“The idea for Le-Nest was formed when we realized the potential of preventive health care and improved health management skills among community members to lower costs and increase efficiency in the healthcare system. As it is, most people seeking health care completely bypass primary health care facilities, seeking care instead at overburdened tier-three hospitals. This will simply not work with China’s increasingly aging population and growing chronic disease burden.”
- Limin Gao, Founder

**Characteristics**

<table>
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<tr>
<th>Country</th>
<th>China</th>
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<tbody>
<tr>
<td><strong>Target Population</strong></td>
<td>Older adults and elderly</td>
</tr>
<tr>
<td><strong>Geographical Reach</strong></td>
<td>Urban</td>
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<tr>
<td><strong>Organization Type</strong></td>
<td>Private not-for-profit</td>
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<tr>
<td><strong>Form of Care</strong></td>
<td>Primary care</td>
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<td></td>
<td>Prevention</td>
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<td>Chronic diseases</td>
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<td>Rehabilitative care</td>
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<tr>
<td><strong>Innovation Type</strong></td>
<td>Align with patients’ locations and behaviors</td>
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<td></td>
<td>Leverage others’ networks and assets</td>
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Description of Innovation

Le-Nest is a not-for-profit private organization launched at the end of 2009 in Shanghai, China. Set up by a group of traditional medicine students with technical support from Shanghai University of Traditional Chinese Medicine, Fudan University and its affiliated hospitals, and other medical institutions, Le-Nest aims to alleviate the non-communicable disease (NCD) burden for elderly residents in the community by providing services such as disease management education (DME), physical and psychological health interventions, physical therapy, and health system navigation counseling. Le-Nest delivers these services at community-based health stations.

Their first community health station was established in Huamu Street, Lianyang, Pudong District, in 2009. By the end of 2012 Le-Nest had established five other community health stations in Putuo District, Shanghai and one more in Gaoxing Town, Pudong District, Shanghai in 2013, altogether serving a total of 2,000 elderly people.

Le-Nest targets the elderly who are suffering from NCDs, particularly hypertension and diabetes, and provides NCD prevention and management in the community. For those who can function well outside of the home, Le-Nest provides DME and interventions through professionally designed health activities. For those whose ability is restricted, Le-Nest provides home-visit physical therapy services. Members that require referral to a primary care facility or hospital are counseled on health system navigation as it can be difficult to obtain appointments and necessary medicines at overburdened health facilities.

DME is conducted by trained volunteers who are typically recently retired community health workers with a basic medical background, facilitating a win-win situation by providing an active role for the newly retired, as well as creating a channel for quick and convenient transfer of health information to elderly community residents. When required, physical therapists make weekly home visits, teaching disease management skills to patients and caregivers. Apart from DME, health interventions, and physical therapy, Le-Nest also strives to address psychological issues affecting the elderly, such as loneliness, anxiety, and depression, by arranging peer education activities to help members build social and emotional support systems.

The benefits of NCD care is magnified by health education, disease management skills, and in-home physical therapy further reducing...
hospital visits and saving patients’ money, time, and effort, which is especially important to the elderly whose mobility is often restricted.

Le-Nest charges an annual membership fee of 365 RMB (about USD $60). Their goal is to decrease out-of-pocket expenses for members by minimizing the risk of high-cost clinical health care for unpredictable complications. Rather than compete with hospitals, Le-Nest’s model has been designed to create a bridge between hospitals and elderly patients. They collect detailed information about each physician in nearby health care facilities, including specialties and physician personalities, and provide this information to members to help inform their decisions as they seek care. They also offer advice about how to effectively inform their doctors of their symptoms and work to persuade their members to visit under-utilized primary care facilities instead of overburdened tier-three hospitals for non-critical healthcare needs. Le-Nest aims to build mutually beneficial physician-patient relationships while improving the overall flow of patients in the health system.

The Iron Triangle of Health Care

Le-Nest increases **access** by providing care within the community and connecting members with under-utilized primary care facilities with shorter wait times.

Le-Nest increases the **quality** of healthcare by using a community-based model that allows for increased patient involvement, follow-up, and feedback opportunities.

Le-Nest decreases healthcare **costs** by promoting preventive health care, chronic disease management, and increased referral to primary health facilities. These initiatives decrease unnecessary hospital admissions and out-of-pocket expenditures as well as overall health system costs.
Providing Value to the Patient, Community, and Health System

Le-Nest helps the elderly with NCD management as well as psychological wellbeing. China is now one of the most rapidly aging countries worldwide. NCD care and management among the elderly has become an increasingly important social and public health issue in China because elderly populations are more vulnerable to NCDs such as diabetes and hypertension.

Though care for the elderly has traditionally been seen as a family responsibility in China, this is becoming less feasible given recent demographic patterns. The one-child policy in China has led to a “four-two-one” family structure (four grandparents, two parents and one child). After the only child grows up and leaves home for university and work, the older family members are often left without anyone to attend to their physical and psychological needs. Although nursing homes can assist the elderly, there are not currently enough nursing homes to meet the needs of the aging population in China. By providing health education and interventions, Le-Nest addresses both the physical and psychological needs of the elderly and helps them to build support structures within their community and with their peers.

