Price reductions in hearing aids and access to audiologists, Israel
Limor Lavie a, & Tali Bar-Moshe b

Introduction

The World Health Organization (WHO) estimates that 466 million persons (more than 6.1% of the world’s population) live with disabling hearing loss. The prevalence of hearing loss increases with age, with the sharpest rise in adults older than 80 years. An estimated one-third of adults older than 65 years are affected by hearing loss, of whom 226 million have disabling hearing loss; this number is expected to rise to 585 million by 2050. WHO estimates that more than 700 million people (one in every 10 people) will need hearing rehabilitation by 2050.

Hearing rehabilitation requires both technological devices (such as hearing aids and assistive listening devices) and professional care. Rehabilitation is a complex process in which audiologists or hearing-care specialists map the communication needs and difficulties of the individual; consider multiple factors (configuration and level of hearing loss, medical comorbidities, dexterity, lifestyle and patient preferences); choose the appropriate device; discuss the patient’s expectations; solve problems; and provide listening strategies and auditory training. This professional practice aims to support continued use of the hearing devices and gain optimal benefit from their use. Hearing aids are the most common rehabilitation technological devices for people with hearing loss, but often their high price can be an obstacle to rehabilitation. Professional care also requires financial resources, which in turn raise the cost of hearing rehabilitation, making it tempting to rely solely on technology and reduce the role of professional counselling.

We describe the Israeli experience, where a scheme in which audiologists or hearing-care specialists map the comorbidities, dexterity, lifestyle and patient preferences; choose the appropriate device; discuss the patient’s expectations; solve problems; and provide listening strategies and auditory training. This professional practice aims to support continued use of the hearing devices and gain optimal benefit from their use. Hearing aids are the most common rehabilitation technological devices for people with hearing loss, but often their high price can be an obstacle to rehabilitation. Professional care also requires financial resources, which in turn raise the cost of hearing rehabilitation, making it tempting to rely solely on technology and reduce the role of professional counselling.

We describe the Israeli experience, where a scheme intended to lower the out-of-pocket costs of hearing aids to patients could risk disrupting the hearing rehabilitation process.

Problem
Hearing rehabilitation with hearing aids is a complex process which requires professional expertise and the involvement of audiologists or hearing-care specialists. Professional care, however, requires extra resources, making it tempting to rely solely on technology and reduce the role of professional counselling.

Approach
To reduce the out-of-pocket share for adults needing hearing rehabilitation, in 2011 the Israeli government tripled the subsidy for adult hearing aids by converting 3 years of subsidies into a triennial, enlarged fund. Regulations for providing hearing rehabilitation and a set of rules for tenders for the supply of hearing aids were issued.

Local setting
Auditory diagnosis and rehabilitation are included in the Israeli national health insurance system. Before 2011, the annual government-funded subsidy for hearing aids was negligible; hearing aids were expensive and bought mostly with patients’ own resources.

Relevant changes
A series of tenders for companies to supply hearing aids, aiming to control public and individual expenses, resulted in a large reduction in prices, which in turn raised the demand for hearing aids and increased public expenditure. As the price of hearing aids fell markedly, hearing rehabilitation is approaching a point of becoming limited to supplying hearing devices, while reducing the importance placed on professional elements of the rehabilitation course.

Lessons learnt
Lowering out-of-pocket costs for patients should not be the only consideration in hearing rehabilitation. Our goal should be to control public expenditure but also provide affordable hearing aids with sufficient intervention of hearing-care specialists, to ensure access to advanced technologies and proper professional care.

Local setting
The Israeli national health insurance law stipulates a set of health-care technologies and services, including auditory diagnosis and rehabilitation, which are provided to every resident of the country by four health maintenance organizations. Until 2011, the annual refund for adult hearing aids was low: up to 12% for basic technology hearing aids, and no more than 6% for high-end devices. This subsidy was negligible and not fully used; hearing aids were expensive and were bought mostly with patients’ own resources. The price of basic technology hearing aids was nearly equal to the average monthly salary, and hearing aids with more advanced technology cost around 2 months of the average wage. Indeed, in 2010 the Israeli Parliament Work, Welfare and Health Committee reported that fewer than 25,000 hearing aids were purchased in Israel every year.

