucial, therefore, that governments find ways to systematically reduce the amount of documentation required to correctly practice Medicine, and to find mechanisms that prevent the creation of other new documents in the future. Ultimately, addressing the administrative burden on GPs is crucial to ensure the sustainability and effectiveness of healthcare systems in the face of increasing demand and limited resources.

Addenda

Addendum 1: the complexity of Belgian sickness certificates

In Belgium, physicians are required to fill out different types of sickness certificates, depending on the organisation or company for which the patient is working. It is not uncommon for patients to forget to mention the specific requirements of their workplace. Because of this, it is not unusual for patients to contact their physician on a later date, to rectify the necessary documentation. The Military, the Police, the Government, teachers, etc. all require different formats. A lot of efforts are being made to lobby for one single format for all concerned organisations. (16)



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In te vullen **VOOR** de consultatie door de **PATIENT**

Naam: Voornaam:
Graad: Stamnummer:
Eenheid: Geboortedatum:
VERBLIJFPLAATS patiënt gedurende de arbeidsongeschiktheid
Straat: Nr/Bus:
Postnummer: Gemeente:
Telefoon/GSM 1: Telefoon/GSM 2:

In te vullen door de **BEHANDELENDE ARTS**

☐ Onderhavige consultatie kan om medische redenen **niet in de praktijkruimte van de arts** plaatsvinden

Onderstaande is te wijten aan: (indien nodig kan onder medisch geheim een diagnose vermeld worden)
☐ beroepsziekte
☐ arbeidsongeval datum: _____
} waarbij volgens mij het medisch verband tussen de aandoening en het oorzakelijk verband zoals verklaard door de patiënt:
☐ mogelijk is ☐ niet mogelijk is ☐ niet kan bepaald worden

☐ de patiënt is **gehospitaliseerd** vanaf datum: _____ (met arbeidsongeschiktheid gedurende de hospitalisatie)
☐ de patiënt is **ontslagen** uit het hospitaal op datum: _____

☐ de patiënt is **arbeidsongeschikt**
vanaf: (Max 24 uur terugwerkende kracht) datum: _____
tot en met: (Max 30 kalenderdagen, behalve na hospitalisatie) datum: _____

☐ betrokkene **MAG** de verblijfplaats verlaten
☐ betrokkene **MAG NIET** de verblijfplaats verlaten
} gedurende de duur van die **arbeidsongeschiktheid**

stempel arts | Ondergetekende, dokter in de geneeskunde, verklaart deze patiënt te hebben onderzocht en bovenstaande te hebben vastgesteld. | handtekening arts: datum: _____

MEDISCH GEHEIM (indien ingevuld) MAG ENKEL GEOPEND WORDEN DOOR DE ARTS BESTEMMELING
↑ onder deze lijn blijven ↑ ↑ onder deze lijn blijven ↑

HIER DICHTKLEVEN OF DICHTNIETEN

DIAGNOSE BEHANDELENDE ARTS:

MEDISCH GEHEIM INDIEN INGEVULD

HIER PLOOIEN >> | << HIER PLOOIEN

In te vullen door de **BEHANDELENDE ARTS**

stempel arts | Ondergetekende, dokter in de geneeskunde, verklaart deze patiënt te hebben onderzocht en bovenstaande diagnose te hebben gesteld. | handtekening arts datum: _____

HIER PLOOIEN >> | << HIER PLOOIEN

HIER DICHTKLEVEN OF DICHTNIETEN

Cat Nr 1.2571 - NSN 7540-70-050-0100

Figure 5: Medical certificate for military personnel

MEDISCH GEHEIM **MEDISCH GETUIGSCHRIFT** MEDISCH GEHEIM

1 NAAM : ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

VOORNAAM: ☐☐☐☐☐☐☐☐☐☐☐☐☐ Ident: 4 4 - ☐☐☐☐☐ - ☐☐

Verblijfplaats tijdens de herstelperiode : (indien ander dan de woonplaats)

Straat : ..... Nummer :..... Bus : .....

Postcode : ..... Gemeente : .....

2 **DIAGNOSE (Indien letsel ledematen, links / rechts aanduiden) (Invullen in drukletters)**

CODES DPMS

..... ☐☐☐☐ ☐

..... ☐☐☐☐ ☐

..... ☐☐☐☐ ☐

..... ☐☐☐☐ ☐

..... ☐☐☐☐ ☐

3 **Indien de letsels het gevolg zijn van een ongeval (Invullen in drukletters)**

– Oorzaak en vermoedelijke omstandigheden : .....

.....

