ABSTRACT

The MarkeTrak survey of the trends in hearing aid use, satisfaction and adoption in the United States has been conducted since 1989 by the Hearing Industries Association. It provide the hearing aid industry with valuable about the consumers view of the products and services within the industry. The EuroTrak survey is conducted by the European Hearing Instrument Manufactures Association. It is the counterpart to MarkeTrak and provides similar data for over a dozen countries in Europe, and Asia. While there are differences in the distribution models and reimbursement methods for these counties, many of the key metrics concerning hearing aid use and satisfaction can be compared.

KEYWORDS: hearing aid use, unaddressed hearing loss, global hearing loss data

In recent years, hearing health has made its way into the international spotlight. A focus from the U.S. Congress and White House on making hearing loss treatment more accessible with over-the-counter (OTC) hearing aids and the 2021 World Report on Hearing by the World Health Organization (WHO) have particularly brought attention to the growing incidence of unaddressed hearing loss and its implications on physical health, mental well-being, quality of life, and the economy. The World Report on Hearing was created as a call to action for the 194 WHO member states to address the high prevalence of unaddressed hearing loss and integrate people-centered ear care into each government’s national health care plans. WHO estimates that the annual global cost of unaddressed hearing loss is greater than

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$980 billion and at its current rate, hearing loss will affect approximately 2.5 billion people by 2050 \(^1\) (see Fig. 1).

This article looks at hearing loss in the United States, France, and Germany (Bisgaard N, 2022, personal communication) to note similarities and differences in these developed countries. Other country reports have been and will be issued by the European Hearing Instruments Manufacturers Association (EHIMA) and provide insights into more than a dozen markets including Denmark, Italy, the Netherlands, Switzerland, the United Kingdom, Japan, and New Zealand. Hearing aid market and consumer research has been conducted by the Hearing Industries Association (HIA) since 1989 with the most recent report, MarkeTrak 2022 (MT2022), released in May. The study is used to better understand estimated incidence of hearing loss within the United States, household income and education related to hearing aid use, satisfaction with hearing instruments, new user rates by age, and mental and physical health effects of hearing loss, among many others. Early MT2022 data can be found in the Hearing Review article by Powers and Carr, 2022.\(^2\) The trends in several key areas across the publications of MarkeTrak from 1989 to 2022 can be found in Carr and Kihm\(^3\) in this edition. EuroTrak (ET) studies provide insights into the markets of several countries in Europe, as well as Asia and Australia (https://www.ehima.com/surveys/).

HIA and EHIMA collaborated to incorporate common key questions/components into each survey to allow for comparisons and the study of trends between key markets. The comparisons include hearing aid adoption rates, satisfaction, self-reporting of hearing loss, and others. This article will compare the findings of two market surveys from Europe (France and Germany) to the U.S. market using MT2022 results.

The three markets that will be discussed in this article have very different delivery systems for hearing aids. The United States is primarily a private-pay market with limited insurance and government funding/reimbursement for hearing aids (Veterans Affairs, Department of Defense, and Medicare Advantage). Both France and Germany have highly socialized health care systems which include access to hearing aids for most individuals with hearing impairments of around 30 dB or higher in at least one ear. However, the data show there are some striking similarities to explore.

**METHODOLOGY**

MT2022 was fielded in late 2021, surveying 15,138 households and reaching 43,957 individuals. A pool of 3,218 individuals with self-reported hearing loss were identified and included in the extended survey. ET was fielded by Anovum on behalf of the European Hearing Instrument Manufacturers Association (EHIMA) in 2022. Currently, data are available only from France and Germany with additional countries surveyed but not yet released. The data for France included more than 14,000 individuals that resulted in over 1,300 responding as hearing impaired. It included roughly 700 owners and 600 hearing impaired non-owners of hearing devices. The data for Germany resulted in more than 13,000 individuals that resulted in over 1,300 responding as hearing impaired. It included roughly 700 owners and 600 non-owners of hearing devices. All three surveys were constructed to represent the overall population of their respective countries in terms of market size, age and size of household, income, and gender.
COMPARING SELF-REPORTED HEARING DIFFICULTY

The World Report on Hearing\(^1\) includes the global prevalence of hearing loss by age (Fig. 2) which provides a basis for comparison.

