WHAT IS THE MOST EFFICIENT reimbursement scheme in Europe?

© Christophe Lebedinsky

Among the various reimbursement schemes for hearing aids in Europe, is one system more efficient than the others? Today, we have new sources of information that may help to answer this question. This study of seven European countries based on data from EuroTrak 2012 and the Market Study of Western Europe 2011 was written at the beginning of 2015.

(Translated from French by *Audio infos*)

Luis Godinho,
Hearing aid specialist in Paris, President of the French National Union of Hearing Aid Professionals (UNSAF) and member of the Haut Conseil pour l'avenir de l'Assurance maladie (HCAAM).
l.godinho@unsaf.org *@Luis_ _Godinho*

Using the US MarkeTrak studies as a model, the European Hearing Instrument Manufacturers Association (EHIMA)[1] has undertaken surveys of the hearing aids market in Europe.

After an initial program in 2009 covering the three largest markets in Europe, Germany, the United Kingdom, and France, the surveys were renewed in 2012 and extended to Japan as well as four additional European countries, Norway, Switzerland, Italy, and Denmark[2]. The strict methodology used for these studies, carried out by the Swiss market research firm Anovum[3], has made this information source a reference in the field, with results used by the public authorities, for example in France by the Ministry of Health in August 2014[4] or in Belgium by the Ministry of the Economy in December 2014[5].

In addition, M. Tony Grant-Salmon, former Chairman of the British Hearing Aid Manufacturers Association and former President of Knowles Europe, regularly publishes the Market Study of Western Europe. This study lists the different types of hearing aids and annual sales volumes in the large countries of Western Europe[6].

1- www.ehima.com
2- www.ehima.com/documents
3- www.anovum.com/en
4- Direction de la recherche, des études, de l'évaluation et des statistiques (Drees), Étude quantitative sur le handicap auditif à partir de l'enquête « Handicap-Santé », p. 59
5- Belgian National Accounts Institute, "Étude sur les prix, les marges et le fonctionnement du marché des appareils auditifs en Belgique", December 2014
6- *Audio infos* France No 173, The market in Western Europe 2011 vs 2010, July - August 2012

Sales and reimbursements of hearing aids for a number of European countries in 2011

Calculating the number of devices sold per 1,000 inhabitants provides easy comparison.

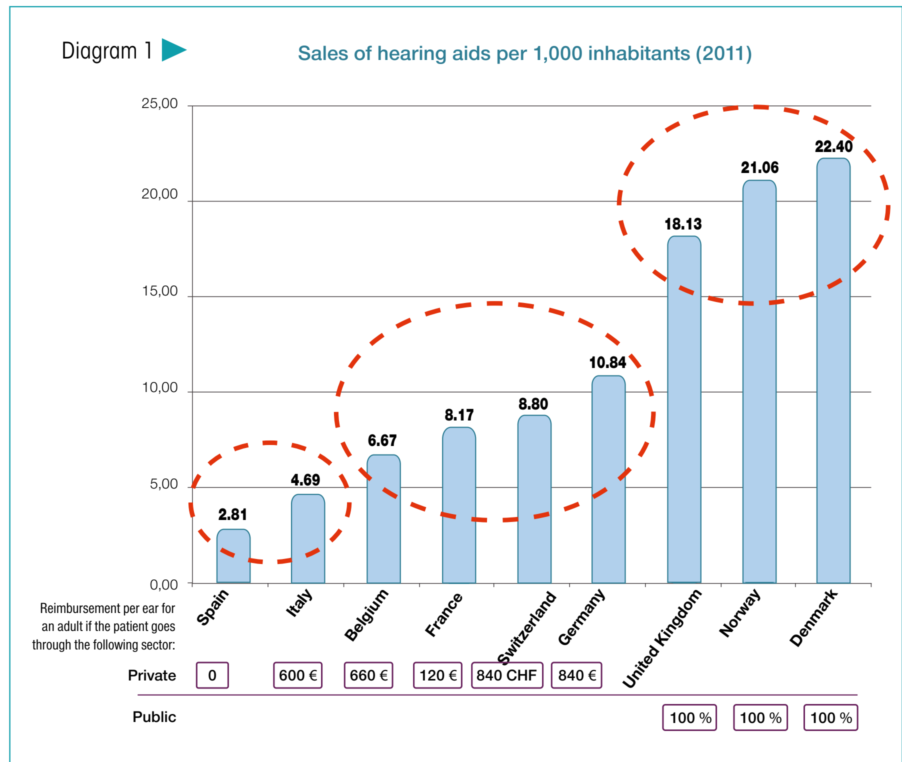
and the mid-range level in the UK, 64%. All the other countries have a rate between 74% and 84%.