- Datum van het ongeval : ☐☐ - ☐☐ - ☐☐☐☐

- Arbeidsongeval : ☐ Sportongeval : ☐ Ongeval met derde : ☐ Privé-ongeval : ☐

4 **VOORSTEL TOT ARBEIDSONGESCHIKTHEID**

A **Volledige arbeidsongeschiktheid** Van ☐☐-☐☐-☐☐ t.e.m. ☐☐-☐☐-☐☐

Mag de woning verlaten JA ☐ NEEN ☐

B **Verminderde prestatie tot :** (aankruisen)

☐ 50 % ☐ 60 % ☐ 80 % Van ☐☐-☐☐-☐☐ t.e.m. ☐☐-☐☐-☐☐

C **Ongeschiktheid om bepaalde dienstactiviteiten te presteren** Van ☐☐-☐☐-☐☐ t.e.m. ☐☐-☐☐-☐☐

Codes (0 tot 7) :

☐-☐-☐-☐-☐-☐

Of beknopte beschrijving :.....

.....

5 **HOSPITALISATIE**

Naam en adres van het ziekenhuis :.....

.....

.....

Datum opname : ☐☐ - ☐☐ - ☐☐☐☐

Datum ontslag : ☐☐ - ☐☐ - ☐☐☐☐

6 **BIJ OVERLIJDEN** Datum : ☐☐ - ☐☐ - ☐☐☐☐

7 Datum onderzoek: ☐☐ - ☐☐ - ☐☐☐☐

Stempel of Naam, Voornaam RIZIV nummer en handtekening van de geneesheer.

8 Datum van aankomst SMD :

Figure 6: page 3 out of 4 of the medical certificate for police officers

Medex

Medisch attest

NIEUW : Dankzij **eMediAtt, het elektronisch medisch attest van Medex**, kan uw arts het attest rechtstreeks invoeren via een beveiligde applicatie. Raadpleeg uw arts of lees onze folder op www.medex.belgium.be.

Uw werkgever doet beroep op Medex om uw afwezigheden wegens ziekte, arbeidsongeval of beroepsziekte te beheren.

- **Als u** ziek bent of een arbeidsongeval/beroepsziekte heeft en **niet kan gaan werken, verwittig dan uw werkgever** zoals bepaald in uw arbeidsreglement.

- **Vraagt uw werkgever een medisch attest om uw afwezigheid te staven?**
  * Neem **dit attest** mee naar uw arts en laat hem het 2de luik invullen.
  * Stuur dit attest op **naar Medex, Medische Attesten, Victor Hortaplein 40 bus 50, 1060 Brussel**

- **Wat doet Medex met deze gegevens?**

Medex deelt uw werkgever mee:
  * dat u een attest heeft ingediend;
  * voor hoelang u afwezig blijft en
  * of u zich voor een eventuele controle al dan niet kan verplaatsen naar een medisch centrum/kabinet arts.

Medex deelt nooit de medische reden van uw afwezigheid mee.

1. Vul zelf onderstaande gegevens in

Rijksregisternummer

Naam

Voornaam

Geboortedatum / /

Werkgever

Naam

Straat Nr Bus

Postcode Gemeente

2. Laat uw arts volgende gegevens invullen

Deze persoon is **arbeidsongeschikt van** / / 20 **tot en met** / / 20

Diagnose

Deze arbeidsongeschiktheid is te wijten aan:

Ziekte Verlenging ziekte

Hospitalisatie Verlenging hospitalisatie

Ziekte te wijten aan zwangerschap

Arbeidsongeval, overkomen op / /
Verlenging

Beroepsziekte, aangegeven op / /
Verlenging

Kan betrokkene zich voor een eventuele controle verplaatsen?

Ja Neen

Gegevens van de arts

RIZIV-nr

Datum
/ / 20

Handtekening en stempel van de arts

Deze gegevens worden door de FOD Volksgezondheid, Veiligheid in de Voedselketen en Leefmilieu opgenomen in een databank voor het beheer van de afwezigheden wegens ziekte. Als u deze gegevens wil inzien of eventueel verbeteren, kan u zich wenden tot de FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, Victor Hortaplein 40/10, 1060 Brussel (Wet van 08/12/1992 tot bescherming van de persoonlijke levenssfeer).

Figure 7: certificate for government employees

Dit document niet gebruiken in geval van arbeidsongeval, ongeval op de weg naar en van het werk of beroepsziekte

CERTIMED
t.a.v. Dienst Onderwijs
postbus 10018
1070 ANDERLECHT
onderwijs@certimed.be

In te vullen door de behandelende arts

VAK I
Ondergetekende, arts verklaart dat Mevrouw/de Heer _____
_____
lijdt aan _____
_____
Het verlaten van de woning is VERBODEN / TOEGESTAAN (1)
Reden arbeidsongeschiktheid:
Ziekte/privaat ongeval/zwangerschapsverlof/profylactisch verlof/opname in het ziekenhuis (1)
Voorgeschreven arbeidsongeschiktheid:
Van ___ / ___ / ___ tot en met ___ / ___ / ___ Stempel + RIZIV nr.
1° attest / ___ verlenging / herval (1)
Datum: ___ / ___ / ___
Handtekening:

In te vullen door het personeelslid

VAK II
Speciale aanvragen: controle aanvragen via gratis telefoonnummer 0800 94 994
☐ Aanvraag reis naar het buitenland van ___ / ___ / ___ tot en met___ / ___ / ___
☐ Aanvraag verlof voor verminderde prestaties wegens ziekte in overeenstemming met het plan van de behandelende arts (zie afzonderlijk document)
☐ Aanvraag langdurig verlof voor verminderde prestaties wegens medische redenen (zie afzonderlijk document ingevuld door de geneesheer-specialist)

VAK III
Stamboeknummer: _____ / Instellingsnummer: _____
Naam en voornaam : _____geboortedatum : _____
Naam en voornaam vermeld op de deurbel:_____
Adres: _____
Postnummer : _____ Lokaliteit :_____
Tijdelijke verblijfplaats tijdens ziekte (periode vermelden): van ___ / ___ / ___ tot en met ___ / ___ / ___
Adres: _____
Postnummer : _____ Lokaliteit : _____

Formaliteiten te vervullen: a) INGEVAL VAN ZIEKTE; b) BIJ BETWISTING VAN DE BESLISSING VAN DE CONTROLEARTS; c) BIJ NIET-HERVATTING OP DE DATUM VOORZIEN DOOR DE CONTROLEARTS: zie keerzijde

De hierboven vermelde gegevens die het personeelslid overeenkomstig de modaliteiten inzake het toezicht op sommige afwezigheden meedeelt aan de medische dienst, evenals de hierboven vermelde gegevens betreffende de behandelende geneesheer, worden opgenomen in een geautomatiseerde verwerking met als doel het toezicht op de afwezigheden te verzekeren. De houder van deze verwerking is Certimed, Gouverneur Roppesingel 25 te 3500 Hasselt. Overeenkomstig de wet van 8 december 1992 tot bescherming van de persoonlijke levenssfeer ten opzichte van de verwerking van persoonsgegevens hebben zowel het personeelslid als de behandelende geneesheer het recht mededeling te verkrijgen van de hen betreffende gegevens uit het bestand evenals het recht de verbetering ervan aan te vragen. Aanvullende gegevens voor verwerking kunnen bekomen worden bij het door de Commissie voor de Bescherming van de Persoonlijke Levenssfeer gehouden openbaar register.

(1) Het onnodige doorhalen

Figure 8: sickness certificate for Flemish teachers

Ongeschiktheidsattest

[CITY], 01-02-2023

Patiënt:
[NAME PATIENT]

Ondergetekende Dokter in de Geneeskunde verklaart de bovenvermelde patiënt(e) heden persoonlijk te hebben ondervraagd en onderzocht waarbij diens verklaringen met de werkelijkheid blijken te stroken en te hebben vastgesteld dat:

De patiënt(e) voor 100% ongeschikt is om .....
van 01-02-2023 t.e.m. 28-02-2023 wegens.....
Dit is een eerste/verlenging van ziekte.
Het verlaten van de woning is.....

Stempel van de geneesheer:	Datum en handtekening:

Figure 9: an example of a 'regular' sickness certificate used in our practice in Belgium.

Addendum 2: the French certificate

Although the format of the French sickness certificate is universal across the country and its different employers, it is nonetheless a very complex document. A lot of variables need to be completed, which means the odds of making administrative mistakes is significant.



cerfa
n°10170*06
PRN-PRE

avis d'arrêt de travail

☐ initial ☐ de prolongation (*)

volet 2, à adresser au service médical (qui le remettra aux services administratifs)

à adresser, dans les deux jours, à l'organisme d'assurance maladie, à l'aide de l'enveloppe M. le Médecin-Conseil

(art. L.162-4-1-1er al., L.162-4-4, L.315-2, L.321-1-5ème al., L. 323-6, L. 376-1, L. 613-20, R. 321-2, R. 323-11-1, D. 323-2, D. 613-19, D. 613-23 du Code de la sécurité sociale, L. 732-4 et 762-18-1 du Code rural et de la pêche maritime)

l'assuré(e) *(voir la notice à destination du patient)*

numéro d'immatriculation

nom et prénom
(nom de famille - de naissance -, suivi, s'il y a lieu, du nom d'usage)

code de l'organisme de rattachement *(voir votre attestation papier Vitale)*

adresse où le malade peut être visité *(si différente de votre adresse habituelle) (1) :*

code postal ville n° téléphone :

bâtiment : escalier : étage : appartement : code d'accès de la résidence :

