



The health visitor network in Hungary: a unique system in Europe

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Abstract

The Hungarian health visitor network, established in 1915, is a unique system in Europe. Health visitors are highly qualified healthcare professionals whose traditional role is to promote and improve the physical, mental, and social well-being of families. They are specialised in women's health, pregnancy, mother, infant and child care, as well as the health protection of adolescents. Consequently, their function covers all stages of women's lives.

Keywords: Child health, health visitor, prevention, women health

Historical Background

Due to the human loss, the decreased birth rate, growing infant death, and deteriorating health conditions caused by World War I, there was an urgent need to solve the problems in the field of mother and child healthcare. Politicians, physicians, and aristocrats recognised this issue and recommended the establishment of a national organisation. Thus, the Stephanie Alliance was formed in 1915, which got its name after Stéphanie, Crown Princess of Austria. The nurses of the Alliance were responsible for the care of pregnant women and infants, as well as young children until 3 years of age in preventive institutes and the residential home of the family. The training of the nurses was only two weeks in the beginning.

In 1927, the alliance was reorganised by the Institute of Public Health and was made part of the public health network in Hungary. The service got the name of Green Cross Health Service, and the nurses called were Green Cross Nurses. Later on, they were responsible for mother and child healthcare, school healthcare, as well as home care and social care, and fought against sexually transmitted

diseases and tuberculosis. Care was provided in health-care institutes and schools, and they also made home visits regularly in their patients' residency. The training period of the nurses was increased to two years, the graduates received a dual degree: nursing and health visitor.

After the formation of the Ministry of Health in 1950, the Service left the name 'Green Cross,' turning it to simply the Health Visitor Network.

After 1975, the Hungarian preventive nurse system underwent significant reforms, mostly focused on the training. The development of technology and reforms of health politics has increased the demand for higher education for health visitors, thus from 1975, the training was elevated to the university level. From 1993, the training period was eight semesters, including theoretical as well as practical subjects (1, 2).

Workforce and access

In 2014, in Hungary, approximately 5200 health visitor posts were available in the healthcare system in primary

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care. On the national level, 92.9% of them were filled, implying regional disparities.

In 2014, approximately 76% of health visitors worked in full-term in primary care as a district health visitor, 20% as a school health visitor, and 1.5% in family planning institutes. One hundred percent were female. The health visitor network is almost complete in cities, but nationally there is a lack of health visitors, particularly in poorer regions of the country (especially Northern Hungary) (3).

Patients are allocated to local district health visitors according to the place of residence and are allowed to visit only the official district health visitor, who is generally employed by the municipalities. Open access is ensured by law, no payment or participation fees are incurred. Although the maximum number of patients/ district is 250 (which can be increased by 25% if there are no other option), a remarkable portion of health visitors also provides more than one district due to the human resource shortage in the health visitor network (4).

Training

Health visitor education is provided to health visitors with the purpose of preparing them for their duties and health visiting professionals. In Hungary, five universities offer a B.Sc. level health visitor degree: Semmelweis University in Budapest, University of Szeged, University of Debrecen, University of Pécs and University of Miskolc.

Health visitors are highly educated, the duration of the training is 8 semesters, consisting of both theoretical and practical courses. The program contains preparatory, professional, and sensitive professional courses. The sensitive professional knowledge consists the following courses: mental health practice in health visiting, neonatology and pediatrics, obstetrics and gynecology, nursing, developmental neurology, health visitor basic methodology, female healthcare, and pregnant care methodology, child development and care methodology, public care methodology, preventive family care, and fundamental family science.

The final semester consists exclusively of practice, actively working mentor health visitors with special training supervise, educate, and prepare students for health visitor work in districts and schools and evaluate them for universities (2).

M.Sc. education used to be available for students; however, future plans include offering health visitors M.Sc. education. Currently, graduates cannot continue their training at the Master's level.

Structure of the health visitor network in Hungary

Chief health visitor

Chief health visitors are posted at the national and county level to supervise the network of the district health visitors working in rural areas. At the top of the hierarchy, the national chief health visitor is followed by subregional chief health visitors, county chief health visitors, and district chief health visitors.

Chief health visitors at different levels develop and maintain a strong health visitor network, workforce, and practice. They ensure that population-based prenatal, and mother and child healthcare is delivered considering scientific evidence and individual need.

Methodological department (health visitor department methodology)

In 2014 the Methodological Department of the health visitor network was formed as a national-level organisation. The Department was established to support, develop, coordinate, and synchronise the training and research, and professional methods of care provided by health visitors such as primary care (maternal and child healthcare and school healthcare), inpatient care, and family care (5, 6).