Since the prevalence of hearing impairment increases with age, the two countries with the oldest populations,

Table 1

	Population (2012)*	Devices sold (2011)**	Devices sold/ 1,000 inhabitants (2011)
Spain	46 196 276	130 000	2.81
Italy	60 820 696	285 000	4.69
Belgium	11 094 850	74 000	6,67
France	63 409 191	518 000	8.17
Switzerland	7 954 662	70 000	8.80
German	81 843 743	887 000	10.84
United Kingdom	62 989 551	1 142 000	18.13
Norway	4 985 870	105 000	21.06
Denmark	5 580 516	125 000	22.40

*Eurostat Population 2012. Data extracted by Richard Darbéra, Patient contributions for hearing aids, 20/11/2014
***Audio infos* No 173: The market in Western Europe: 2011 vs 2010, July - August 2012, p. 22
***Audio infos*: 1,221,602 hearing aids sold in 2012 in the United Kingdom, up 7% from 1,142,000 in 2011, 08/03/2013
**In Switzerland, change in reimbursement mid-2011: 70,000 in 2010, 90,000 in 2011, 50,000 in 2012. Choice of mean volume 2011-2012, equal to that of 2010.
** Belgian National Accounts Institute, "Étude sur les prix, les marges et le fonctionnement du marché des appareils auditifs en Belgique", décembre 2014, p.59
** In the UK, as the detail of the number of new devices actually delivered by the NHS and those for repairs is not specified in the studies mentioned above, we will base our calculations on the overall quantity.



This diagram shows three groups of countries:

- countries of Southern Europe, with Spain and Italy, which show the lowest levels of sales, despite much higher reimbursement in Italy for certain patients,
- continental Europe, with Belgium, France, Germany, and Switzerland, which show medium-range sales levels,
- and Northern Europe, with the UK, Norway, and Denmark, where the highest levels are recorded.

It is clear that sales are not proportional to reimbursements since Belgium has an amount similar to that for Switzerland but sales are significantly lower, and France is relatively well placed in sales despite very low healthcare system reimbursements for adults.

Number and rate of persons fitted in 2011 for a range of European countries

On the basis of rates for bilateral fitting and data on the prevalence of hearing loss collected by EuroTrak, we can calculate the percentage of people with hearing loss fitted in 2011 for the seven countries under study (Table and Diagram 2).

Of note, the low level of bilateral fitting in Italy, 44%,

Germany and Italy, logically have the highest rates of hearing impaired people.

Percentage of users versus the total number of hearing impaired measured by EuroTrak in 2012 (Table and Diagram 3)

Denmark has an exceptional rate of fitting at 47.8%. This country of 5.6 million inhabitants is unique in that it is home to three of the six multinationals that manufacture hearing aids worldwide, a factor that can only promote acceptance and maximum penetration of hearing devices.

The level of fitting in Denmark is therefore the world reference and is close to the maximum level of "fittable" persons: 50% to 60% of persons who report hearing impairment.

This is because not all people with hearing impairment benefit from hearing aids, for various reasons including hyperacusis, very minor deficits, certain types of tinnitus, etc.

In 2009, a European study commissioned by the public authorities in France found "a rate of fittable persons of 50% of the total hearing impaired population" in the five countries studied[7].

Table 2

	Population (2012)	Devices sold (2011)**	Rate of bilateral fitting (2011-2012)*	Persons fitted (2011)	Persons fitted /1,000 inhabitants (2011)	Prevalence of hearing loss(2012)*	Persons fitted/100 hearing impaired
Italy	60 820 696	285 000	44%	197 917	3.25	11,6%	2.81
France	63 409 191	518 000	74%	297 701	4.69	9,4%	4.99
Germany	81 843 743	887 000	76%	503 977	6.16	12,5%	4.93
Switzerland	7 954 662	70 000	74%	40 230	5.06	8,8%	5.75
United Kingdom	62 989 551	1 142 000	64%	696 341	11.05	9,1%	12.15
Norway	4 985 870	105 000	76%	59 659	11.97	8,8%	13.60
Denmark	5 580 516	125 000	84%	67 935	12.17	10,0%	12.17

** In the Uk, overall quantity for sold and repaired devices.

*EuroTrack 2012

The Swedish association for the hearing impaired *Hörselskadades Riksförbund* (HRF) found that 56% of people with hearing loss could benefit from hearing aids[8].

In 2013, the French Inspectorate General of Social Affairs (IGAS) worked with a similar ratio: “2.5 to 3 million fittable persons”[9] in France, of a total of about 6 million people with hearing loss.

