

Review of the Grand-Aides Program and Similar Models of Health Care Delivery

JOINT COMMISSION ON HEALTH CARE
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Michele Chesser, Ph.D.
Senior Health Policy Analyst

Study Mandate

- ▣ HJR 571 (Delegate Hope) directed JCHC to study the feasibility of developing a program of trained primary care personnel to extend the reach of primary care services and reduce health care costs in the Commonwealth
 - ▣ Study was left in House Rules Committee
 - ▣ By letter to JCHC Chair, Delegate Hope requested that JCHC conduct the study
 - ▣ Study was agreed to by JCHC members

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Health Care System Challenges

- ❑ Primary care physician shortages and limited access to appropriate health care providers
- ❑ Inappropriate use/overuse of hospital emergency departments
- ❑ Growing need for chronic disease management and reduction of hospital readmissions
- ❑ Increasing costs and inefficiency in the health care system
- ❑ Care management programs, like Grand-Aides, are designed to address these problems

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Presentation Outline

- ❑ Overview of the Grand-Aides model
- ❑ Review of current care management programs in Virginia that are similar to the Grand-Aides model

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The Grand-Aides Model

- ▣ The Grand-Aides model was developed in 2008 by Dr. Arthur Garson, a pediatric cardiologist and Director of the Center for Health Policy at the University of Virginia
- ▣ The Grand-Aides Foundation assists health care organizations in training Grand-Aides and in implementing a Grand-Aide program

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The Grand-Aides Model

Program Goals:

- ▣ Address primary care physician shortages and increase access to appropriate health care providers by training laypersons to be part of a team-based model of care
 - ▣ Frees primary care physicians to practice medicine at the level that only a doctor is trained to provide
 - ▣ Decongests crowded clinics/physician offices of people who could be cared for at home
- ▣ Reduce inappropriate/overuse of hospital emergency departments
- ▣ Provide chronic disease management services in a home setting and reduce hospital readmissions
- ▣ Educate patients on prevention and self-care
- ▣ Improve efficiency and reduce costs in the health care system

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The Grand-Aides Model

- ▣ A Grand-Aide is a Certified Nurse Aide who has received an additional 200 hours of training in the Grand-Aide curriculum to be an extender for a nurse, nurse practitioner or physician
 - ▣ Functions under state CNA certification
- ▣ Grand-Aide areas of care:
 - ▣ Primary care
 - ▣ Transitional or chronic disease care
 - ▣ Maternal-infant care
 - ▣ Palliative care
- ▣ A Grand-Aide typically specializes in one or two areas of care
 - ▣ Prevention and self-care education are a component of all areas

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Grand-Aides Training

- ▣ To become a Grand-Aide, one must:
 - ▣ Have prior medical training
 - ▣ Certified Nurse Assistant (CNA)
 - ▣ Receive an additional 200 hours (6-8 weeks) of training in the Grand-Aides program
 - ▣ Pass the program exam to receive Grand-Aide certification
 - ▣ Certification must be renewed yearly
 - ▣ Grand-Aides certification is not a State certification
- ▣ Training Curriculum:
 - ▣ Specifics of the Grand-Aide program
 - ▣ Basic medical knowledge and protocols
 - ▣ Disease-specific knowledge and protocols
 - ▣ Preceptorship in the clinic, hospital, and/or home setting, depending on the area of interest chosen by the GA

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Grand-Aides Training

- ▣ The program utilizes a "train the trainer" model
 - ▣ The Foundation trains Grand-Aide supervisors
 - ▣ 4 day training on the program and proper protocol
 - ▣ Supervisors are nurse practitioners, physician assistants, or physicians
 - ▣ The supervisors train the Grand-Aides
 - ▣ A web-based teaching and learning platform is under development that will be used to teach supervisors and Grand-Aides
- ▣ While Grand-Aides are under close supervision, liability requires either exemption (associated with some federal clinics) or malpractice coverage similar to a CNA as part of the hospital, clinic or health system's general liability coverage