(1) l'accord préalable de votre caisse est OBLIGATOIRE si cette adresse se situe hors de votre département de résidence

activité salariée ☐ fonctionnaire ☐ profession indépendante ☐ activité non salariée agricole ☐
sans emploi ☐ date de cessation d'activité précisez votre situation *(voir notice ❶)*

l'arrêt prescrit fait-il suite à un accident causé par un tiers ? *(voir notice ❷)* : oui ☐ date non ☐
l'arrêt prescrit fait-il suite à une cure thermale ? oui ☐ non ☐
l'arrêt prescrit est-il en rapport avec l'affection pour laquelle vous êtes pensionné(e) de guerre ? oui ☐ non ☐

(*) si la prolongation de l'arrêt est prescrite par un médecin autre que le médecin traitant ou le médecin qui a prescrit l'arrêt initial, cochez la case correspondante *(voir notice ❸)* :
médecin remplaçant le médecin traitant ou le médecin prescripteur initial ☐ médecin spécialiste consulté à la demande du médecin traitant ☐ à l'occasion d'une hospitalisation ☐
autre cas ☐ précisez et indiquez le motif :

l'employeur

nom, prénom ou dénomination sociale n° téléphone : e.mail :

adresse

les renseignements médicaux *(voir la notice à destination du praticien)*

je, soussigné(e), certifie avoir examiné (nom et prénom) :

• et prescrit un arrêt de travail jusqu'au - *en toutes lettres : (à compléter obligatoirement)* et - *en chiffres* inclus

sans rapport* ☐ en rapport* ☐ avec une affection de longue durée *(voir notice ❶)*
sans rapport* ☐ en rapport* ☐ avec un état pathologique résultant de la grossesse *(voir notice ❷)*
* *sur chaque ligne, une des deux cases doit être obligatoirement cochée*

sorties autorisées : oui ☐ à partir du non ☐
(l'assuré(e) doit être présent(e) à son domicile entre 9 et 11 heures et entre 14 et 16 heures. Voir notice ❸)
par exception, pour raison médicale dûment justifiée, sorties autorisées sans restriction d'horaire :
non ☐ oui ☐ à partir du *(voir notice ❹)*

• et prescrit un temps partiel pour raison médicale du au *(voir notice ❺)(.)*
sans rapport** ☐ en rapport** ☐ avec une affection de longue durée *(voir notice ❶)*
** *une des deux cases doit être obligatoirement cochée*

identification du praticien (nom et prénom)

identifiant

identification de la structure (raison sociale et adresse du cabinet ou de l'établissement)

n° de la structure *(AM, FINESS ou SIRET)*

date signature du praticien

PRN-PRE S3116h

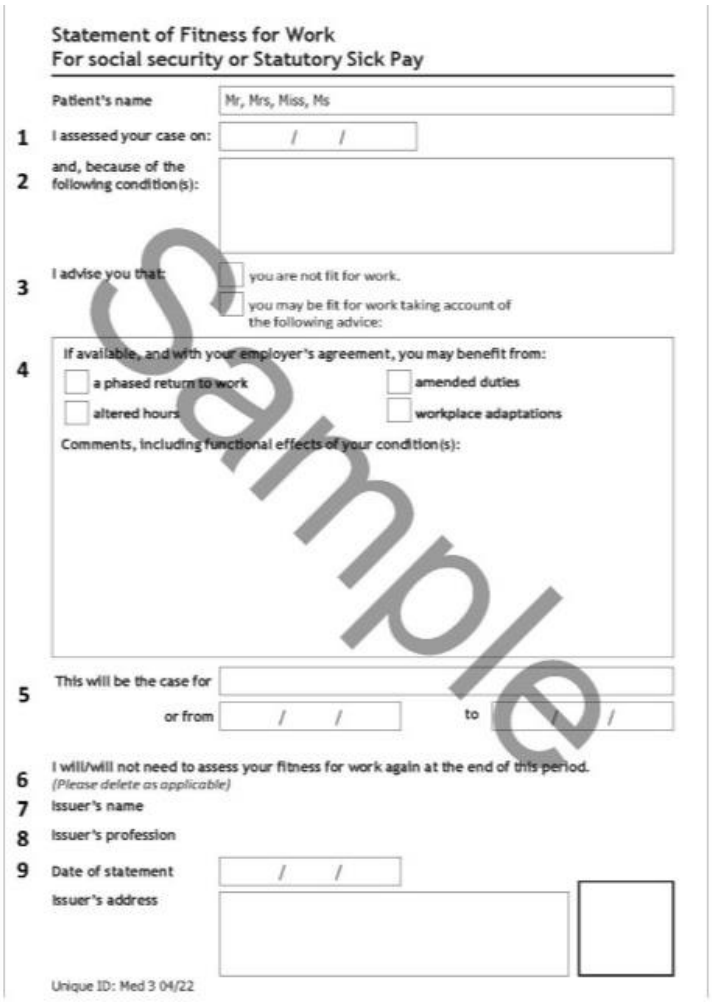
La loi 78.17 du 6.1.78 modifiée relative à l'informatique, aux fichiers et aux libertés s'applique aux réponses faites sur ce formulaire. Elle garantit un droit d'accès et de rectification pour les données vous concernant.
Quiconque se rend coupable de fraude ou de fausse déclaration est passible de pénalités financières, d'amende et/ou d'emprisonnement (articles 313-1 à 313-3, 433-19, 441-1 et suivants du Code pénal et article L. 114-17-1 du Code de la sécurité sociale).

