Summary

Gehrig and Graf (2009): «The costs and benefits of the use of community interpreters by the healthcare system. Part I (main report): Description of the medical impact chain that underlies the costs and benefits of community interpreting in the healthcare system», Bern: Büro BASS [Report only available in German language].

Recent estimates put the number of allophones in Switzerland – foreign-born residents who neither understand nor speak one of the national languages (French, German and Italian) – at around 200,000. This lack of foreign language skills, which is also frequently associated with little knowledge of Swiss institutions, makes many areas of day-to-day life difficult for the allophone population. One such area is dealing with the healthcare system. Here allophones find themselves in a setting where they are unable to communicate either in their mother tongue or in another language in which they are conversant. The use of trained community interpreters can help remove all or at least some of the language and cultural barriers which allophone patients come up against.

Advocates of the use of community interpreters by healthcare providers, particularly by hospitals and clinics, tend to put forward one of two arguments:

■ **Ethical argument:** The gist of the ethical argument is that universal access to healthcare and «to the healthcare that they require» (Art. 41 para. 1b of the Swiss Federal Constitution) is a right which is politically non-negotiable and ought not be conditioned by the competing interests of different social groups. Furthermore, according to this argument the use of community interpreters thus ensures that the allophone population enjoys non-discriminatory access to the healthcare system and, in turn, benefits from the same qualitative level of service as that enjoyed by the indigenous population.

■ **Legal argument:** Proponents of this position argue that universal entitlement to medical care is a constitutional right in Switzerland and is also enshrined in international law. They also cite the legal provisions in the «Patientendekret» (patient's charter) obliging the state to ensure that in public hospitals language barriers do not hinder patient information provision or the patient consent procedure.

There is also a third argument which is based on **economic** principles. It claims that the use of community interpreters by the healthcare system makes sound economic sense. The logic underpinning this argument is that on the one hand comprehension problems between health professionals and allophone patients can lead to an *underprovision of medical services,* which in turn generates disproportionately high costs in the longer term due to the adverse effect on patient health. On the other hand, the language barrier between these two groups leads in the short term to an inefficient *over-provision of medical services,* which automatically places a heavier cost burden on the healthcare system.

All three arguments presuppose the validity of the **medical argument** which views the use of specially trained interpreters as a medical necessity. According to this argument, health professionals cannot rely solely on objective data when establishing the patient's case history, making their diagnosis, assessing the course that the illness is likely to take and deciding on the appropriate treatment. An effective and well-founded decision also requires input from the patients themselves. This necessity is a consequence of the increasing focus of modern medicine on prevention, i.e. helping patients change their health behaviour. Nowadays, patients undergo preventive check-ups on a regular basis, take active steps to prevent illness (sun protection, tooth decay protection, healthy eating plans etc.) and adapt their behaviour either in the short term as a result of the illness (regular medication intake, therapy sessions) or in the long-term (dietary changes etc.). Clearly, any language barrier between the patient and the healthcare professional would restrict access to the resources available to the patients and thus negatively affect their convalescence and recovery.

Given that the impact of the use of community interpreters by the healthcare system has not previously been subjected to a comprehensive economic cost-benefit analysis, the economic argument set out above hitherto had to be considered a mere hypothesis.

In light of this, the Federal Office of Public Health (FOPH) commissioned the Büro für arbeits- und sozialpolitische Studien (BASS) to carry out a preliminary study on «the costs and benefits of the use of community interpreters by the healthcare system». The aims of this preliminary study are:

■ Qualitative description of the medical impact chain that underlies the costs and benefits of community interpreting (**Report, Part I**).

■ Presentation of the benefits of the use of community interpreting services by the healthcare system based on three examples (**Report, Part II**).

■ Feasibility study and evaluation of conceptual tool for a full-scale study, i.e. a quantitative cost-benefit analysis (**Report, Part III**).

The following **methods** were used in the present preliminary study:

- *Literature research*: Analysis of five meta-studies on the impact of language barriers and the use of interpreters in the healthcare system
- *Expert interviews*: Interviews with 15 experts who are administrators, nurses or physicians in the Inselspital in Berne, in the Olten cantonal hospital and in the Psychiatric University Clinic Zurich.

Defining the costs and benefits of community interpreting

In 2008, some 120,000 hours of community interpreting were performed across the Swiss healthcare system. To determine the costs and benefits of such a service, we need to identify what the outcome would have been in the absence of community interpreting services, i.e. if either no trained community interpreters were used or «ad-hoc» interpreting services were provided by relatives of the allophone patients or by members of the hospital staff who had sufficient knowledge of the patients mother tongue, but the availability and quality of which would have differed from that of professional community interpreting services. These considerations lead us to conclude that the use of community interpreters affected the utilisation of the healthcare system by allophone patients as well as their health, which in turn affected economic outcomes. This inferred difference in outcomes with respect to a (hypothetical) Swiss healthcare system which does not use community interpreting services (reference scenario) are in fact the costs and benefits. These measure the difference between the observed outcomes and a comparable hypothetical reference scenario.