The overall self-reported hearing difficulty rate for the MT2022 was 10% and this rate has hovered between 10 and 11% since the initial survey in 1989. EuroTrak-France (ET-F) self-reported hearing difficulty was 11.9% for 2022, which is a decrease from the rate of 12.9% estimated in 2009. EuroTrak-Germany (ET-G) estimated self-reported hearing difficulty at 13.0% which is also a decrease from a rate of 15.1% estimated in 2009. It is speculated that the decreases in hearing difficulty could be attributed to an increased awareness of the role of hearing protection in both work and social situations. As seen in Fig. 3, the rates for Germany have shown steady decreases for all age groups. The rates for France are more stable.
and even show some increases in recent years for the youngest and oldest age groups.

MT2022 revealed the rate of self-reported hearing loss has increased for some age groups in comparison to responses gained in the MarkeTrak 10 report published in 2019 (Fig. 4). The percentage of the population reporting hearing loss increases more steeply after the age of 55 years, with more than half of the 85+ population reporting some form of hearing loss. This is a consistent pattern to the global hearing loss rate. One interesting finding was the slight decrease in hearing loss prevalence in Germany and slight increase in the younger age groups in France over the range of surveys in ET (Fig. 5).

Recent U.S. studies have associated an increase in teen and young adult hearing loss due to excessive exposure to loud environments and potentially an increased use of personal listening devices. Hearing loss in younger age groups can have social and educational implications; so, it will be important to remain watchful of increasing hearing loss rates in future Marke-Trak studies.

ADOPTION RATES

In 2000, the adoption rate for hearing aids in the United States was 22%; however, the adoption rate started to gradually increase and reached 38% in 2022. We see a similar trend in both the data from France and Germany (Fig. 6). The adoption rate for France started at 29.3% in 2000 and increased to 45.1% in 2022. For Germany, the adoption rate climbed from 31.8 to 41.2%. The adoption rate for those older than 65 years is 49% in the United States, 50.1% in France, and 44.8% in Germany.

One interesting finding in the ET data is the substantial increase in adoption rates for the two younger groups in the survey as shown in Fig. 7. This increase is more pronounced for the German data but also shows an increase for both the ≤44 and the 45- to 64-age segments in the data for France. As more people in these age groups take more interest in their overall health, it appears the uptake of hearing aids may be a result of this increased health awareness movement.

When we compare the adoption rates by severity of hearing difficulty, we find similar patterns across all three countries as shown in Fig. 8. In general, as the hearing loss becomes more severe, the adoption rates increase. The data from non-owners reveal that for many with mild-moderate hearing loss, they manage without devices by raising the volume of the TV or by asking others to repeat themselves. Those with more severe losses find these strategies unsuccessful and realize they need hearing devices for social interaction or for their work environment.

BINAURAL RATES

The rate of binaural fitting (one device in each ear) has remained stable over the past three MarkeTrak surveys, all falling within the range of 71 to 74% (with MT2022 at 71%).
and Germany’s binaural rates estimated in ET are similar, with France at 71% in 2018 and 73% in 2022, and Germany at 71% in 2018 and 74% in 2022. The binaural rates in France and Germany have risen from 62% and 64% in 2009.

**COCHLEAR IMPLANTS**

For many hearing-impaired individuals with severe to profound losses, cochlear implants provide significant benefit. The surveys for France and Germany did not collect data on implant patients directly but did ask about their knowledge of implants. MT2022 collected data from 83 respondents with cochlear implants and the data are reviewed in the article by Marinelli et al. They reported the global underutilization of cochlear implants is substantial and in the United States, only 10% of those patients who qualify for an implant received them. The critical issue is the lack of information on cochlear implants.

In the United States, only about 61% of adults (household head respondents) in the MT2022 survey were familiar or somewhat familiar with cochlear implants. In comparison, 72% of those surveyed in France and 69% of those surveyed in Germany had never heard of cochlear implants. This further confirms that the knowledge about cochlear implants needs a significant upgrade. As the threshold for implantation is reduced in some markets, more individuals with severe-profound losses could benefit, but they first need to know about the technology.

