

Virtual Integrated Practice Model



Virtual Integrated Practice (VIP) team care meeting at Rush Medical Center, Chicago, IL. In an early morning meeting via teleconference, members of the primary care team across Chicago discuss patient care issues. Patients in a Virtual Integrated Practice demonstrated a greater understanding of their medications and how to manage their disease.



Implementing Team Care Across Practices and Virtually

AS AN OUTSTANDING EDUCATIONAL SITE within the Foundation's Geriatric Interdisciplinary Team Training program, Rush University Medical Center successfully integrated concepts of interdisciplinary team training into the curricula of the disciplines involved in geriatric care, including medicine, nursing, and social work. In 2000, the Foundation awarded Rush a five-year grant of \$1,833,284 to extend its work on interdisciplinary team care into the realm of clinical practice with the Virtual Integrated Practice team care model. The project is led by Steven K. Rothschild, MD, Associate Professor of Family Medicine and Director of the Section of Community Medicine, Department of Preventive Medicine, Rush University Medical Center, Chicago, Illinois.



Steven K. Rothschild, MD
Principal Investigator,
Virtual Integrated Practice
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In the United States, the majority of primary care offices are solo fee-for-service practices of four or fewer physicians.²⁵ Unlike larger practices and clinics, these small practices rarely have the capability to offer the kind of multidisciplinary team care that has been shown to improve outcomes for older adult patients with complex care needs. Ideally, interdisciplinary teams include social workers, nurse practitioners, pharmacists, physical and occupational therapists, clinical nutritionists, and others to provide critically needed and well coordinated patient care services. Small practices often lack the financial resources and space to support and accommodate these additional clinicians. Practices in rural settings have particular difficulty offering interdisciplinary team care.

“We developed a team care model that brings primary care physicians together with providers in other disciplines at other sites to a virtual table to interact around the care of patients with chronic diseases and disability,” says Dr. Rothschild, Principal Investigator. The model, called Virtual Integrated Practice (VIP), utilizes redesign of office systems, structured communications tools, and relationship building to coordinate patient care among team members who do not share office facilities.

The VIP model was developed by an interdisciplinary team of researchers and clinicians. David Lindeman, MSW, PhD, an internationally recognized gerontologist, was Co-Principal Investigator. Dr. Lindeman, then Director of the Mather Institute on Aging, Evanston, IL, brought insight from two decades of work on the care of persons with Alzheimer's disease. Lois A. Halsted, PhD, RN,

25- Wassenaar JD, Thran SL. Physician socioeconomic statistics. Chicago, AMA Press, Center for Health Policy Research. 2003.

then the Associate Dean of the Rush College of Nursing and currently Vice-Provost and Vice President for University Affairs at Rush, provided nursing input into the project.

Drs. Lindeman and Halstead continue to work on the VIP team, along with a dietician (Kathy Keim, PhD, RD), a social worker/gerontologist (Robyn Golden, LCSW), and two additional nurse-researchers (Ann Minnick, PhD, RN and Cathy Catrambone PhD, RN). A gerontologist, Stan Lapidos, has served as Project Manager for VIP and Rush's prior GITT initiative.

Rush was an outstanding educational site in the Hartford Foundation's previous Geriatric Interdisciplinary Team Training (GITT) initiative. It has developed its capacity to train future health professionals to work together and deliver care to older people using an interdisciplinary approach.

Virtual Integrated Practice: The Community Response

Rather than hiring additional staff, the VIP concept calls for primary care physicians to identify practitioners in nearby health care settings or community organizations and develop working relationships among them. Teams are built among providers in the community who are seeing the same patients and addressing the same issues around aging and chronic disease management, but who don't otherwise interact with one another. Communication among these team members occurs primarily through e-mail, voicemail, and Internet-based medical informatics systems to facilitate efficient teamwork.

The VIP process begins with convening and training the virtual team members. The team members discuss clinical issues that they can work on together. For example, the physician may identify diabetes education as an area that he or she lacks the resources to comprehensively provide.

The pharmacist may offer to give medication instruction and a dietician may offer to provide nutrition education. The team also develops population-based goals for patients with target conditions. For example, a team may decide to increase the number of diabetic patients with controlled blood pressure or reduce the number of patients who are nonadherent with their medication.

The team can also utilize a toolkit of activities that were devised by the Rush team to facilitate the team process. The toolkits provide guidance on four improvement strategies: planned communications, process

"Each member of our research team brings stellar academic credentials and practical bedside experience in their respective clinical disciplines. The result is a robust care model that is informed by theory and clinical practice."