The level of fitting in the United States remains moderate, on a par with rates in Italy, the lowest among the studied European countries.
Concerning satisfaction of the hearing impaired in Japan, the rate is particularly low at only 36%, while the seven European countries studied by EuroTrak show an overall satisfaction rate of between 70% and 84%[10]. The level of fitting is also the lowest in this country: 14.1%.

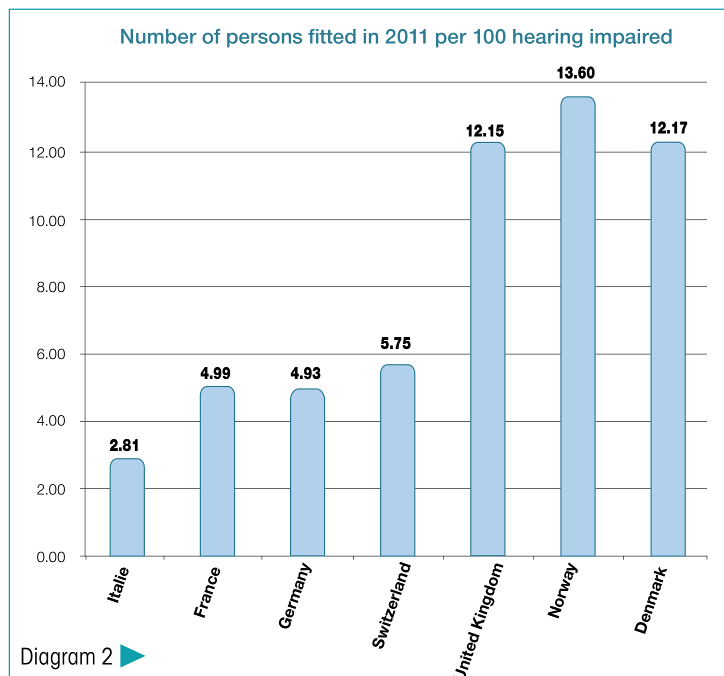


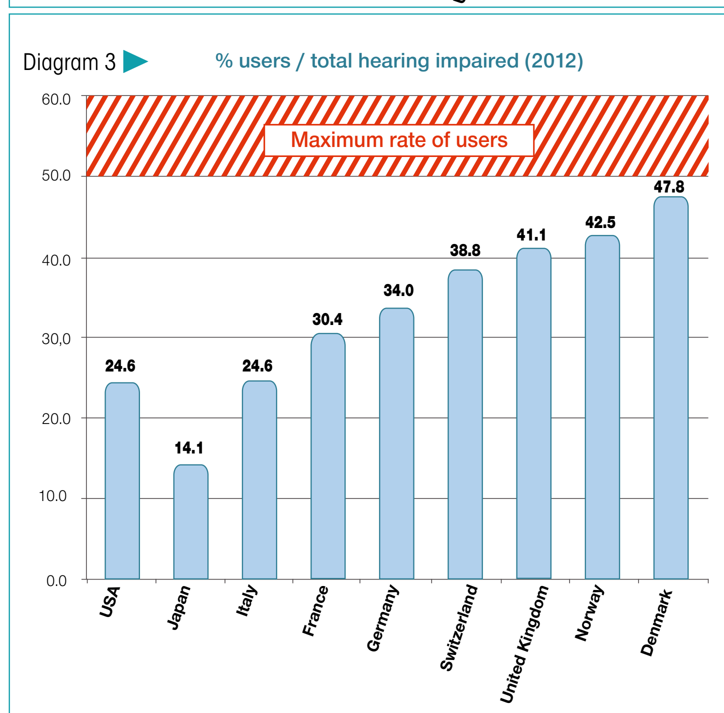
Diagram 2

Table 3

	Percentage of users versus the total number of hearing impaired measured by EuroTrak in 2012)*
USA	24.6
Japan	14.1
Italy	24.6
France	30.4
Germany	34.0
Switzerland	38.8
United Kingdom	41.1
Norway	42.5
Denmark	47.8

**Hearing Review*, EuroTrak + JapanTrak 2012 - World’s largest mutli-country consumer survey about hearing, hearing loss and hearing aids, March 2013.

Diagram 3



These figures should be put into perspective given the lack of public regulation in Japan concerning supply of hearing aids, which results in high numbers of low-

7- CNSA, Étude européenne sur le marché et les prix des aides techniques. Synthèse Aides Auditives, décembre 2009, p. 4.
8- http://www.csc.kth.se/utbildning/kth/kurser/DH2625/itfunk-h07/schema/hrf.pdf
9- Blanchard P., Strohl-Maffesoli H., Vincent B., Évaluation de la prise en charge des aides techniques pour les personnes âgées dépendantes et les personnes handicapées, rapport de l’IGAS, avril 2013.
10- *The Hearing Review,* EuroTrak + JapanTrak 2012 - World’s largest multi-country consumer survey about hearing, hearing loss and hearing aids, March 2013.
11- JapanTrak 2012. http://ivo.ehima.dev02.accedo.dk/wp-content/uploads/2014/03/JapanTrak_2012.pdf

range products supplied without the choice, fitting, and follow-up provided by professionals: “18% of users acquired their hearing aids at an optician, and 14% through mail order or on the internet”[11]. *“This shows that «non-professional» hearing health services lead to a lower customer satisfaction rate”,* says Søren Hougaard, Secretary General of EHIMA[12].