Approach
In 2011, to reduce the out-of-pocket share for adult hearing rehabilitation, the Public Committee for Health Service Basket tripled the public subsidy for hearing aids for adults aged 65 years and older by converting 3 years’ subsidies into a triennial, enlarged fund of New Israeli Shekel, NIS 3000 (approximately 900 United States dollars, US$) per ear. The annual budget allocated to adult hearing aids was raised by NIS 42 million (about US$ 13 million), an increase that was estimated to cover around 20,000 hearing aids (10,000 people fitted bilaterally). Later, the eligibility was gradually broadened to all adults aged 18 years and older. In addition, the health authorities issued guidelines for the rehabilitation process and a set of regulations that determined rules.
for tenders for the supply of hearing aids, which aimed to control public and individual costs. As determined by these regulations and tenders, hearing rehabilitation with hearing aids should include the devices bundled together with a comprehensive process of counselling, fitting and follow-up provided by certified audiologists, as well as spare parts and 3.5 years full warranty on the hearing aids.11,12

**Relevant changes**

The reform was successful, and thousands of adults who previously could not afford to purchase hearing aids were now able to have proper hearing rehabilitation. The increased demand for hearing aids, however, raised the financial load on the health maintenance organizations, requiring an increase in the budget originally allocated for hearing rehabilitation. In 2011, during the first year after the reform, the health maintenance organizations spent more than five times the allocated budget.13 Over the following years, the annual sales of hearing aids nearly doubled compared with before the reform, and in 2016 the Parliament Information Centre reported that more than 42 000 hearing aids were fitted annually.7

In attempts to control public expenses, more than a dozen tenders to companies for the supply of hearing aids were issued by the health maintenance organizations during 2011–2022. The result was intense competition among hearing aid suppliers, who greatly reduced the prices, which in turn further increased the demand for hearing aids, and consequently increased public expenditure. As the number of tenders increased, the cost of hearing aids was reduced in some of the tenders below the hearing-aid subsidy to eligible individuals. Eventually, tenders focused on the price of hearing aids but continued to require the full audiological rehabilitation and service bundle.

**Lessons learnt**

As the price of hearing aids fell dramatically, hearing rehabilitation is approaching a point of becoming limited to supplying hearing aids as commodities with minimal professional care. Fortunately, the right to appropriate professional care is a core element of the Israeli medical system. Health maintenance organizations, suppliers and audiologists all insist that patients will receive the best available hearing aids and the best professional care. Our concern is that the pressure to reduce prices might result in attempts to waive the role of professional care in the rehabilitation process. Indeed, there have been attempts to deprive audiologists of essential components of their professional work.14 Hearing aids are classified as medical devices by many regulatory bodies,15,16 but when reducing the price is a major goal, it is tempting to rely solely or mainly on technology and to lessen the importance of professional components of the rehabilitation course.

The benefits of low-price hearing aids cannot be ignored, especially in low- and middle-income countries, in countries with no national health insurance or when audiology visits during hearing rehabilitation are paid for by the patient. Nevertheless, providing hearing aids at low prices, but with insufficient diagnosis, counselling and follow-up, can result in less than optimal rehabilitation and increased risk for non-use of the hearing aids.17

Research has demonstrated higher satisfaction and adoption rates when hearing aids were fitted according to audiology best practice as compared with self-selection of pre-programmed hearing aids.19 Satisfaction rates were higher even in a placebo group (no-amplification hearing aids) who interacted with a professional audiologist when receiving their devices, than in the self-selection group with no professional interaction. Audiology best practice in this study24 included careful fitting of the hearing aids and one orientation session with an audiologist. In Israel, practice also includes a trial period with multiple sessions dedicated to fine-tuning, problem-solving, instructions in use and communication skills training.20–22 This practice can enhance patient satisfaction, improve the odds of hearing aid adoption and ensure regular use of the devices.22 Moreover, for many individuals, self-adjustment and self-management of their devices with minimum professional guidance may be impossible.23