SPECIMEN

Figure 10: page 3 of 5 of a French sickness certificate

Addendum 3: the Fit Note

In 2010, the NHS passed a reform where the new "Fit Note" was adopted (cfr. Fig 11), significantly simplifying the certification of sickness because several forms were removed and combined into a single document (Med 4, med 6 and RM7). British citizens can also self-certify their sickness for up to 7 days, without requiring a doctor's appointment to receive a statutory sick pay. (cfr. Fig 12) On the contrary, employers can also challenge that document in certain cases. (cfr. Fig 13)



Statement of Fitness for Work
For social security or Statutory Sick Pay

Patient's name: Mr, Mrs, Miss, Ms

1 I assessed your case on: / /

2 and, because of the following condition(s):

3 I advise you that:
- ☐ you are not fit for work.
- ☐ you may be fit for work taking account of the following advice:

4 If available, and with your employer's agreement, you may benefit from:
- ☐ a phased return to work
- ☐ amended duties
- ☐ altered hours
- ☐ workplace adaptations

Comments, including functional effects of your condition(s):

5 This will be the case for
or from / / to / /

6 I will/will not need to assess your fitness for work again at the end of this period.
(Please delete as applicable)

7 Issuer's name

8 Issuer's profession

9 Date of statement / /

Issuer's address

Unique ID: Med 3 04/22

Sample

Figure 11: the British Statement of Fitness for Work

HM Revenue & Customs

Statutory Sick Pay (SSP)
Employee's statement of sickness

About this form

Statutory Sick Pay (SSP) is money paid by employers to employees who are away from work because they are sick. Please fill in 'Your statement' below when you have been sick for four days or more in a row.

Your statement

About you

Surname or family name

First name(s)

Title – enter MR, MRS, MISS, MS, or other title

National Insurance number

Date of birth *DD MM YYYY*

Clock or payroll number

About your sickness. *Please give brief details*

What date did your sickness begin? *DD MM YYYY*

What date did your sickness end?
If you do not know, please leave this blank.
DD MM YYYY

The dates you put in these two boxes may be days you do not normally work. If you are sick for more than seven days, your employer may ask you for a medical certificate from your doctor. Medical certificates are also called sick notes or doctor's statements.

What date did you last work before your sickness began?
DD MM YYYY

What time did you finish work on that date?
(enter time in 24 hours)

Was your sickness caused by an accident at work or an industrial disease?

No ☐ Yes ☐

If you answered 'Yes', you may be able to get Industrial Injuries Disablement Benefit. If you want information about claiming this benefit, ask at any Jobcentre Plus office.

Your signature

Signature

Date *DD MM YYYY*

Phone number

What to do next

Please:

- give your completed form to your employer. It will help them decide if you can get SSP
- keep a copy for your own information.

If you can get SSP, your employer will pay you in the same way they usually pay your wages.
If you cannot get SSP, your employer will give you form SSP1 to tell you why. You can use form SSP1 to claim Employment and Support Allowance.

If you disagree with your employer's decision you can ask HM Revenue & Customs for a decision about your entitlement phone our Disputes Team on **0191 225 5221**.

Please turn over

SC2 Page 1 HMRC 11/09

Figure 12: the British self-certification document

Part C: Why you cannot get Statutory Sick Pay

(Employer to complete)

You cannot get SSP on or after

DD/MM/YYYY

This is because:

- ☐ You got Employment and Support Allowance during the last 12 weeks.
- ☐ Your contract of employment has ended or will be coming to an end.
- ☐ You became sick after your contract of employment ended.

  (**Note for employee**: Your employer will have to pay you SSP if they ended your contract solely or mainly to avoid paying SSP).
- ☐ You will soon have been getting SSP for 28 weeks in a row.

  Or, you have had SSP for 28 weeks in total, made up of separate times you were sick that were 8 weeks or less apart.
- ☐ Your average earnings for the 8 weeks before you were sick were less than the Lower Earnings Limit.

  You can find out more by searching for rates and thresholds for employers on **www.gov.uk**
- ☐ You are expecting a baby soon or you have just had a baby.