In the area of hearing impairment, it is clear that without initial medical diagnosis and personalized care by a professional, there is no efficiency, nor patient satisfaction. This was the conclusion that the US Food and Drug Administration (FDA) came to back in 2009 : *«While these personal sound amplifiers may help people hear things that are at low volume or at a distance, the Food and Drug Administration (FDA) wants to ensure that consumers don’t mistake them—or use them as substitutes—for approved hearing aids.»* [13] And to the concern *«Where should I go to get hearing aids?»,* FDA’s advice is clear: *«We recommend that patients with hearing loss go to a hearing healthcare professional (for example, an audiologist or a hearing aid dispenser), as appropriate, for a hearing assessment and hearing aid evaluation. We also recommend that a person with hearing loss have a medical evaluation by a licensed physician (preferably one who specializes in diseases of the ear, such as an otolaryngologist) when purchasing a hearing aid. The hearing healthcare professional will assess the person’s ability to hear sounds and understand others with and without a hearing aid(s) and select and fit a hearing aid(s) to the person’s individual communication needs.»* [14]

By comparing diagrams 2 and 3, the difference in the number of fitted persons in 2011 between continental Europe and the countries of Northern Europe appears to a far lesser extent in the results of the fitting levels measured by EuroTrak...

This rate is for all users, regardless of the year when they were fitted. As a result, if the change in rate of fitting, an increase throughout the sample, differs from one country to the next, this could lead to variations that we will not take into account in this analysis.

Nonetheless, the group Italy-France-Germany-Switzerland on the one hand, and the UK-Norway-Denmark group on the other, show consistent results.

We can therefore ask why the major difference in devices supplied each year in Northern Europe versus the other countries does not show up in their levels of fitted population.

“Compliance index” and rate of overall satisfaction

Therapeutic compliance is “the way in which a person complies with medical prescriptions or rules in a treatment program”[15].

In the area of hearing devices, this could be defined as actual use of the hearing device effectively supplied.

By dividing the rate of users measured by EuroTrak by the percentage of devices supplied, on the basis of data in the Market Study of Western Europe and Eurostat demographic data, it is possible to determine a “compliance index” concerning hearing aids.

The higher the compliance index, the more the devices supplied will promote effective use of hearing aids in a higher number of people (Table 4).

Table 4

	% users / total hearing impaired(2012)*	Persons fitted / 100 hearing impaired	Compliance index
Italy	24.6	2.81	8.77
France	30.4	4.99	6.09
Germany	34.0	4.93	6.90
Switzerland	38.8	5.75	6.75
United Kingdom	41.1	12.15	3.38
Norway	42.5	13.60	3.13
Denmark	47.8	12.17	3.93

*EuroTrack 2012

The highest compliance index is found in Italy, but in a context of fitting primarily for a single ear: the rate of bilateral fitting is only 44% in this country, while it averages 75% in the six other countries studied. Importantly, the other countries are close to the maximum bilateral fitting level, which appears to be about 80%.

Aside from the specific case of Italy, we find two groups of countries with converging compliance indices: France, Germany, and Switzerland on the one hand, with indices ranging from 6.09 to 6.90 (mean 6.58), and the UK, Norway, and Denmark on the other, with indices ranging from 3.13 to 3.93 (mean 3.48).

The difference between the two groups is significant: the mean of the first is almost double that of the second. Considering the data in Table 1 and the differences between the UK and France, in prevalence, bilateral fitting levels, and population, if the UK had a compliance index like that of France, 6.09, it would have been enough to supply 634,422 devices[16] in 2011 to reach its rate of users of 41.1%. However, we can see that 1,142,000 devices were marketed in 2011 in the UK.

12- *Audio infos France,* EuroTrak 2012 Japan: a very mixed picture, No 181, March 2013.
13 - FDA, Hearing Aids and Personal Sound Amplifiers: Know the Difference, October 2009. http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm185459.htm
14 - FDA, How to get Hearing Aids. http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/HomeHealthandConsumer/ConsumerProducts/HearingAids/ucm181479.htm
15- Académie de Médecine Medical dictionary – version 2015. http://dictionnaire.academie-medecine.fr/?q=Observance
16- 41.1 ÷ 6.09 = 6.75% of fitted hearing impaired, i.e. 6.75 × 62,989,551 × 0.091 ÷ 100 = 386,843 fitted persons.
Bilateral fitting rate: 64%, therefore 386,843 × 1.64 = 634,422 devices.