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Role of the Grand-Aide

- ▣ The Grand-Aide functions within a model of team based care
- ▣ The Grand-Aide is supervised directly by a nurse practitioner, physician's assistant or physician
- ▣ The Grand-Aide is expected to stay within the appropriate scope of practice of a certified nurse aide
 - ▣ The duties of Grand-Aides do not involve diagnosing or providing medical treatment to the patient
 - ▣ All evaluation and treatment is done by the supervisor via telephone or video
 - ▣ Grand-Aides do not suggest or dispense medication

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The Primary Care Grand-Aide

- A primary care Grand-Aide is employed in a physician's practice or clinic to provide efficient, cost-effective care for adults and children
 - Provides a mechanism by which patients who have non-serious primary care problems can stay at home rather than make an unnecessary visit to an emergency department or physician's practice
 - Use of Grand-Aides results in an estimated 15-25% decrease in overall visits to a clinic/practice*
 - Therefore, the Grand-Aide model is appropriate for practices that have a greater volume of patients than they have available appointment slots
 - The Grand-Aide Foundation estimates that each Grand-Aide can help care for 150-300 primary care patients per year

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The Primary Care Grand-Aide

- The Grand-Aide:
 - Meets the patient, or family, in the clinic/physician's office
 - Arranges to make a home visit to get to know the family
 - When not feeling well, a member of the family calls the Grand-Aide, who asks a series of yes/no questions in a protocol for a primary care condition
 - There are protocols for 29 conditions that can be modified to fit the local practice

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Grand-Aides Primary Care Protocols

1. Abdominal pain - Adult
2. Abdominal pain - Child
3. Abrasion
4. Back pain
5. Breathing problems – Adult
6. Breathing problems - Child
7. Breast feeding
8. Chest pain
9. Common cold
10. Constipation
11. Cough
12. Diaper rash
13. Diarrhea – Adult
14. Diarrhea – Child
15. Earache, Drainage
16. Excessive crying, infant
17. Fever – Adult
18. Fever – Child
19. Headache
20. Indigestion
21. Insect bite
22. Joint pain, swelling
23. Nausea – Vomiting – Adult
24. Nausea – Vomiting – Child
25. Rash – Adult
26. Rash – Child
27. Sore throat
28. Spitting up, infant
29. Urinary – frequency, difficulty, painful

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Primary Care Protocol: Common Cold

- The first seven questions in the protocol are designed to determine whether there are urgent symptoms that require immediate attention
 - For example, “Does patient have a breathing emergency (severe wheezing, smothering feeling, inability to speak in full sentences, breathlessness)?”
 - If yes, the Grand-Aide stops and calls the supervising nurse
 - If no, the Grand-Aide continues with the remaining questions, recording the yes/no answers to be given to the supervisor
- The remaining 15-20 questions are used to determine the symptoms that the patient does and does not exhibit
 - For example, “Has the patient had a temperature greater 101 for more than three days?”

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The Primary Care Grand-Aide

- ▣ The Grand-Aide transmits the patient's responses to the supervisor via phone or email and receives instructions from the supervisor to do one of the following:
 - ▣ Send the patient to the emergency department
 - ▣ Make an appointment to see the physician in the clinic
 - ▣ Have the patient stay home (with specific home remedies – e.g. Tylenol)
 - ▣ Schedule a home visit and use a smart phone, tablet, or laptop to put the patient on video with the supervisor – who may then view a physical finding (e.g. rash)

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The Primary Care Grand-Aide

- ▣ The Grand-Aide calls to check on the patient 2, 7, and then 30 days after the initial call
- ▣ Grand-Aides also make home visits for primary prevention and efficiency
 - ▣ Early recognition and management of primary care conditions
 - ▣ Scheduling of preventive visits and tests
 - ▣ Appointment reminders to reduce “no-shows”
 - ▣ Adherence to medical regimen

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Grand-Aides in the Clinic

- At the choice of the physician, the Grand-Aide may work entirely in the clinic/office setting and not make home visits
 - ▣ The Grand-Aide may receive patient phone calls and/or see drop-in patients in the clinic and give the patient's responses to the protocol questions to the supervisor as a way of improving efficiency

