“The chair of a Family Medicine department said to me that some of his patients could be taken care of by a good grandmother, that we don’t need to provide all the care we are providing. When I heard this, I checked it with another Family Medicine department chair and he agreed. He also thought that the majority of his current patients could probably be cared for entirely by nurse practitioners. The question is who needs to provide primary care? In today’s world, that means leveraging everyone to the height of what they can do, including the patient.”

–Arthur Garson, Founder and Chairman

Characteristics

<table>
<thead>
<tr>
<th>Countries</th>
<th>USA</th>
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<tbody>
<tr>
<td></td>
<td>Bangladesh</td>
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<td></td>
<td>Indonesia</td>
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<table>
<thead>
<tr>
<th>Target Population</th>
<th>General population</th>
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<tbody>
<tr>
<td></td>
<td>Adults</td>
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<td></td>
<td>Older adults and elderly</td>
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<tr>
<td></td>
<td>Pregnant women</td>
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<tr>
<td></td>
<td>Infants and young children, ages 0 to 4</td>
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<td></td>
<td>Children and youth, ages 5 and older</td>
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<thead>
<tr>
<th>Geographical Reach</th>
<th>Multinational</th>
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<tbody>
<tr>
<td></td>
<td>Urban</td>
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<td></td>
<td>Suburban/peri-urban</td>
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<tr>
<td></td>
<td>Rural</td>
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<table>
<thead>
<tr>
<th>Organization Type</th>
<th>Private for-profit</th>
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<thead>
<tr>
<th>Form of Care</th>
<th>Primary care</th>
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<tbody>
<tr>
<td></td>
<td>Prevention</td>
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<tr>
<td></td>
<td>Chronic diseases</td>
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<tr>
<td></td>
<td>Transitional care (from hospital to home</td>
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<td></td>
<td>Rehabilitative care</td>
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<td></td>
<td>Maternal and child health</td>
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<td>Palliative care</td>
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<tr>
<th>Innovation Type</th>
<th>Right-skill the workforce</th>
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<tbody>
<tr>
<td></td>
<td>Standardize operating procedures</td>
</tr>
<tr>
<td></td>
<td>Leverage others’ networks and assets</td>
</tr>
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<td></td>
<td>Use proven technologies discretively</td>
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| Website           | www.grand-aides.com              |
Description of Innovation

Grand-Aides® is an innovative health care workforce model, a personalized way to connect the patient and care team quickly, at low cost. Grand-Aides workers, regardless of age, have the temperaments and personalities of a good grandparent. A Grand-Aide is well trained and certified in medical care to work as part of a team. Under close supervision by a nurse or physician, Grand-Aides use protocols of questions and home visits to provide simple primary care as well as prevention, and transitional and chronic disease management after hospital discharge. They use portable telemedicine if Internet is available. The Grand-Aides organization trains local supervisors who then train the local Grand-Aides.

The Grand-Aides model address the following issues for both adults and children:
1. Overcrowding in busy clinics and emergency departments; 2. Improved management of chronic disease, to keep patients as healthy as possible and out of the hospital, reducing both readmissions and admissions; 3. Improved access to care in rural areas for those who have little or none.

Transitional/Chronic Care Grand-Aides accompany the patient home the day of discharge and make daily visits as needed for those with chronic disease (e.g. congestive heart failure, AMI, pneumonia) with the goal of a 25% to 50% reduction in 30-day readmission. The American College of Cardiology has endorsed Grand-Aides in their Hospital-to-Home program to reduce

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“The Grand-Aide brings the patient into the mix and then leverages the nurses and doctors to do what they uniquely can do. The whole concept is to take well-trained people and bring the patient into the picture.”

Arthur Garson, Founder and Chairman

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The Iron Triangle of Health Care

Grand-Aides increase access by helping to provide care where the patients are, using home visits and telemedicine, leveraging physicians and nurses with 6 Grand-Aides to 1 supervisor.

Grand-Aides improve quality of care by improving patient education, medication adherence, and overall health outcomes while helping to deliver care at home, connecting patients with the care team.

The Grand-Aides model leverages well trained, less expensive human capital through right-skilling and reduces unneeded emergency department, clinic, and hospital visits, decreasing cost of care for patients and health systems.
readmissions. A pilot of 10 to 15 institutions will begin in the US in 2013, with Vanderbilt as coordinating center.

Grand-Aides also currently operates several additional programs in the US, including a primary care program with two HMOs, each with 20,000 children, 2,000 pregnant women, and 1,500 dual eligible patients. The organization has built an obesity program in partnership with a YMCA, starting with one location with plans to scale to the other 20 YMCA locations in the area. In addition, they have a school health program with school nurse supervisors operating in ten schools.