Health visitors in primary care

Health visitors play a crucial role in executing preventive care in Hungary. They operate especially in primary care in districts and school healthcare.

District health visitor

Health visitors support health protection and health skills development of families by visiting them in their own homes and providing increasingly complex health and social care for patients and family members.

Their services are organised in districts with a population less than 5000, taking care of a maximum of 250 resident families per district. They work in close cooperation with GPs/pediatricians and have close relationships with their target population. In determining the districts, some aspects, enshrined by law, should be taken into account, such as the number of patients, the number and type of schools, and the number, health, and social status of the population in the district. In 2014, the number of available posts was 4003, of these 3681 were filled (6).

Health visitors hold counseling hours in their offices, perform home visits regularly at the residents of patients, provide school healthcare in schools and different health-promoting and health education activities in other community venues. The duration and frequency

Table 1. Duration of counseling for women and children

Counseling for women and pregnant	at least once a week, in minimum two hours
Counseling for infants, toddlers, preschoolers and youth	at least once a week, in minimum two hours
Community health promotion activities	frequency based on demand, pre-planned

Table 2. Frequency of home visits for women and children

Pregnant women	At least 4 times during pregnancy (the first visit has to be taken within 2 weeks after registration), in cases of patients with special demand at least ones/month and any time as needed
Women after delivery (giving birth-6 weeks)	Once/week in the first 6 weeks after delivery, the first visit has to be taken in 48 hours (except weekends and non-working days in which case the first visit can be delayed into the first workday)
Newborn (birth- 6 weeks)	Once/week in the first 6 weeks after birth, the first visit has to be taken in 48 hours (except weekends and non-working days in which case the first visit can be delayed into the first workday)
Infants (6 weeks-1 year)	At least 6 times/year, in cases of patients with special demand at least 6 times/year and any time as needed
Toddlers (1–3 years)	At least 4 times/year, in cases of patients with special demand at least 4 times/year and any time as needed
Preschoolers (3 years – beginning of school age) if the child is not in the community	At least 4 times/year, in cases of patients with special demand at least 4 times/year and any time as needed (immediately before going to school visit is compulsory)
Preschoolers (3 years – beginning of school age) if the child is in the community	At least 2 times/year, in cases of patients with special demand at least 2 times/year and any time as needed (right before going to school visit is compulsory)
School-age child who is out of education system	At least 2 times/year and any time if it is necessary

of counseling activities and home visits are established by the law (4, 5) (Table 1, 2)

Prenatal care

In Hungary, prenatal care is provided by district health visitors and gynecologists or midwives - depending on whether a pregnancy has high or normal risk - and GPs. When pregnancy is confirmed, the health visitor care plan must be discussed. Education is an important component of prenatal care. Information about physiologic changes occurring during pregnancy and preparation for the delivery process are key themes around which care issues and choices such as anesthesia and breastfeeding can be discussed. Regular screenings, counseling, and home visits have to be provided by health visitors (4, 5) (Tables 1, 2).

The initial antenatal care begins with collecting the mother's medical history and classifying her into a normal or high-risk group by a gynecologist. According to law, regular examinations performed by health visitors consist of mother's blood pressure, pulse, height, weight, pelvic examinations, fetal heart rate, urine and blood sugar tests, abdominal palpation, observation and examination of the oral cavity, skin, legs, and breasts (7).

According to the national database reported by health visitors annually, the average number of pregnant women per health visitor was 38.99 in 2014. The average number of pregnant women with high risk (health or social risk) was 19.11 per health visitor. The average number of health visitor in-office consultations was 4.17 per pregnant woman (6).

In 2014, the number of pregnant women who did not receive (or rejected) care provided by health visitors was 458, only 0.53% of the total number of women who gave birth in that year. Four-fifths (81.28%) of pregnant women meet with the district health visitor before the 12th gestational week. The average number of home visits during pregnancy was 2.99 per pregnant woman per health visitor (6).