Costs of community interpreting

It is relatively easy to calculate the **direct costs** of community interpreting services for the healthcare system:

- *Labour costs of community interpreters (incl. costs of travel time and travelling expenses)* generated by their deployment in the given healthcare facility.
- *Costs of agencies* that supply the interpreters.
- *Administration costs* incurred by the healthcare facility when community interpreters are needed and used.

These direct costs are then compared to the direct costs that would arise in the reference scenario, i.e. where no interpreters or only ad-hoc interpreters (members of hospital staff with the necessary language skills or a relative of the patient) were used.

The use of community interpreters can likewise generate **indirect costs**. In instances of medical *underprovision*, the use of trained interpreters can (and should in many instances) lead to a *higher utilisation of medical services* by the allophone patient. The indirect costs, therefore, can be considered as the costs resulting from **«quantity expansion»**. This type of expansion, for example, arises, when improved understanding between patient and healthcare professional widens the spectrum of treatments available to the patients, leads to a quantitative increase in preventive health check-ups which they undergo, as well as to better and more accurate diagnoses. A priori, the cost-benefit ratio need not always be positive for such additional medical services which have a causal link with the use of community interpreters:

- *«Unnecessary» medical services:* First, a quantity expansion generates a negative net benefit if additional «unnecessary» treatments are dispensed as the result of successful interlingual communication, because non-treatment (e.g. due to difficulty reaching a diagnosis because of comprehension problems) would have produced the same health outcome. This could apply when the patient suffers from the type of health complaint that resolves of its own accord or when it is a simple case of «positive thinking proving to be the best medicine».
- *«Ineffective» medical services:* Second, a quantity expansion generates a negative net benefit when the additional medical services have no effect.
- *«Economically inefficient» services:* Third and finally, a quantity expansion always generates a negative net benefit if the cost-benefit ratio of additional medical services is negative regardless of whether the patient is allophone or not.

Since it is very often impossible to know ex ante (or even ex post) whether a treatment is «unnecessary», «ineffective» or «economically inefficient», can the additional costs of a quantity expansion actually be considered as «community interpreting costs»? An alternative interpretation is that these indirect costs are in fact «the costs of insufficient medical knowledge». However, there is a suspicion that this view merely «defines away» the underlying economic problem. Serious moral issues also arise from the costs generated when the health behaviour of the allophone population becomes similar to that of the indigenous population being described as «costs of community interpreting», because this interpretation ultimately implies the existence a two-tier medical system. To put it simply, unlike the indigenous population, allophone patients would not be entitled to «unnecessary», «ineffective» and «economically inefficient» medical

services. This is not only unethical but also flouts the principles of a political democracy because such a system has no constitutional or legal basis and thus lacks legitimacy.

Benefits of community interpreting

In the same way as costs, the use of community interpreters in the healthcare system generates both indirect and direct benefits.

Direct benefits can take the form of costs saved by the healthcare system when the use of community interpreters leads to the reduced utilisation of medical services by allophone patients without any detrimental effect on their health. Direct benefits, therefore, can be considered as **«efficiency gains»**. In other words, the use of community interpreters leads to a situation whereby it takes fewer resources to achieve the original aim of the medical service. Such gains are expected in cases where an *overprovision* of medical services would arise due to comprehension problems between the allophone patient and the health professional(s). This overprovision, i.e. increased and cost sub-optimal utilisation of the healthcare system, can have various causes:

- Language barriers can create a situation whereby the allophone patient has *greater recourse to hospital services than to services provided by medical practices*. This utilisation of the healthcare system is suboptimal, because the complex structure of hospitals tends to be linked to less favourable cost structures than those of small and transparently organised medical practices.
- Language barriers reduce the *speed of medical service delivery*. This slowdown can lengthen the *duration of consultations* and increase their *frequency*.
- Being unable to understand the allophone patient can undermine the confidence of the healthcare professional. This *unsureness* can lead to an increase in the *frequency* and/or the *duration of hospital stays*, a quantitative increase in *objective medical tests* as well as unnecessary *hospitalisations*.
- Language barriers can hinder the health professional from clearly establishing the case history of the patient, which means that satisfactory limits cannot be set on the range of possible diagnoses. Consequently, the healthcare professional resorts to *additional objective tests* (radiology etc.), which then has a direct impact on costs.
- When allophone patients are unable to explain their *medical treatment history* to the healthcare professional because of their poor knowledge of the working language, it can lead to the same medical examinations and interventions carried out *more than once*.
- When allophone patients are unable to describe and communicate their symptoms sufficiently well, this increases the *probability of a wrong diagnosis* and the *delivery of unnecessary treatment*.
- Language barriers can have a long-lasting negative impact on the *doctor-patient relationship*, on the trust that the allophone patient places in the doctors and on the *satisfaction of allophone patients* with the medical consultation. This can lead to *doctor-hopping* by the allophone population, which also drives up costs.