Untreated hearing loss in adults is correlated with increased odds of cognitive decline, loneliness, depression, falls and low quality of life.24 These outcomes can in turn result in an extra burden on both health and social budgets, emphasizing that it is essential to allocate a sufficient budget for hearing rehabilitation. In the Guidelines for hearing aids and services for developing countries, WHO acknowledged that while hearing aid costs should be kept low, the involvement of trained personnel in the course of hearing assessment and hearing aid fitting is an essential part of the rehabilitation process.25 Indeed, successful hearing health-care programmes in low- and middle-income countries not only provide affordable hearing devices but also train hearing health-care workers, raise awareness about the consequences of hearing loss and the rehabilitation process and use evidence-based fitting protocols.26

The Israeli reform increased the affordability of hearing aids for many individuals, but an unforeseen consequence was that regulations and multiple tenders increased bureaucracy, made the purchasing of hearing aids complicated for everyone involved and put the role of professional care at risk (Box 1). Israeli audiologists are mostly employees in private audiology clinics or in public hospitals, and only a few are self-employed. Most audiologists are supportive of the enlarged subsidy for hearing devices but are concerned about the potential ramifications of reducing the importance of professional care in the course of hearing aid fitting, with the potential undesirable consequences on their jobs and professional status. Thus, Israeli audiologists have been striving to increase awareness about the importance of professional adult hearing rehabilitation, such that government, and health-care and public authorities include the role of professional care in hearing aid fitting.24

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**Box 1. Summary of main lessons learnt**

- Lowering the cost of hearing aids should not be the only consideration in hearing rehabilitation.
- Best practice in hearing rehabilitation with hearing aids should include professional care.
- Audiologists should be involved in decision-making when their scope of practice and professional role are discussed and decided.
Cost should not be the only consideration in hearing rehabilitation. Our goal should be to control public expenditure but also keep prices reasonable to ensure access to advanced technologies and professional care. At the same time we need to ensure that proper counseling, fitting and maintenance are conducted, and that the medical conditions, and social and personal needs of patients are considered.

Competing interests: Both authors are senior audiologists in managerial positions and employees in a company that supplies hearing aids. In addition, both authors are board members (volunteers) of the Israeli Speech, Hearing and Language Association. The authors were not supported or funded by any organization or fund.

Abstract

In Israel, hearing aid prices were reduced and access to audiologists was improved. Hearing rehabilitation is a complex process requiring expertise and involvement of audiologists or hearing care specialists. However, professional care often relies on additional resources, which can lead to overspending on technology and neglecting professional counseling.

To reduce the direct costs of adults with hearing loss, the Israeli government increased the funding for hearing aids for adults in 2011, turning it into a triennial program. Various regulations were also established for the provision of hearing care services and the selection of hearing aid suppliers.

In Israel, hearing care is included in the national health insurance system. Before 2011, only a small annual budget was allocated, making hearing aids expensive and requiring patients to bear the cost. The introduction of competitive tendering for hearing aid suppliers led to significant price reductions, increasing demand and public expenditure.

As hearing aid prices decreased, hearing rehabilitation is becoming more dependent on hearing devices, with the professional elements of the rehabilitation process becoming less prominent.

Lessons from the field

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gouvernement était négligeable; les appareils auditive, coûteux, étaient généralement payés par les patients eux-mêmes.

**Changements significatifs** Une série d'appels d'offres ont été lancés auprès d'entreprises afin d'acquérir des prothèses auditives tout en gardant le contrôle sur les dépenses publiques et individuelles. Résultat: une forte diminution des prix qui, à son tour, a entraîné une augmentation de la demande en appareils auditive et des dépenses publiques. Avec la chute du prix des appareils auditive, la réadaptation se borne de plus en plus à la distribution de dispositifs d'aide à l'audition, négligeant l'importance censée être accordée à l'aspect professionnel du processus.

**Leçons tirées** Réduire les dépenses directes pour les patients n'est pas le seul élément à prendre en considération lorsqu'il s'agit de réadaptation auditive. Notre objectif devrait être de contrôler les dépenses publiques, mais aussi de proposer des appareils auditive abordables assortis d'une intervention suffisante de la part des spécialistes de l'audition, afin de garantir l'accès à des technologies de pointe et des soins professionnels appropriés.
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