In China, the varying quality of doctors combined with self-referral policies has led to overcrowded tier-three hospitals and imbalanced patient loads between doctors in comprehensive hospitals and those in primary healthcare facilities. A lack of trust of doctors in primary healthcare facilities drives people to tier-three hospitals for common and non-critical diseases. The education and counseling services offered by Le-Nest to improve doctor-patient relationships and steer patients toward high-quality doctors in primary care facilities alleviates the tremendous burden of outpatient visits on tier-three hospitals. This effort has resulted in an increased number of visits to primary healthcare facilities by Le-Nest members and a high level of patient satisfaction.

Le-Nest is also pioneering the concept of preventive care in China and has integrated prevention into every aspect of their services with the intent of raising overall awareness of preventive care among their members, the health system, and policy makers. Le-Nest’s philosophy is that effective health prevention can vastly reduce healthcare expenditures. However, this concept is not widely accepted in China. Initial findings from Le-Nest indicate that preventive care, such as routine check-ups, is correlated with reduced healthcare spending among their members.
Health System and Policy Context

The Chinese healthcare system has largely supported the establishment and replication of Le-Nest. The vast majority of healthcare provider regulations and policies are exclusively focused on clinical health care providers, such as private hospitals, with few restrictions on preventive care providers like Le-Nest. Le-Nest has received substantial support from the Shanghai Government, the Bureau of Civil Affairs, and local sub-district offices. Their first community station in Pudong New District was funded by the Shanghai Government. Subsequent stations in Putuo District received financial support from the Bureau of Civil Affairs. Although government funding has been critical to the establishment and piloting of the model, Le-Nest is now focusing on transitioning to a self-sustaining funding model using membership fees.

Operating Model

Le-Nest efficiently leverages the infrastructure and human resources already available in each community, such as existing activity rooms for DME and other activities. Volunteers are recruited from among the recently retired residents in the community who are looking for a fulfilling role to play. Le-Nest also partners with local primary healthcare facilities to facilitate better relationships between doctors and patients.

DME is conducted through a series of health education activities centered on different health topics such as low-sodium diets. Le-Nest determines the health education themes with input from members about their primary needs. To ensure standardization across activities, volunteers prepare clear outlines of the content for each activity based on templates designed by professional team members. The activity process is recorded for monitoring purposes and the core team members perform consistency checks. For the home-visit physical therapy service, members are screened based on their health records and, with the help of the community committee, volunteers communicate with them about their willingness to accept the service. The service is provided once a week by two physical therapists. Psychological wellbeing is promoted through entertainment activities and outdoor exercises like hiking, which also encourage involvement of family members in their loved one’s care.
Business Model
Le-Nest generates revenue from the local government and membership fees. Private donors, including wealthy community residents, businesses, and social institutions provide additional financial support. Le-Nest did not collect any membership fees when it was first established in Pudong and Putuo Districts; all startup capital came from the government. Le-Nest has since begun to charge a small membership fee to establish long-term sustainability of their organization.

The membership fee level is determined by operating costs, including staff salaries and activity expenses, and affordability for the elderly community residents. It is currently set at 365 RMB (about USD $60) per year for each member.

Le-Nest has struggled to ensure high payment rates during the transition to a membership fee model because members are used to receiving the services for free. Le-Nest has begun targeting the adult children of their members to ensure higher rates of accounts paid in full. The community station in Pudong is close to achieving financial sustainability with eighty percent of members paying membership fees. The stations in Putuo district are currently transitioning to the membership fee model.

Impact Metrics
Quality Metrics
- Volunteer performance indicators recorded during follow-up calls with Le-Nest members
- Quality and consistency activity indicators routinely recorded at each station every month
- Random check of quality indicators of ongoing health education activities

Access and Utilization Metrics
- Number of members enrolled
- Number of routine check-ups provided for each patient

User satisfaction metrics
- Feedback from activity participants
- Follow-up visit feedback for the in-home physical therapy service

Achievement of positive health outcomes
- Health indicators at each check-up visit

“Since our founding we have realized the value of collecting detailed health and impact data. Le-Nest is now focusing on carrying out more rigorous impact evaluations that will be able to help with the development and adjustment of our current programs.”

Limin Gao, Founder
Goals for Scaling and Replication
Le-Nest is focused on maturing its model to achieve more systematic operation and efficient administration in the next few years. The organization plans to reach financial sustainability in the five stations in the Putuo District by promoting the membership fee system. The team prefers to rigorously test and fine-tune their model and increase awareness of the importance of preventive care before replicating further.

External Support Required for Scaling and Replication
1. Funding for research and development.
2. Partner with academic institutions to improve and evaluate education courses and health interventions.
3. Partner with IT professionals to support the development and implementation of mHealth interventions.