  Note for employee:
  - if you can get Statutory Maternity Pay (SMP), which is money paid by the employer to women for time off work to have their baby, you cannot get SSP during your 39 week maternity pay period
  - if you cannot get SMP you may be able to get a benefit payment called Maternity Allowance (MA). If you can get MA, you cannot get SSP.
- ☐ You have been sick on and off for more than 3 years. Each time you were sick, it was for longer than 4 days and you did not go back to work for more than 8 weeks before you were sick again.
- ☐ You were away from work because of a trade dispute which started before the first day you were sick.

  Note for employee:
  - you may get SSP if you were already getting it when the dispute began
  - you may get SSP if you can show you were sick and had no direct involvement in the dispute – for example this could be a strike, a walkout or a lockout.
- ☐ You were sick while in legal custody. Or you are now in legal custody or have been given a prison sentence.
- ☐ You were working outside the UK on the day you first became sick and your employer did not have to pay employer's class 1 National Insurance contributions on your earnings on that day.
- ☐ You have not started working for your employer yet.
- ☐ You did not tell your employer about your sickness.

Figure 13: SSP1, to be completed by the employer in the case of a refusal.

Bibliography

1. Marchand C, Peckham S. Addressing the crisis of GP recruitment and retention: A systematic review. Vol. 67, British Journal of General Practice. Royal College of General Practitioners; 2017. p. e227–37.
2. Cecilie O, Birkeli N. Why are doctors opting out of general practice? | Tidsskrift for Den norske legeforening Why are doctors opting out of general practice? Tidsskriftet den Norske Legeforening. 2020 Mar 30;
3. Zuger A. Dissatisfaction with Medical Practice [Internet]. Vol. 350, n engl j med. 2004. Available from: www.nejm.org
4. Woolhandler S, Himmelstein DU. Administrative work consumes one-sixth of U.S. physicians' working hours and lowers their career satisfaction. International Journal of Health Services. 2014 Oct 1;44(4):635–42.
5. Rao SK, Kimball AB, Lehrhoff SR, Hidrue MK, Colton DG, Ferris TG, et al. The impact of administrative burden on academic physicians: Results of a hospital-wide physician survey. Academic Medicine. 2017 Feb 1;92(2):237–43.
6. Sinsky C, Colligan L, Li L, Prgomet M, Reynolds S, Goeders L, et al. Allocation of physician time in ambulatory practice: A time and motion study in 4 specialties. Ann Intern Med. 2016 Dec 6;165(11):753–60.
7. Rao SK, Kimball AB, Lehrhoff SR, Hidrue MK, Colton DG, Ferris TG, et al. The impact of administrative burden on academic physicians: Results of a hospital-wide physician survey. Academic Medicine. 2017 Feb 1;92(2):237–43.
8. Kiolbassa K, Miksch A, Hermann K, Loh A, Szecsenyi J, Joos S, et al. Becoming a general practitioner - Which factors have most impact on career choice of medical students? BMC Fam Pract. 2011;12.
9. Owen K, Hopkins T, Shortland T, Dale J. GP retention in the UK: A worsening crisis. Findings from a cross-sectional survey. BMJ Open. 2019 Feb 1;9(2).
10. Shanafelt TD, Dyrbye LN, Sinsky C, Hasan O, Satele D, Sloan J, et al. Relationship Between Clerical Burden and Characteristics of the Electronic Environment With Physician Burnout and Professional Satisfaction. Mayo Clin Proc. 2016 Jul 1;91(7):836–48.
11. Owen K, Hopkins T, Shortland T, Dale J. GP retention in the UK: A worsening crisis. Findings from a cross-sectional survey. BMJ Open. 2019 Feb 1;9(2).
12. Medical Economics. Medical Economics: What's Ruining Medicine. 2018.
13. Carlisle RP, Flint ND, Hopkins ZH, Eliason MJ, Duffin KC, Secrest AM. Administrative Burden and Costs of Prior Authorizations in a Dermatology Department. JAMA Dermatol. 2020 Oct 1;156(10):1074–8.
14. Robert J. Mills. Health Care Coalition Calls for Prior Authorization Reform. American Medical Association. 2017.
15. Conseil National des Medecins. Simplifications Administratives de l'Exercice Libéral [Internet]. https://sante.gouv.fr/IMG/pdf/331_annexe_certifs_medicaux.pdf. 2023 [cited 2023 Feb 7]. Available from: https://sante.gouv.fr/IMG/pdf/331_annexe_certifs_medicaux.pdf
16. Domus Medica. Project Kafka - Domus Medica [Internet]. Domus Medica. 2023 [cited 2023 Feb 7]. Available from: https://www.domusmedica.be/project-kafka
17. Anouk Buelens-Terryn. Ik pas voortaan voor de plaspas [Internet]. De Standaard Online. 2022 [cited 2023 Feb 7]. Available from: https://www.standaard.be/cnt/dmf20221018_97629591
18. Dieter Dujardin, Thomas Segers, Raphael Cockx, Thomas Roelens. Belgische Begroting 2019 [Internet]. De Tijd. 2021 [cited 2023 Apr 14]. Available from: https://multimedia.tijd.be/begroting/
19. Foley M, Thorley K, Denny M. 'The sick note': A qualitative study of sickness certification in general practice in Ireland. Vol. 18, European Journal of General Practice. 2012. p. 92–9.
20. Wittlund S, Mykletun A, Lorentzen T. Disability pension dynamics in early adulthood: A two-decade longitudinal