Internationally, the Grand-Aides organization has created a program and protocols to begin training 87,000 Grand-Aides in Bangladesh. Importantly, this number represents one Grand-Aide per village. In Indonesia, Grand-Aides is working with a large bank that makes micro loans; the first group of 50 Grand-Aides has been trained to help keep the customers healthy. This program is designed to scale to several thousand Grand-Aides providing care for 5 million people. In addition to these programs, discussions are in planning stages with nearly 30 locations in the US, as well as 26 other countries, including Brazil, China, France, Italy, Jamaica, Malaysia, Myanmar, Singapore, South Africa, Spain, St. Kitts, and the UK.

Founded in 2011, Grand-Aides has been chosen by the US Agency for Healthcare Research and Quality as one of the top three innovations of 2013.

Providing Value to the Patient, Community, and Health System

Over the next 10 years, the US is projected to face a shortage of 100,000 physicians and up to 1 million nurses, an issue that will be compounded by recent health care reform intended to increase the insured population. Overcrowded emergency departments and public hospitals in urban areas, as well as economically and/or geographically isolated rural areas are experiencing shortages of healthcare workers. As the age demographics of the US continue to shift, a growing older population will mean increased incidence of chronic disease. There is a pressing need for improved access, reduced cost and improved quality of care in the US, particularly among the aging population.

Similar trends of healthcare worker shortages and overburdened health facilities have been identified in other countries, including emerging economies. The Grand-Aides model can easily be integrated into local health care delivery networks by using established local community health workers. The flexibility of
the model allows Grand-Aides to tailor their model to specific country contexts and address the most common diseases affecting any given community.

The Grand-Aides model is designed to reduce unnecessary emergency, clinic and hospital visits in an effort to lower medical costs and decrease the burden of rising numbers of patients in overcrowded medical facilities. The model can also be used to increase access to care in underserved rural areas. Under supervision by a nurse or physician, Grand-Aides use telemedicine and home visits to increase access to transitional care and chronic disease management, as well as primary care and preventive medicine. Through patient education and providing a bridge between patients and the health team, Grand-Aides leverage patients and their families to take a more active role in their care and health management.

Pilot studies of the Primary Care Grand-Aides program (published in the May 2012 issue of Health Affairs) demonstrate the power of this model: 62% of visits in a pediatric primary care clinic in Houston and 74% of visits to an Emergency Department in rural Virginia by Medicaid patients could have been initially cared for with a Primary Care Grand-Aide and nurse supervisor.

Health System and Policy Context

The Grand-Aides model addresses challenges faced by health systems around the globe: providing care in rural areas, reducing unnecessary hospital admissions, and empowering patients and their families with education about their health. The model is inherently flexible and can adapt to local contexts, including available human capital and differing healthcare regulation and policies.

In each location, Grand-Aides begins with a model of approximately how many people can be served by individual Grand-Aides performing each type of service and then they adapt the particulars to each country. In an effort to not recreate existing roles, they try to identify what is already present and fit the model to the current workforce hierarchy. For example, in some rural areas of Bangladesh and Indonesia, there are no trained health workers so Grand-Aides finds the lay people who have already been delivery babies or informal medical care and trains them to provide consistent care and builds a supervisory infrastructure.

“Every place is different and this is what makes it interesting, challenging, and fun. But the similarities are there... Approaches to prevention of unnecessary readmissions and emergency department visits are similar and all involve intense education of the patient and family, as well as having a trusting relationship with the Grand-Aide.”

Arthur Garson, Founder and Chairman
The Grand-Aides organization customizes manuals for each location, depending on what needs to be taught and how that system prefers to deal with protocols for care. The way in which Grand-Aides leverage patients, doctors, and nurses differs by location but the concept of using well-trained caring experienced lay people supervised by health professionals is the same.

Grand-Aides is actively operating in 3 countries and in discussion with systems in 26 other countries. They have experienced supportive reception of their model in these countries. However, throughout the discussions and planning efforts, they have encountered the challenge of the limited tenure of senior level political leaders; with political turnover, discussions sometimes must begin all over again.

Operating Model

Grand-Aides operates within six distinct settings of care including transitional or chronic care, primary care, maternal-infant care, school-based care, palliative care and rural care delivery. The country and context of operation determines which setting of care Grand-Aids will pursue. By leveraging the established social networks and local knowledge of the Grand-Aides themselves, the model can provide access to care for budget-constrained and hard-to-reach populations. The model manages patient flow, beginning with the least-expensive level of care, to ensure that the right care can be given to patients in a timely manner.