Child healthcare

Regular monitoring of a child's health status has to be performed by health visitors in-office. This includes assessing the growth and physical, and mental and social development, as well as testing eyesight and hearing, controlling vaccinations, and providing information about a healthy lifestyle, and preventing infections. During the first year, the healthy infant is examined by the health

Table 3. Medical examination performed by health visitors in different ages

Assessment, examination	Infancy				Toddlerhood		Preschool			School age
	1 m	3 m	6 m	12 m/1 y	2 y	3 y	4 y	5 y	6 y	7–18 y (in every second year)
Anamnesis	•	•	•	•	•	•	•	•	•	•
Length/height and weight	•	•	•	•	•	•	•	•	•	•
Head circumference	•	•	•	•	•	•	•	•	•	
Physical development and nutritional status	•	•	•	•	•	•	•	•	•	• (+physical maturation in puberty)
Assessment of psychomotorical and mental development	•	•	•							
Assessment of social development and behavioral problems				•	•	•	•	•	•	•
Sensory screenings (eyesight, astigmatism, hearing)	•	•	•	•	•	•	•	•	•	• (+color vision)
Assessment of speech development				•	•	•	•	•	•	•
Development of locomotive system				•	•	•	•	•	•	•
Blood pressure						•	•	•	•	•
Thyroid palpation										• (from 4 th grade)

visitor at the age of 1 month, 3 months, 6 months, and 12 months. After the age of one year, children are examined once a year. Immediately before school age, children have to be taken to a complex preschool medical examination (4, 5) (Table 3). If there is any dysfunction or developmental problem, health visitors have to direct the family to the pediatrician/GP, because they do not have the right to refer the child to a specialist.

In 2014, the average number of first-time registered infants (age 0–11 months) by health visitors was 87,263 nationally. Some 8.1% of them were preterm infants, 2.3% were small for gestational age, and 1.7% were infants with disabilities. The rate of examined children during regular developmental screenings performed by health visitors is constantly high during the years. In 2014, nationally 97.4% among 1-year-old children, 93.9% among 3-year-old children, 93.1% among 5-year-old children (6).

Supporting and promoting breastfeeding is an integral part of the role of health visitors. Although breastfeeding is a natural act, it is also a learned behavior. Mothers require active support for establishing and sustaining appropriate breastfeeding techniques. District health vis-

itors also provide information about breastfeeding in pre-natal and postnatal care. Health visitors' early support of breastfeeding in maternity wards has also been proven to provide an impact on women's breastfeeding experiences. Nationally, in 2014, 35.6% of children were still breastfed after one year of age (6).

2. school health visitors

School health visitors play a variety of roles that have a positive impact on patterns of health behavior established during school years. The role of health visitors in schools encompasses both health and educational goals. Health visitors provide preventive services for children from first grade until they finish secondary school. Every child has to be examined thoroughly before entering school by a district health visitor and pediatrician/GP. The preventive healthcare in school healthcare services performed by health visitors includes: (1) primary prevention through health education, health promotion, infection prevention, control and supervision of the hygiene of the environment, and organising immunisation; (2) secondary prevention through screening in every second grade (Table 3); (3) perform an important role by addressing both major health and social problems experienced by students.

School health visitors are well-positioned to coordinate the school healthcare system in conjunction with school physicians. In 2014, there were 975 full-time health visitors in the system nationally (6).

Health visitors in inpatient care

In maternity units, services are provided by midwives, nurses, and health visitors. Health visitors provide preventive care mainly for mothers and infants during the early days after delivery in obstetrics and neonatal departments of hospitals. According to the protocol, institutes have to employ full-term health visitors if the annual birth rate is above 1500 and the number of beds is above 30 (8). Health visitors play an active role in preparing families for delivery, and they organise group meetings on different topics before giving birth. Furthermore, health visitors have a crucial role in supporting breastfeeding, teaching parents for infant care, giving advice about a healthy lifestyle, inform district health visitors and pediatricians/GPs about birth, and also participate in social care.

Health visitors for the protection of families

Health visitors, as trained pregnancy counselors, are responsible for family planning. This job requires postgraduate training. Although both positive and negative family planning are among their competences, the main profile due to the patients' demand is, unfortunately, the negative one. Pregnant women are given all the facts during these counsellings, not only about the procedure and potential complications, but about the developing child, predictable emotional difficulties, available social service to keep the unborn child with the mother and about adoption as well. In 2014, the number of filled posts was 71 nationally (6).

Role in social care

In Hungary, women's care and child care is multidisciplinary, provided by health visitors. Health visitors are responsible for helping women, pregnant women, children, families, and students to cope with the problems they are facing to improve their lives. Health visitors often serve as liaisons between different social and healthcare institutions. They provide assistance and advocacy to improve the social and physiological functioning of pregnant women, children, and families. Health visitors assist parents, locate foster homes, give information about adoptions, address abuse, help to create a safe and healthy environment for a newborn. School health visitors address problems such as truancy, inappropriate behavior, teenage pregnancy, sexually transmitted diseases, drug, tobacco and alcohol use, abuse, and poor grades. They also act as a liaison between students, homes, schools, protective services, courts, and other institutions.