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The Transition/Chronic Care Grand-Aide

- Introduction of Grand-Aide to the patient
 - ▣ For patients transitioning from hospital to home, the Grand-Aide meets with the patient 1-2 days prior to discharge and then accompanies the patient home from the hospital
 - ▣ For patients with chronic disease who are not hospitalized, the Grand-Aide will meet with the patient in his/her clinic/physician's office

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The Transition/Chronic Care Grand-Aide

- At home, the Grand-Aide assists the patient in developing regimens for medication adherence as well as other parts of the treatment plan
 - e.g., daily weights, diet (Grand-Aides food labels), important signs and symptoms to advise the physician, and when to return for the next visit
 - Medication reconciliation
- Home visits daily for the first week and then as needed
 - May continue to see the patient and change level of intensity as patient's illness (or adherence) changes

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Grand-Aide Food Labels



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The Transition/Chronic Care Grand-Aide

- ▣ Grand-Aides have protocols specific to the chronic disease
 - ▣ Diabetes, heart failure, heart disease, pneumonia, chronic obstructive pulmonary disease
 - ▣ Telemedicine is used to communicate with the supervisor regarding patient signs and symptoms
- ▣ For those with multiple chronic diseases, and especially the frail elderly, patient-specific protocols are developed
- ▣ May also include assessment of mental health of chronic patients
- ▣ As in the primary care area, one nurse can supervise up to six Grand-Aides

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Transition/Chronic Care Protocol: Congestive Heart Failure

- ▣ Like the primary care protocol, the first seven questions are designed to determine whether there are urgent symptoms that require immediate attention
 - ▣ For example, "Does patient have a smothering feeling, cannot speak in full sentences, breathlessness?"
 - ▣ If yes, the Grand-Aide stops and calls the supervising nurse
 - ▣ If no, the Grand-Aide continues with the remaining questions, recording the yes/no answers to be given to the supervisor
- ▣ The remaining 15-20 questions are used to determine the symptoms that the patient does and does not exhibit
 - ▣ For example, "Is the patient sweating more than usual?"

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Estimate of Transition/Chronic Care Grand-Aide Visits

WEEK	VISITS	HR / VISIT	HOURS
1	5	2.0	10.0
2	3	1.5	4.5
3	2	1.25	2.5
4	1	1.25	1.25
TOTAL	11		18.25

Grand-Aide for 1 month

- 174 hours / 18.25 hours per patient = 10 patients/Grand-Aide

Grand-Aide for 1 year

- 2080 hours / 33.25 hours per patient = 63 patients/Grand-Aide

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Grand-Aides Payment Structure

- ▣ The median wage for a Grand-Aide is \$15 per call/visit
- ▣ The primary care Grand-Aide likely would be employed by the clinic/physician and paid an hourly wage or salary, based on an estimation of the number of patient calls or visits made by the Grand-Aide per day
 - ▣ Cost-effective only in clinics/practices that have a higher volume of patients than they have appointment slots available
- ▣ The transition/chronic care Grand-Aide could be employed by a hospital or MCO/health plan to reduce readmission rates

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Grand-Aides Payment Structure

- ▣ In a fee-for-service system, the clinic/physician's office could be reimbursed for the nurse supervisor's work, rather than billing for the Grand-Aide directly
 - ▣ Virginia Code currently does not allow practitioners to bill for telemedicine visits that occur in a patient's home
 - ▣ Therefore, can use CPT codes 98966, 98967, and 98968 to bill for the nurse supervisor's services
 - ▣ These are CPT codes for "reporting of clinical telephone calls managed by 'qualified non-physician health care professionals,' (ie. registered nurses)"
 - ▣ Home visiting may be billed at a slightly higher rate using codes 98967 and 98968
- ▣ Under a capitated system, the Grand-Aide would be paid as part of the per member, per month (PMPM) rate

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Grand-Aides at the University of Virginia