The Grand-Aides model standardizes the process of health care delivery within all settings of care by using strict protocols during telemedicine consultations and home visits. Grand-Aides leverage available technology when possible, such as iPads and automated blood pressure cuffs, to collect patient information, make reports, and interface with supervisors. Typically, Grand-Aides spend about an hour providing patient education, reviewing the treatment or discharge regimen, and going through a list of pre-specified yes/no questions with the patient. When Internet access is available for home visits, the Grand-Aide transmits the answers to the supervising nurse and connects with the nurse by video for about 5 minutes. When Internet is not available, the Grand-Aide connects with the supervising nurse by phone. There is no assessment and no delegation of decision-making done on the behalf of the Grand-Aide. The nurse makes a final decision on how to move forward and how to involve a physician if necessary. All medical advise and dispensing of prescription medication is carried out by the supervising nurse and/or physician.

Grand-Aides are employed by health plans, clinics, hospitals, and large employers, such as BTBN Bank in Indonesia. Texas has incorporated Grand-Aides into their Medicaid program; other states in the US have followed suit.
Grand-Aides are paid in each program but the payment and incentive structures vary by location. Every Grand-Aide worker undergoes an intensive training and certification process, lasting approximately 200 hours over the course of one to two months. Standardized curricula have been developed for the U.S. and adapted for use around the world. The Grand-Aides organization trains supervisors who then train the Grand-Aides. Supervisor training lasts approximately four days and includes specific information about the Grand-Aide programs and protocols as well as information about training adults. The training curriculum for Grand-Aides includes basic medical knowledge and disease-specific knowledge, with an emphasis on Grand-Aides protocols. Following training, Grand Aides must obtain certification by passing the Grand-Aides certification test and approval from their supervisor. All Grand-Aides must obtain certification annually.

Business Model
Grand-Aides operates as a for-profit organization, relying on program fees from clinics, hospitals or other employers implementing Grand-Aides. Fees cover customization of the manuals and protocols used during treatment, training the institution’s trainers, continued oversight and data collection and analysis. As each Grand-Aides program is different, the fee depends on the complexity and scale of program being operated. Grand-Aides hopes to increase revenue sourced from grants as they continue to scale their model.

Impact Metrics
PRIMARY CARE
• Medical outcomes of initial Grand-Aide call (e.g. visit, stayed home, E.D., clinic, hospital admit)
• Medical outcomes of Grand-Aide call – 2-day and 7-day follow-up
• Reduction in visits to primary care physicians / nurses
• Reduction in emergency department visits
• Number of hospital admissions, length of stay, and reason for admission
• Reduction in number of hospital admissions
• Costs associated with each of the above
• Number of work days and school days missed due to illness
• Medical outcomes
• Satisfaction of patients, families, practitioners, and Grand-Aides with Grand-Aides Program
• Satisfaction of Grand-Aides with their own self image and health

CHRONIC DISEASE
• Demographics
• Clinical characteristics
• Condition of home environment
• Process measures
  ○ Hospitalization (from index admission to one year) and diagnosis
  ○ Readmissions and diagnosis
  ○ Length of stay
  ○ Expense
• Morisky Medication Adherence Scale
• Depression scale
• Outcome measures (e.g. health status)
• Program satisfaction: patient/family; Grand-Aide; supervisor

Goals for Scaling and Replication
1. Create a reproducible model for Grand-Aides primary care in every village of underserved countries (e.g. Bangladesh and Myanmar) through governments or large employers
2. Create models for country-wide Grand-Aides chronic disease care in at least 15 developed countries
3. Create public and private payer models for Grand-Aides primary, chronic, and school-based care in the U.S.

External Support Required for Scaling and Replication
1. Introductions to and networking with business leaders in organizations that can help Grand-Aides achieve scale in their programs (including organizations that could use Grand-Aides)
2. Find contacts in governments interested in using Grand-Aides
3. Sharing challenges and best practices with similar innovators
4. Access to potential investors

“The difference here from community health worker programs is that Grand-Aides are trained with a consistent curriculum that is customized to the location, they can do both primary and chronic care, and are closely supervised. We have very tightly collected outcomes. We find out what the local goals are and then we create programs around those goals.”

Arthur Garson, Founder and Chairman
Selected Media Attention and Awards

Chosen as one of the top 3 innovations in 2013 by the AHRQ Innovations Exchange.


*Houston Chronicle* (Nov 11, 2011). Texas will need 10,000 new physicians over the next 10 years: True or false? http://www.chron.com/default/article/Texas-will-need-10-000-new-physicians-over-the-2264817.php


Last updated March 29, 2013

*Grand-Aides provided the source data for this document and is responsible for the accuracy of the content.*