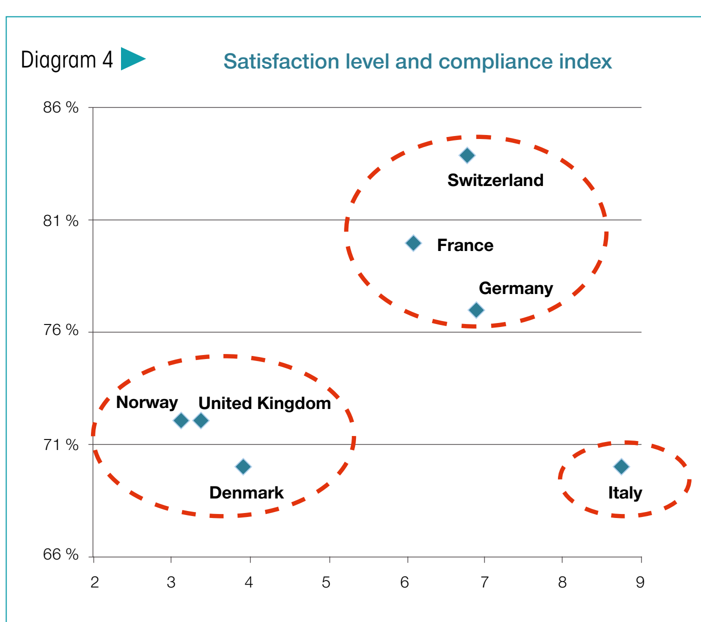
Is the compliance index proportional to user satisfaction?

We have overall satisfaction rates for the seven countries through EuroTrak 2012 data.

Table 5

	Compliance index	% overall satisfaction*
Italy	8.77	70%
France	6.09	80%
Germany	6.90	77%
Switzerland	6.75	84%
United Kingdom	3.38	72%
Norway	3.13	72%
Denmark	3.93	70%

*EuroTrack 2012



With the exception of Italy, Diagram 4 shows the considerable correlation between the compliance index and overall satisfaction.

Like for the level of fitting, the rate of overall satisfaction measured by EuroTrak is that of all the users, regardless of the year of fitting, with a level of satisfaction that increases for more recent devices.

The increase in the satisfaction rate found in all countries indicates that the margin of error is low, with the consistency of results for the studied countries supporting this conclusion[17].

Italy:

The high compliance index goes hand-in-hand with a low level of bilateral fitting, 44% versus 75% as a mean for the six other countries studied, as mentioned above. The result is the lower rate of satisfaction for the seven countries, 70%, on a par with Denmark, confirming the need for bilateral fitting when necessary, as already demonstrated in many studies.

Denmark – Norway – United Kingdom:

These three countries have very similar results: the low compliance index may indicate that a large number of devices supplied with no patient contribution are not actually used by the patients. They also logically have a relatively low satisfaction level, between 70% and 72%.

Germany-France-Switzerland:

For this group, the results are also consistent: the compliance index is high in view of the satisfaction rate, between 77% and 84%.

Logically, when most patients use their devices, satisfaction is high. This results in a virtuous circle enabling fitting of a larger proportion of the population with a lower number of hearing aids. These countries appear to have a system that is more efficient.

Inelastic demand to price, and a satisfaction which is operator dependent

It may appear surprising that the best results are obtained in the countries where the cost is only partially covered by the system, leaving some patient contribution (very high in France: almost 1,000 Euros per ear for an adult)[18].

In short, demand for hearing aids is relatively inelastic to price[19].

The General Inspectorate for Social Affairs in France (IGAS), responsible for evaluating public policies for the Ministry of Health, indicates that hearing aids are not “a consumer item (...),but a device aimed at compensating and also preventing loss of autonomy”[20].

The report «Hearing aids in Belgium”, points out that “it is important to understand that demand is relatively inelastic to price, since hearing aids are seen as a basic necessity”[21].

Also in the United States, it has been found that “simply lowering the cost of hearing aids - even by as much as 40% - does not improve hearing aid purchase”. “Even the best hearing aid on the market won’t help if it is not fit properly by an expert.”[22].