- ▣ A transition/chronic care Grand-Aides program began January, 2013 for congestive heart failure patients
 - ▣ 2 FTE Grand-Aides
 - ▣ After 9 months, no patient has been readmitted for congestive heart failure and 10.3% were readmitted for other reasons
 - ▣ A 58% reduction in "all cause" readmissions (based on the CMS baseline readmission rate of 24.3% for congestive heart failure)
- ▣ Vanderbilt University has submitted a proposal for a CMMI Phase II Innovation Grant for the use of Grand-Aides in 15 institutions in 15 states, including UVA, to reduce 90-day readmissions in 4 cardiac conditions

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Grand-Aides Program Data*

- Research was conducted at 2 pediatric Medicaid settings
 - Legacy Community Health Services (FQHC) in Houston, TX
 - Rockingham Memorial Hospital emergency department and the Harrisonburg Community Health Center in Harrisonburg, VA
- In the Houston clinic, Grand-Aides conducted the protocol survey with 457 walk-in patients (97% of clients); and 289 (62%) were judged by the supervisory nurse and physician to not need a clinic visit and could have been cared for at home
 - Top 5 reasons for visit: rash, fever, congestion, earache, or cough
 - Estimated savings: \$39-\$183 per clinic visit avoided
 - Grand-Aide: \$17 per call/visit
 - FQHC payment to clinic: \$56-\$200 per visit

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Grand-Aide Expenses per Year: Houston, TX Site

Expense	Cost (\$)	Source of Funds
Training	\$2,500	Houston Community College
Grand-Aid Salary + benefits	\$25,000	Legacy CHC
Supervisor Salary + benefits	\$8,333	Legacy CHC
Technology	\$1,070	Legacy CHC
Transportation	\$3,600	Legacy CHC
Total	\$40,503	

Source: Article by Arthur Garson et al. in Health Affairs. 2012. 31(5):1016-1021. Authors' analysis. a. \$100,000 salary and fringe benefits for full-time supervisor. To supervise six Grand-Aides requires 50 percent time; $\$100,000/6 \times 0.5 = \$8,333$. b. Based on prices in Houston, netbook computer \$600, monthly wireless service \$840 (\$70 per month for 12 months), technology in clinic \$300. Total: \$1,740. c. Based on standard State of Texas reimbursement for mileage, transportation allowance \$0.50 per mile; 30 miles per day; 240 days per year.

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Grand-Aides Program Data

- In Virginia, researchers conducted a theoretical test of the Grand-Aides model by analyzing the records of 402 Harrisonburg Community Health Center Medicaid patients who were under 19 years of age and were seen by the hospital emergency department, but were not admitted to the hospital
 - The 402 patients made 779 visits over a 15-month period
 - The primary diagnoses for 74% of the visits was covered by one of the Grand-Aides protocols
 - In these cases, the visit to the emergency department was judged not to have been necessary
 - Top 5 reasons for ED visit: earache, congestion, cough, rash, or pharyngitis
 - Each ED visit cost \$175, thus it was estimated that if a Grand-Aide program had been in place, it could have resulted in a savings of \$158 per visit (based on the cost of \$17 for a Grand-Aide/supervisor consult)

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Review of Current Care Management Programs in Virginia

- For the study, all Medicaid health plans completed an emailed questionnaire about the components of their care management program; and interviews were conducted with Optima, VA Premier, and Virginia Commonwealth University Health System's coordinated care program (VCC)
- In addition, interviews were conducted with the
 - Virginia Department of Medical Assistance Services
 - Department of Health Professions
 - Virginia Department of Aging and Rehabilitative Services
 - Virginia Hospital and Healthcare Association
 - Virginia Association of Health Plans
 - University of Virginia's Office of Telemedicine
 - CHIP of Virginia

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Survey of Virginia Medicaid Health Plans' Care Management Programs