If a healthcare or social care professional suspects any problem in the family, health visitors have to be informed and make extra home visits to address it and support the family.

In that case, if the pregnant woman or the family refuses the district health visitor's service in written form, it is mandatory for health visitors to officially inform the GP/pediatrician and the child welfare service. Since January 1st, 2017, rejecting the care of health visitors has been addressed as significant harm by the law (Act No. XXXI. 1997) (9).

If there is any suspected risk factor, poor environment, behavioral problem, and there is uncertainty whether the child can be raised in the family, health visitors have to write an evaluation study upon the request of hospital health visitors or other healthcare workers, professionals of child welfare services, courts or police (4, 9).

According to the database reported by health visitors in 2014, child neglect was perceived in 0.5% of families, child abuse was extremely low. Nationally, health visitors made 27,733 social interventions in 2014. The number of pregnant women and children with high risk, and the rate of social interventions present disparities in the geographic distribution in Hungary. In 2014, almost half of the social interventions by health visitors concentrated in the Central Hungarian region - which involves the Pest county and the Capital city (23.35%) - and in Western Transdanubia including Baranya, Somogy, and Tolna counties (21.63%) (6).

Reforms and new methods

Cervical screening by health visitors

The Hungarian opportunistic cervical screening program used to be on different bases compared with the EU. Cervical screening was a part of routine gynecologic examinations for a long time. Due to the high mortality rate, a nationwide screening program was introduced in 2003, covering the female population aged between 25 and 65 years. According to the protocol, cervical screening was recommended every three years. The method was an invitation-based call and recall technique, the screening itself being performed by gynecologists. However, the participation rate was not satisfying, particularly because the majority of women continued to receive screening from a gynecologist and outside this program. The attendance rate was far from the optimal level in 2007 (24.3%) (10). To increase participation and improve compliance, health visitors as preventive primary care professionals became involved in the screening program. Since 2015, cervical

screening has been a new competence of health visitors, as addressed by the law (11). Health visitors can motivate and encourage age range of the population specifically, who have never or hardly ever attended a screening. After a complex theoretical and practical training for health visitors, their offices are equipped with information technology (IT) and gynecologic instruments needed for smear taking. The main tasks of health visitors in connection with cervical screening are the following: invite women personally in their district, based on the National Screening Registry; give pre-screening information; take smears for cytologic examination and send them to laboratories for analysis; advise women to see a gynecologist if the test is positive; give personally tailored advice for women about healthy lifestyle, screenings, and sexual behavior (4, 12, 13).

HPV vaccination in schools

After the Hungarian national cervical cancer screening program available for all women aged 25–65 years was established in 2003, the Hungarian government decided to finance (totally or partially) the HPV vaccination for underage and young adult females around 2009. From 2014, vaccination against HPV was recommended and made available free-of-charge for 12–13-year-old schoolgirls in Hungary as a part of the optional school vaccination program (grade 7) (11, 14, 15). However, the health visitors do not perform invasive interventions, they have a crucial role in coordination and reporting data.

Data report and information systems

There is no centralized system in Hungary that coordinates and registers all the activities of all types of health visitors and pediatricians. However, there are many single or sometimes parallel systems organised by the National Public Health and Medical Officer Service (NPHMOS) or other non-governmental services. Currently, health visitors document twice, once on paper, once electronically. As a solution of these problems, a new development (eVIR - electronic health visitor information system) was introduced in November 2016. This is an information system for health visitors to register patients and interventions and report data (16).

Hospital health visitors use the 'OSZIR' system in the interface of NPHMOS to inform the local district health visitors about births (16). These notifications contain data about the type of birth, anesthesia, complications, weight, length, head and chest circumference, Apgar score of newborns, results of screening, and social interventions if it was needed, also on the days of birth and leaving the hospital. The day of the first notification has to be the day of birth, and the second one has to be the day of dis-

charge. Unfortunately, GPs/pediatricians are not connected to this system, thus health visitors have to find another way to inform them. In the future, the desired objective is to create a common communication system between healthcare professionals in inpatient and primary care also, and to use exclusively electronic records.

Conclusion

The one-century-old Hungarian health visitor network operates as a unique system in Europe. Health visitors are highly educated healthcare professionals, they support health protection, health, and social skill development in families. Also, they are specialised in fields such as women's health, prenatal care, child healthcare, school health. Health visitors deliver care mainly in primary care, but they are present in school health and inpatient care also. Traditionally, they perform home visits regularly and also play a crucial role in social care.

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