Hearing care professionals must indeed adapt to “com-

17 - Median renewal times, concentrated around 5 years (Switzerland, France and UK: 5 years; Italy and Denmark: 4 years; Germany and Norway: 6 years), concern less than half the users for all countries. The effect on the results is therefore very limited.
18- www.unsaf.org/site/l-unsaf/les-syntheses-de-l-unsaf.html
19- Inelasticity characterizes the absence of link or the independence of variations of the two variables.
20- Blanchard P., Strohl-Maffesoli H., Vincent B., *op. cit.*
21- KCE reports 91B, Hearing aids in Belgium, 2008, p. iv
22- *The Hearing Journal,* Reducing hearing aid cost does not influence device acquisition for milder hearing loss, but eliminating it does, May 2011. (www.henryford.com/body.cfm?id=46335&action=detail&ref=1351)

plex" patients and Ihave to be able to provide devices that the patients do not really want as a result of psychological obstacles, fear of stigma, and so on, and for which the benefits are only felt several days or even weeks after the start of use. The distribution phase cannot only be considered as a simple distribution process. It is more a question of adapted and personalized service. Fitting hearing aids involves a number of appointments with the patient (hearing tests, manufacture of the end piece or shell, adjustments) then, after supplying the device, follow-up over several years to check fitting and to perform regular personalized adjustment throughout the lifetime of the device.
The IGAS states that "no professionals other than hearing aid specialists are competent to carry out these recommendation, testing, and support steps. The choice of the device is therefore left in the hands of the hearing aid specialist and can only be checked by a professional with the same skills."[23]

A highly «operator-dependent" profession

Fitting hearing aids is a highly "operator-dependent" profession in which hearing aid specialists "do not sell the devices" but charge for their expertise for selection and fitting and for their time to train the patient on use of the device and regular personalized follow-up, as often as the user deems it necessary. This leads to better functioning in countries where patients can freely choose a professional who will select and adjust the device, and ensure all necessary follow-up.
This is the case in Germany, Switzerland, and France. Professionals are in competition with one another and users more often turn to those who have the best reputation, based on advice from medical practitioners, or other patients, for instance. These specialists will thus follow up a larger number of people, helping to improve overall satisfaction thanks to "competition through quality".

In the United Kingdom, there also appears to be a willingness to increase patient freedom. This policy is known as Any Qualified Provider (AQP) and broadens the choice for patients. It will be interesting to monitor changes in the compliance index and overall satisfaction over time in view of this new possibility offered to patients.

Links between hearing impairment and loss of autonomy

Hearing loss is strongly associated with cognitive decline[24]. For mild hearing loss (25 dB), the decrease in cognitive performance is equivalent to that of a person 6.8 years older[25].

The risk of dementia is multiplied by 1.89 for moderate hearing loss, by 3.00 for mild loss, and by 4.94 for severe loss[26].
Elderly people with hearing loss have an acceleration of cognitive decline greater than 30% to 40%[27]. Non-compensated hearing loss causes a decrease in quality of life related to isolation, a reduced social life, and a feeling of exclusion, leading to increased prevalence of depression[28].

Even a moderate degree of hearing loss almost triples the risk of falls in elderly patients[29]. At the 37th Congress of French hearing care professionals which took place in Paris on April 10, 11 and 12, 2015, Prof. Hélène Amieva, from INSERM[30] Unit 897 Epidemiology and Biostatistics in Bordeaux, made an exclusive presentation of her ongoing study. Her findings show that cognitive decline is clearly accelerated in people with hearing impairment versus a control group, while cognitive decline in people with hearing aids is slowed and is similar to that of people with normal hearing. "These results support diagnosis and rehabilitation of hearing deficits", according to Prof. Amieva[31]

A moderate hearing loss (25 dB) is therefore sufficient to double the risk of cognitive decline and to triple the risk of falls in elderly subjects.

These results speak in favor of rehabilitation starting from a moderate hearing loss of 25 dB.
Health economics studies show that the cost of non-treated hearing loss is much higher than the cost of hearing aids[32/33] .

With an aging population in Europe, good quality management of hearing loss is a public health priority in order to limit the increasing number of dependent individuals.