**SATISFACTION WITH CURRENT DEVICES**

In all of these surveys, current hearing aid owners were asked to rate their level of satisfaction with their current device. In MT2022, 83% of respondents indicated they were satisfied with their hearing aids, and eight in ten said their hearing aids work as well or better than expected. The most recent data from ET indicate that 77% of current hearing aid owners in Germany are satisfied along with 83% of hearing aid owners in France. Collectively across these
countries, the vast majority of current hearing aid owners are satisfied (Fig. 9).

SATISFACTION WITH HEARING PROFESSIONALS
The role of the hearing care professional is shown to be very important to hearing aid owners in these countries, and satisfaction rates with hearing care professionals are also quite high. In the United States, 91% of hearing aid owners are satisfied with their hearing care professional. In France, the satisfaction rate with the quality of service during fitting and follow-up care is 87%; the comparable rate in Germany is 89%. For a more complete overview of the satisfaction rating for hearing professionals in the United States, see the article by Picou7 in this edition.

ACCESSORIES AND APPS
When it comes to technology, one aspect that has become increasingly popular is the use of apps on a phone or tablet to control hearing aid functions. Apps can be used to change programs, adjust the volume, and/or allow for Bluetooth communication with mobile phones. Among hearing aid app users, satisfaction rates vary somewhat, but are still fairly high across all three markets. In the United States, 83% are satisfied with their hearing aid app; the same is true for 76% in Germany and 66% in France. Despite their popularity, data from all three markets indicate usage may be lower than expected. In France, only 35% of owners use their hearing aid app regularly, and it is even lower in both Germany and in the United States with a rate of 25%. It is possible that individuals who have this type of app installed by their hearing professional are assumed to be more familiar with apps in general or absorbing more of the detailed instructions than they actually are after the initial instruction. An important counseling step that needs to be completed by all hearing professionals is making sure that owners know how to make full use of these apps (and other features) in order to maximize and increase satisfaction with their overall hearing aid experience.

REIMBURSEMENT FOR DEVICES
The reimbursement model for hearing aids differs greatly between the United States, France, and Germany. In much of Europe, the cost of hearing aids and the associated services of a hearing care professional is commonly included in the general health system. In ET-France, approximately 89% of respondents had the total or partial cost of their hearing device and service covered, and in Germany, coverage was reported to be 94%. In the United States, MT2022 estimated that 54% of hearing aid owners had some level of third-party assistance covering the cost (partially or in total). For further information on financing hearing care in the United States, see the article by Windmill8 in this edition.

While cost is frequently mentioned as a deterrent, we see that even where the proportion with coverage is substantially higher, hearing aid adoption rates increase only slightly. For example, the ET-France’s hearing aid adoption rate is 46% and the ET-Germany’s adoption rate is 41%. These rates are only slightly higher than the MT2022 U.S. hearing aid adoption rate, estimated at 38%.

TIMING AND BENEFIT OF HEARING AID PURCHASE
One of the most interesting comparisons across the markets is the response to the question, “Do you think you should have gotten your hearing aid sooner?” Most respondents in all three markets agreed that they should have pursued
amplification sooner. The United States had the highest percentage at 65%, followed by France at 62%, and Germany at 59% (Fig. 10). When asked why they felt they should have acted sooner, the responses were strikingly similar. As seen in Fig. 11, the most common reason was an improved social life with the United States at 53%, France at 77%, and Germany at 66%. Perceived improvement in mental/emotional health was also asked and produced similar responses across the counties, with the United States at 40%, France at 44%, and Germany at 52%. There were also many who perceived improvements in work performance and less fatigue at the end of the day, although these were not as commonly noted.

**BRAND AWARENESS**

One surprising finding in MT2022 is the decrease in brand awareness among owners; that is, the consumer knowledge of the brand of their hearing aid. The MT2022 data indicate that 30% of current owners know their brand. This is a decrease from the two previous surveys, MT2019 at 44% and MT2015 at 43%. The most recent results for both France and Germany show higher current brand awareness at 52% for France and 41% for Germany.