	Anthem	Coventry Cares	INOVA	Majesta Care	Optima	VA Premier
Issues Addressed						
Unneeded ED Visits	Yes	Yes	Yes	Yes	Yes	Yes
Unneeded Clinic Visits	Yes	Yes	No	No	No	Yes
Hospital Readmissions	Yes	Yes	Yes	Yes	Yes	Yes
Chronic Disease	Yes	Yes	Yes	Yes	Yes	Yes
Maternal / Infant Health	Yes	Yes	Yes	Yes	Yes	Yes
Services Provided						
Nurse by Phone	Yes	Yes	Yes	Yes	Yes	Yes
Home Visiting	All*	NP, RN, Outreach Worker	Outreach Worker, RN	No	Outreach Worker	Outreach Worker, RN
Telemedicine	Considering	Developing	No	Pilot	Yes	Yes

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Other Notable Care Management Programs in Virginia

- Virginia Care Coordination Center (C3)
 - University of Virginia's telehealth system of care that includes remote patient monitoring and home visits
- CHIP of Virginia
 - A statewide network of local programs that serves high-risk, low income children under 6 years of age in Virginia and/or pregnant women
 - Home visiting and community-based services
- Virginia Partners for Care Transitions
 - A coalition of groups in the field of health care created to "collaborate, communicate and coordinate education, initiatives and strategies to promote optimal healthcare transitions and ongoing community support for every Virginian"*
 - Sponsors: Virginia Health Quality Center, Virginia Hospital and Healthcare Association, and the Virginia Department for Aging and Rehabilitative Services

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Other Notable Care Management Programs in Virginia

- Virginia Commonwealth University Health Care System's Care Coordination Program (VCC)
 - Established in 2000 to "assist patients to obtain services in the right place, at the right time for the right level of care" by addressing:
 - The need for expanded primary care capacity for uninsured individuals seeking care at VCUHS
 - Emergency department use for primary care treatable conditions
 - Chronic disease management
 - Since 2000, the program has served over 80,000 unique patients
 - Approximately 27,000 were enrolled in FY2012
 - Launched the VCUHS Complex Care program in November of 2011
 - Supports high cost/high utilization patients with multiple chronic conditions
 - VA Premier serves as third party administrator

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Other Notable Care Management Programs in Virginia

VCUHS Care Coordination Program, Cont'd

- The program includes placement of outreach workers in the VCUHS emergency department
 - Provide assistance connecting the patient to a medical home, and provide referrals to social services agencies to address issues that may impact health outcomes such as housing and transportation needs
- The program has demonstrated significant reductions in rates of unnecessary health care utilization and VCUHS costs for enrollees who chose to remain in the program*
 - Cost of care was reduced by 50% for patients enrolled in the program for three years

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Conclusion

- All of Virginia's Medicaid health plans have care management programs to address hospital readmissions, misuse of emergency departments, and/or the need for chronic disease management
 - Many of these programs are similar to the Grand-Aides model, sharing the same goals as the Grand-Aides model but differing in design to varying degrees
 - For example, many utilize registered nurses for their home visiting component instead of certified nurse aides and none triage care by a CNA administering a protocol questionnaire
 - In 2010, Dr. Garson presented the Grand-Aides model to representatives of the health plans during a DMAS meeting
 - Optima was interested in incorporating the model into their program but ultimately determined that it was not financially viable
 - They worked to implement a pilot of the Grand-Aides model in a Norfolk health clinic (FQHC) with funding from Sentara, but determined that the clinic lacked a sufficient volume of patients to cover the costs of a Grand-Aide position without the clinic losing revenue
 - The other plans chose not to move forward with the Grand-Aides model at that time

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Conclusion

- The primary care component of the Grand-Aides model is designed to address the need for increased capacity in congested clinics/physician offices. As such, success of the model in the primary care setting is in large part based on the degree to which clinics/practices are experiencing patient demand that is greater than the available appointment slots.
- Preliminary research suggests that the Grand-Aides model can play a role in reducing the number of hospital readmissions, providing care management for persons with chronic diseases, and reducing health care costs.
 - However, to make full use of the Grand-Aides model, the Code of Virginia would need to be amended to allow for provider reimbursement for home-based telemedicine.

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