23- Blanchard P., Strohl-Maffesoli H., Vincent B., *op. cit.*
24- Uhlman RF *et al.* Jama. 1989 Apr 7 ; 261(13) :1916-9.
25- Baltimore longitudinal study of aging, Neuropsychology, Lin Fr *et al.* 2011 Nov ;25(6) :763-70.
26- Hearing Loss and Incident Dementia, Archives of Neurology, Lin Fr *et al.* 2011; 68 (2) : 214-220.
27- *JAMA Intern Med.* online January 21, 2013, Hearing Loss May Be Related to Cognitive Decline in Older Adults.
28- Hearing Loss and Depression in Older Adults, *Journal of the American Geriatrics Society,* D. J. Mener *et al.* Volume 61, 1627–1629, Sept 2013; Negative consequences of uncorrected hearing loss - a review, Stig Arlinger, International Journal of Audiology 2003; 42:2S17–2S20.
29- Hearing loss and falls among older adults in the United States, Lin F, Ferrucci L. *Arch Intern Med* 2012; 172: 369-371. Hearing as a predictor of falls and postural balance in older female twins, Viljanen A, Kaprio J, Pyykkö I, *et al. J Gerontol A Biol Sci Med Sci.* 2009; 64(2):312-317.
30- The French National Institute for Health and Medical Research (INSERM) is a public establishment in France specializing in medical research.
31- *Audio infos* France, Hearing aids slow cognitive decline related to presbycusis, April 13, 2015.
32- *Bridget Shield*, Evaluation of the social and economic costs of hearing impairment, October 2006.
33- Ciorba A, Bianchini C, Pelucchi S, Pastore A. The impact of hearing loss on the quality of life of elderly adults. Clin Interv Aging. 2012;7(6):159–63. doi: 10.2147/CIA.S26059.

Competition law in health and public payment of care

"The specificity of healthcare prohibits competition law from becoming the only regulator"[34].
In 1963, Kenneth Arrow established the economic nature of healthcare activities and drew attention to "the asymmetry of information between the consumer of services and the professional offering these services". This implies demand that is "not very sensitive to changes in price", even when these markets are open. "Since determining state of health is difficult and subjective, (…) care is considered to be credence goods. (…) The relationship of trust that develops between the supplier and customer prevents behaviors of pure negotiation, and adjustment through prices"[35].
Asymmetry of information, reputation, trusting relationship, and inelastic demand to prices are all criteria that are found in the area of rehabilitation of hearing impairment.
"Competition through prices" translates in our sector into a reduction of the time spent with the patient. Therefore, "diminished" personal support leads directly to lower satisfaction. Satisfaction is correlated with support time, needed for initial patient training and follow-up by a professional[36]. "Mechanisms of competition cannot function like in other markets without running the risk of altering the quality of products and healthcare services. This is why competition law, if it is to govern this area, cannot do it alone. State intervention remains the rule in a sector that is poorly harmonized across the European Union"[37].

The high concentration of the need for hearing aids among persons over 65 years of age (in France, 75% of costs are concentrated on over 65s[38]), and the proven role of rehabilitation of hearing loss in the prevention of loss of autonomy, further reinforce the need to include payment of hearing aids in the range of care reimbursed by public healthcare systems in Europe.

What is the most efficient reimbursement scheme for hearing aids?

The IGAS studied the various management systems in Europe and found that "Two analysis criteria make it possible to understand the various systems for payment of technical devices in Europe: the higher the amount remaining as a patient contribution to acquire hearing aids, the higher their level of choice; on the contrary, the higher the public level of reimbursement, the more restricted patients are in their choice."[39]
In our sample, the countries of Northern Europe (Denmark, Norway and the UK) opted for a system of controlled supply, with a limited choice of devices and of professionals, and no contribution left to the patient. In Switzerland and France, the authorities placed a ceiling on the amount of reimbursement but allowed complete freedom for the patient to choose their healthcare professional and the characteristics of their hearing aids.
Germany is in an intermediate situation where the patient's contribution and freedom to choose a professional are in the middle of the range, since patients can opt for a basic hearing aid with limited possibilities and no patient contribution, or choose higher-level devices while paying the difference.
Analysis of the overall satisfaction rate and the compliance index are in favor of the model that provides for the greatest freedom for patients, both for the type and technical level of the hearing aid, and for the healthcare professional who will fit the device and provide patient training and regular follow-up over time. This remains true even if the patients need to take on part of the cost (with the exception of the population that has the lowest income and requires specific offers, depending on income, with no patient contribution).

The most efficient scheme therefore needs to include:

- rehabilitation starting from moderate hearing loss of 25 dB;
- the same amount of reimbursement irrespective of the patient's age or cause of hearing loss (congenital, acquired, accidental, occupational, etc.);
- complete freedom for the patient to choose their professional to promote "competition by quality";
- choice by the patient of their hearing solution, taking into account their hearing loss, their wishes, the financial contribution they wish to make, with the expertise and advice of a specialist in hearing solutions;
- independence of the professional in the choice of the best solution for their patient in terms of private funders and manufacturers;
- systematic choice, adjustment, supply, and follow-up by the same professional;
- flat-rate reimbursement by the public healthcare system with known periodicity, facilitating access to a quality hearing solution, enabling the patient to select more sophisticated devices if desired, and leaving the price difference to the patient (except for patients with the lowest income);

34- Thematic review "Droit de la concurrence et santé", Rapport annuel 2008 de l'Autorité de la Concurrence.
35- Ibid.
36- Sergei Kochkin, Reducing Hearing Instrument Returns with Consumer Education, *The Hearing Review*, October 1999.
37- Thematic study "Droit de la concurrence et santé", *op. cit.*
38- UNSAF overview, Hearing impaired primarily among the elderly. See http://www.unsaf.org/site/l-unsaf/les-syntheses-de-l-unsaf.html
39- Blanchard P., Strohl-Maffesoli H., Vincent B., *op. cit.*

• reliable patient information, from a public source, so that the patient can promote «competition by quality".