It can be speculated that brand awareness may be more prevalent in Europe than in the United States, or that hearing professionals are more vigilant about confirming the brand to the patient at the time of the fitting. For some markets in Europe, the hearing care professional is required to try multiple brands (e.g., 30-day trial of each) with each patient, during which time the patient may become more aware of the brands in their evaluation.

**NON-OWNERS’ REASONS FOR NOT PROCEEDING WITH FITTING**

All three surveys included questions for non-owners of hearing aids to better understand the reasons why they do not take action to improve their hearing, given they indicated they have difficulty hearing. This data can help improve consumer information and messaging, the education of hearing and health professionals (especially general practice and ENT physicians), and the development of new technology. The U.S. and European markets differed on the top reasons, reflecting both the differences in delivery systems and cultural differences. In the United States, the top reasons for not getting a hearing aid were related to cost, insurance, and hearing loss not being severe enough. In France, the top reasons were related to physician opinion, cost, and not sufficiently restoring hearing. In Germany, the top reasons were hearing aids being uncomfortable, hearing well enough in most situations, and not sufficiently restoring hearing. The top 10 reasons reported from each country can be seen in Fig. 12. It is interesting that both France and Germany respondents mentioned that hearing aids do not restore hearing as a reason for not proceeding with a fitting. This is an example of a misperception that has led many people with hearing loss to delay getting devices. Hearing professionals, as well as advertising
and media messaging to consumers, need to inform individuals with hearing loss of the positive benefits of amplification and the ability to customize hearing aids to individuals’ specific loss, despite the reality that hearing aids cannot restore hearing.

CONCLUSIONS

As discussed, hearing and hearing health have become a global issue, specifically seen through the publication of the World Report on Hearing loss by WHO in 2021. In addition to the economic issues emerging from untreated hearing loss, it shed light on many comorbidities including physical health, mental well-being, and quality of life. To demonstrate the positive impact of hearing loss treatment, we have reviewed the market data on three counties with advanced hearing health care delivery systems.

Although the markets of the United States, France, and Germany have different reimbursement methods for hearing devices resulting in slightly higher adoption rates for France and Germany, there are several important similarities to note. Self-reported hearing loss is consistent across all markets averaging between 10 and 13%. Binaural fitting rates have remained consistent across markets at approximately 70 to 75%. Satisfaction with hearing professionals and devices remains high in all markets. Additionally, the data suggest that there is work to be done to increase the utilization of cochlear implants especially in the United States and to increase awareness and utilization in France and Germany where many are simply not aware of the technology. The same is true when it comes to the awareness of hearing aid technology, apps, and how to fully utilize all features and functions that come with adopting a hearing device. One positive finding in all markets was that more than 60% of respondents felt that they should have obtained a hearing device sooner and cited improved social interactions and less fatigue as primary reasons. The data demonstrate that hearing aid satisfaction is high and treating hearing can result in improved quality of life.

Other areas of hearing health that should be carefully watched in future studies are the rates of hearing loss in younger adults and teens. Data from all three countries already suggest increased levels of hearing loss for younger populations which has been linked to noise exposure from headsets and personal audio devices. The WHO report highlighted the increased need to reduce noise exposure in both work and recreational activities. The treatment of hearing loss can act as a driver for local economies by allowing more individuals to contribute their expertise and becoming productive members of society without communication barriers.

Figure 12 Top 10 reasons for non-owners for not having a hearing aid.
Although the counties reviewed (France, Germany, U.S.) are considered developed markets, recent advances may provide strategies that can be implemented in developing countries around the world. The release of the FDA regulations on OTC hearing aids in the United States for mild-moderate hearing loss may serve as a model for further distribution and adoption of devices in other countries. The increased use of remote and self-fitting options has increased the adoption rate by expanding the ability to receive services outside of the traditional office environment. MarkeTrak and ET data provide valuable information on the current state of the market for hearing care professionals and suppliers in their respective countries; however, it can also provide critical information on current consumer sentiments and future trends which could be beneficial lessons to other markets.

CONFLICT OF INTEREST
None declared.

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