study of educational, work and welfare-state trajectories in Norway. SSM Popul Health. 2022 Mar 1;17.
21. Claussen B, Smeby L, Bruusgaard D. Disability pension rates among immigrants in Norway. J Immigr Minor Health. 2012 Apr;14(2):259–63.
22. Eurostat. Social Protection Statistics EU [Internet]. Eurostat. 2022 [cited 2023 Apr 14]. Available from: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Social_protection_statistics_-_overview
23. Letrilliart L, Barrau A. Difficulties with the sickness certification process in general practice and possible solutions: A systematic review. Vol. 18, European Journal of General Practice. 2012. p. 219–28.
24. Politis C. Voorschrijven van Werkonbekwaamheid in de Huisartsenpraktijk. Huisarts Nu. 2014 Jul;43(4).
25. Vlaamse Overheid. Ziek. Wat nu? [Internet]. Vlaamse Overheid. 2023 [cited 2023 Apr 14]. Available from: https://www.vlaanderen.be/intern/ziekte/ziek-wat-nu
26. Vlaamse Overheid. Arbeidsongeschiktheid [Internet]. FOD Werkgelegenheid, Arbeid en Sociaal Overleg. 2023 [cited 2023 Apr 14]. Available from: https://www.belgium.be/nl/werk/gezondheid_en_welzijn/arbeidsongeschiktheid
27. Winde LD, Alexanderson K, Carlsen B, Kjeldgård L, Wilteus AL, Gjesdal S. General practitioners' experiences with sickness certification: a comparison of survey data from Sweden and Norway [Internet]. 2012. Available from: http://www.biomedcentral.com/1471-2296/13/10
28. Hemmings P, Prinz C. Sickness and disability systems: comparing outcomes and policies in Norway with those in Sweden, the Netherlands and Switzerland. OECD Economics Department Working Papers [Internet]. 2020 Feb 5; Available from: https://dx.doi.org/10.1787/c768699b-en
29. Verwer IJGM, Groothoff JW, Van Der Velden J, Van Der Gulden JWJ. Verschillen in arbeidsongeschiktheidscijfers en de benadering van arbeidsongeschiktheid in Nederland en Duitsland. Tijdschrift voor Gezondheidswetenschappen [Internet]. 2016;94(1):25–33. Available from: www.tsg.bsl.nl
30. AFP. Comment limiter le nombre d'arrêts maladie ? [Internet]. Radiofrance. 2018 [cited 2023 Apr 14]. Available from: https://www.radiofrance.fr/franceinter/comment-limiter-le-nombre-d-arrets-maladie-3232508
31. Le Parisien. Le gouvernement veut s'attaquer aux arrêts de travail délivrés en téléconsultation. [Internet]. Le Parisien. 2022 [cited 2023 Apr 14]. Available from: https://www.leparisien.fr/societe/sante/le-gouvernement-veut-sattaquer-aux-arrets-de-travail-delivres-en-teleconsultation-25-09-2022-YFFWKZD5WJAXLPUJCYXOUS3ZFY.php
32. TF1info. Trop de certificats médicaux inutiles ? Le gouvernement veut changer les règles. [Internet]. TF1info. 2023 [cited 2023 Apr 14]. Available from: https://www.tf1info.fr/sante/video-trop-de-certificats-medicaux-inutiles-le-gouvernement-veut-changer-les-regle-2247605.html
33. www.service-public.fr. Arrêt maladie : démarches à effectuer pour le salarié [Internet]. www.service-public.fr. 2022 [cited 2023 Apr 14]. Available from: https://www.service-public.fr/particuliers/vosdroits/F303
34. Alain Juilla. Le Scandale des Certificats Médicaux. [Internet]. Educnaute Info. 2014 [cited 2023 Apr 14]. Available from: http://www.educnaute-infos.com/article-le-scandale-des-certificats-medicaux-122116989.html
35. Chanu A, Caron A, Ficheur G, Berkhout C, Duhamel A, Rochoy M. Préférences des médecins généralistes libéraux en France métropolitaine quant à la délégation des tâches médico-administratives aux secrétaires assistant(e)s médico-social(e)s : étude en analyse conjointe.