Areas of improvement in hearing aid reimbursement in the countries of interest

Italy:
One of the priorities for Italy would be to bring the rate of bilateral fitting, 44% in 2012, up to the mean of the other countries, 75%.
It would also be beneficial to implement a flat-rate for hearing aids from 25 dB of hearing loss irrespective of the cause (occupational deafness, presbycusis, etc.).
Denmark – Norway – United Kingdom:
With the AQP, the United Kingdom has broadened possibilities for patients (see above).
More generally, enabling the patient to choose their hearing professional and their hearing solution should be promoted in these three countries.
Reimbursement of a flat-rate to the patient (including for care through retail in the United Kingdom), with the freedom to choose a more sophisticated device and to pay the difference in price, should also be considered in order to improve the compliance index and overall satisfaction.
Germany:
The obligation for professionals to offer patients a solution with a cost between 685 and 800 Euros per ear covered by the insurances, with no contribution from the patient, meaning a flat rate twice as high as it was before 2014, could lead to lower satisfaction levels than those found in Switzerland and France[40].
The fact that this obligation exists may lead the patients to believe that this offer is sufficient to be satisfied. We should remember that about one third of patients choose this solution despite the results obtained with devices that have very limited possibilities.
Abandoning this obligation would enable patients to use their flat-rate reimbursement for solutions that are more qualitative, with the aim of reaching greater satisfaction.
France:
The main problem is the very low level of reimbursement: 120 Euros for the public system and 350 Euros on average for optional complementary healthcare insurance.
About 1,000 Euros per ear on average remain to be paid by adult patients and this amount prevents patients with low income from accessing hearing aids. As a result, people with hearing impairment in France are left with a disability that has unknown and underestimated consequences, and leaves the country with an imbalanced system of access to hearing rehabilitation.
This low level of reimbursement can even suggest to patients that it is not particularly useful or important to rehabilitate hearing impairments.
Improving public healthcare reimbursement is the priority and should make it possible to move closer to the fitting levels found in the countries that have satisfactory reimbursement in place.
Switzerland:
With the highest satisfaction levels of the studied countries, excellent results in fitting levels and the compliance index, Switzerland has the best overall results.
The Swiss public authorities must be made aware of the major public health impact of hearing impairment, the fact that it is impossible for competition law to be the only regulator of the sector, and lastly the significant operator-dependent nature of hearing care professionals who fit hearing aids.
Fitting of hearing aids must therefore be strictly limited to qualified professionals to avoid seeing a decrease in the overall satisfaction of patients[41].

Moving to the next level

Through the EuroTrak studies, EHIMA provides us with large amounts of data that help to better understand the hearing aids sector. It would be very useful to extend these studies to other countries, particularly Spain, the Netherlands, and Belgium. Hopefully, that all the countries scrutinized by EuroTrak in 2012, will in the end also be screened in 2015...
Finding out more about the product mix in the various countries would also help to improve analysis of the sector.
Once all the data are available from the EuroTrak 2015 studies and the Market Study of Western Europe 2014, it will be possible to study changes in the compliance index and level of satisfaction since this study.
The results, both in terms of compliance and satisfaction rates, are extremely close in Denmark, Norway and the UK. However, important differences in the share between the public and private markets can been observed from one country to another. Specific data should be collected in order to perform an in-depth analysis of each type of reimbursement scheme in these three countries.

Also, consideration should be given to the possibility of refining results by taking account of the differences between the existing coverage and prescription habits in said countries.

Acknowledgments

The author would like to thank Brice Jantzem, hearing aid specialist, and Richard Darbéra, Chairman of the Bucodes-SurdiFrance association for the hearing impaired for their review and contribution to this work.

40- Studies by GfK show that less than 5% of devices cost less than 800 Euros per ear in France. Switzerland has a product mix that is similar to that found in France.
41- Initial results of the EuroTrak 2015 studies were presented on April 10, 2015 at the Congress of Hearing Professionals held in Paris. They concern only Switzerland and France. The overall level of satisfaction in Switzerland changed from 84% to 81% between 2012 and 2015.