The **indirect benefits** of community interpreting can likewise come in the form of saved or prevented costs. This is the case, for example, when the use of community interpreters can prevent the *negative progress of the illness*, which would have otherwise generated costs not only for the health service but also for the economy and society as a whole. There are different types of **indirect benefits**:

- Benefits in the shape of saved additional *healthcare costs* generated when comprehension problems negatively influence the health of allophone patients.
- Benefits in the shape of prevented *lost output* for the economy (paid work) and for society (unpaid work) as the result of health-related *absences, incapacity to work/invalidity* or *death*, including health-related *loss of productivity*.
- Benefits in the shape of saved or prevented additional *costs outside of the healthcare system and the economy* (education, penal system etc.).

The use of trained community interpreters therefore can generate indirect benefits when their services remove language barriers that would have otherwise led to a deterioration in the health of the allophone patient. Language barriers can have a negative impact on the progression of illnesses among allophone patients particularly through the following two causes:

- **Delayed delivery of treatment**: There are a number of reasons – in particular underprovision during the initial utilisation of medical services – why language barriers can delay the delivery of the appropriate medical treatment. A time lag between the onset of the illness and receipt of appropriate treatment lowers the *probability of recovery* and increases *recovery time*. Moreover, the patient may develop *additional symptoms and comorbid complications* in the intervening period, a situation which entails a risk of the illness becoming chronic. Consequently, treatment costs rise disproportionately with the length of time it takes from the onset of the illness to diagnosis.

■ **Non-compliance (non-adherence):** Language barriers can lead to a situation where allophone patients do not strictly adhere to the treatment protocol. This is particularly true when allophone patients do not fully grasp the instructions they have received as regards their treatment. Language barriers can also damage the trust of allophone patients in their health professional, which in turn diminishes their motivation to cooperate. Non-compliance ultimately leads to a negative progression of the illnesses, which could have been avoidable had a community interpreter been used.

State of the empirical research

Some of the effects stated above are empirically disputed. Others were, until now, never subject to empirical investigation. Based on the literature search, the following effects appear to be **empirically validated**:

■ The use of community interpreters improves the relevant *medical knowledge* of allophone patients.
■ The use of community interpreters raises the *satisfaction* of allophone patients with the medical services they utilise and increases their *trust* in the health professionals treating them.
■ The use of community interpreters improves treatment *compliance* among allophone patients.
■ The use of community interpreters has a positive effect on the *progression of the illness* and the health of allophone patients.
■ The use of community interpreters leads in the short term to a *quantitative rise* in the *healthcare utilisation* of the allophone patients.
■ The use of community interpreters raises the number of *preventive health check-ups* that the allophone population undergoes.

There is no consensus in the scientific literature on the following effects of the use of community interpreters:

■ Impact of the use of community interpreters on the *probability and duration of in-patient hospital and clinic stays* by allophone patients.
■ Impact of the use of community interpreters on the *number of medical tests* which allophone patients undergo as part of the procedure to establish their medical history.
■ Impact of the use of community interpreters on the *probability of inappropriate and/or suboptimal treatments*.

Very limited findings exist in the scientific literature in relation to the following effects of the use of community interpreters:

■ Impact of the use of community interpreters on «*doctor-hopping*» among allophone patients.
■ Impact of the use of community interpreters on the *probability of wrong diagnoses* (the few studies that exist conclude that language problems increase the probability of wrong diagnoses).

Conclusion

Overall we can conclude that the use of community interpreters generates additional costs for the healthcare system in the short term. However, these are offset in the long term by savings for the health system, the economy and society as a whole. This *trade-off* over time means that the use of community interpreters should be considered as an *investment*:

■ In the **short term** the cost-benefit ratio of community interpreting is determined by the direct and indirect costs as well as the direct benefits. The central question is whether the direct benefits (*efficiency gains*) must outweigh the indirect costs (*quantity expansion*). Since the health monitoring of the Swiss migrant population study points to the fact that the resident foreign population suffers from a disadvantage in terms of first-time access to healthcare, such indirect costs are likely to exist. Whether these can be offset by the direct benefits is unclear. As a consequence, it is difficult to quantify the short-term cost-benefit ratio (net benefits).
■ The **long-term** effects of community interpreting depend on the progression of allophone patients' health. The impact is undoubtedly positive, in other words the indirect benefits are positive. If the short-term net benefits turned out to be negative, the cost-effectiveness of the use of community interpreting services by the healthcare system would depend on how high or low these indirect benefits are.