Rev Epidemiol Sante Publique. 2018 May 1;66(3):171–80.
36. Mag Alexander Avian PD, med Andrea Siebenhofer-Kroitzsch UP, Dipl-Ing techn Andrea Berghold UP, med univ Klaus Jeitler SS. Erhebung der Berufsmotivation zur Allgemeinmedizin von Studierenden und jungen Ärzten in Österreich und Deutschland. Graz; 2017 Dec.
37. Döpfmer Barbara; Stumm Judith; Peter Lisa; Kuempel Lisa; Grittner Ulrike; Schnitzer Susanne; Rieckmann Nina; Dini Lorena; Heintze Christoph ST. Unterstützungsbedarf und -möglichkeiten für Hausärzte in der Versorgung von Patienten mit komplexem Bedarf: Eine Fragebogenerhebung Berliner Hausärzte. Das Gesundheitswesen [Internet]. 2020;83(10):844–53. Available from: http://www.thieme-connect.com/products/ejournals/abstract/10.1055/a-1173-9225
38. Arbeitsrechte.de. Krankmeldung: ab wann? Arbeitsrechte.de [Internet]. 2022 [cited 2023 Feb 7]; Available from: https://www.arbeitsrechte.de/krankmeldung-ab-wann/
39. Welsh VK, Mallen CD, Wynne-Jones G, Jinks C. Exploration of GPs' views and use of the fit note: A qualitative study in primary care. British Journal of General Practice. 2012 May;62(598).
40. Buelens J, Leuven KU, Huisartsgeneeskunde M. Het ziekteattest: attesteren wat niet meer kan of eerder wat wel nog kan? 2017.
41. Gov.Uk. Statutory Sick Pay (SSP): employer guide [Internet]. www.gov.uk. 2023 [cited 2023 Apr 23]. Available from: https://www.gov.uk/employers-sick-pay/entitlement
42. Thomson L, Hampton R. Debate & analysis fit for work? Changing fit note practice among GPs. Vol. 62, British Journal of General Practice. 2012.
43. Sawney P. Current issues in fitness for work certification Introduction The role of the certifying medical practitioner. British Journal of General Practice. 2002.
44. Winde LD, Alexanderson K, Carlsen B, Kjeldgård L, Wilteus AL, Gjesdal S. General practitioners' experiences with sickness certification: a comparison of survey data from Sweden and Norway [Internet]. 2012. Available from: http://www.biomedcentral.com/1471-2296/13/10
45. Krohne K, Brage S. New rules meet established sickness certification practice: A focus-group study on the introduction of functional assessments in Norwegian primary care. Scand J Prim Health Care. 2007;25(3):172–7.
46. Krohne K, Brage S. New rules meet established sickness certification practice: A focus-group study on the introduction of functional assessments in Norwegian primary care. Scand J Prim Health Care. 2007;25(3):172–7.
47. Engblom M, Nilsson G, Arrelöv B, Löfgren A, Skånér Y, Lindholm C, et al. Frequency and severity of problems that general practitioners experience regarding sickness certification. Scand J Prim Health Care. 2011 Dec;29(4):227–33.
48. Norrmén G, Svärdsudd K, Andersson D. Impact of physician-related factors on sickness certification in primary health care. Scand J Prim Health Care. 2006 Jun;24(2):104–9.
49. Arrelöv B, Alexanderson K, Hagberg J, Löfgren A, Nilsson G, Ponzer S. Dealing with sickness certification - A survey of problems and strategies among general practitioners and orthopaedic surgeons. BMC Public Health. 2007;7.
50. socialsecurity.gov.mt. Sickness Benefit Malta [Internet]. https://socialsecurity.gov.mt/en/information-and-applications-for-benefits-and-services/medical-assistance/sickness-benefit/. 2023 [cited 2023 Feb 21]. Available from: https://socialsecurity.gov.mt/en/information-and-applications-for-benefits-and-services/medical-assistance/sickness-benefit/
51. Soler JK. Sick leave certification: a unique perspective on frequency and duration of episodes-a complete record of sickness

certification in a defined population of employees in Malta [Internet]. 2003. Available from: http://www.biomedcentral.com/1471-2296/4/2
52. Soler JK, Okkes IM. Sick leave certification: An unwelcome administrative burden for the family doctor? - The role of sickness certification in Maltese family practice. European Journal of General Practice. 2004;10(2):50–5.
53. De Paola M, Scoppa V, Pupo V. Absenteeism in the Italian Public Sector: The Effects of Changes in Sick Leave Policy. 2014.
54. Amuri FD'. Monitoring, monetary incentives and workers' rents in determining absenteeism [Internet]. 2011. Available from: http://sites.google.com/site/fradamuri/;
55. Relationship Between Clerical Burden and Characteristics of the Electronic Environment With Physician Burnout and Professional Satisfaction.