*Steven K. Rothschild, MD
Principal Investigator,
Virtual Integrated Practice*



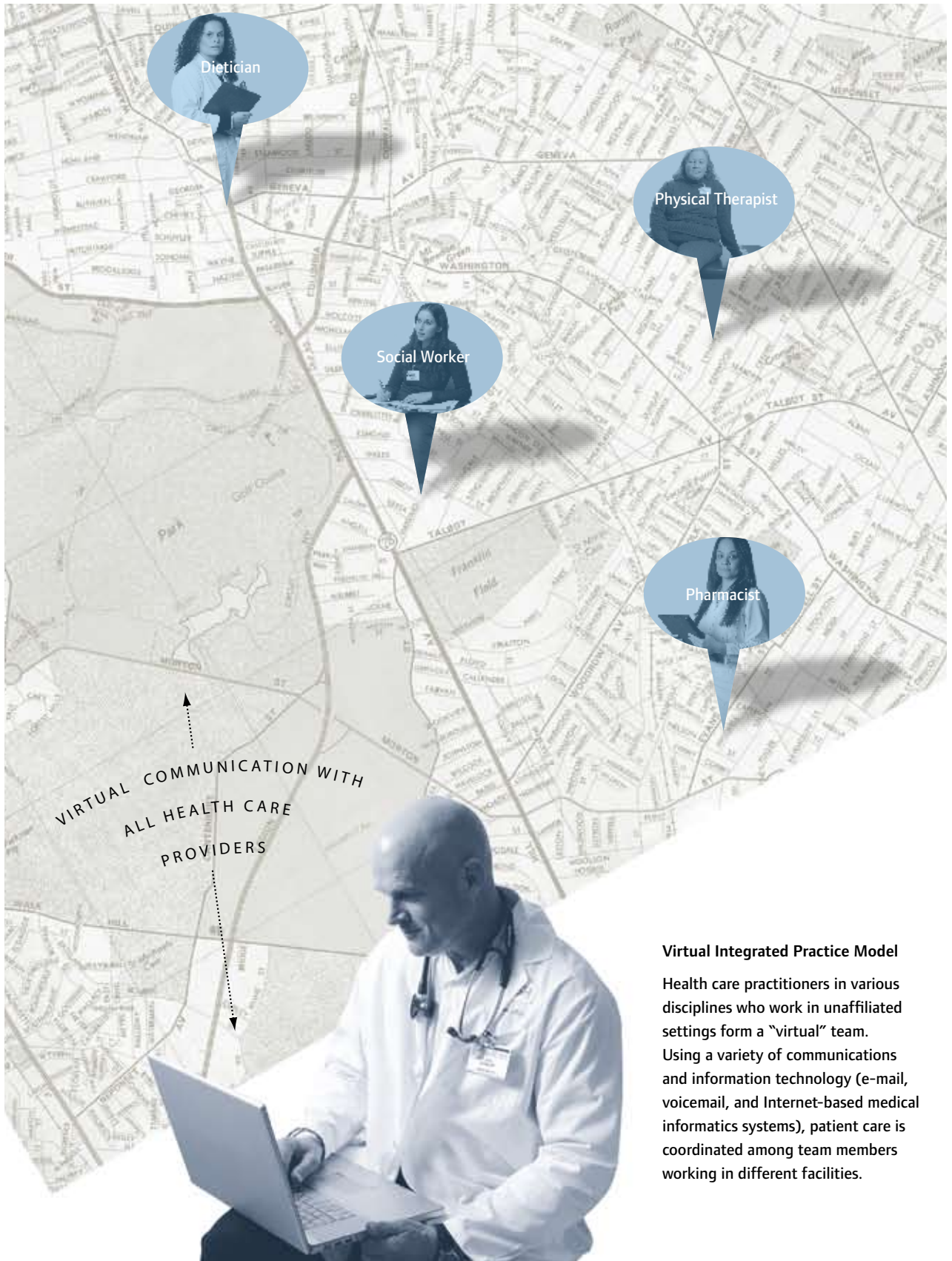
Jack Olsen, MD, examines patient Carmen ZuZula in SeniorCare at Rush University Medical Center. Technology allows Dr. Olsen to communicate his findings with members of the health care team.

standardization, patient self-management, and group activities. Planned communication involves team members being explicit with each other in advance about what information they want and how they want to receive it. Process standardization means that the team determines each provider's role and responsibility in delivering care that adheres to evidence-based practice guidelines. Patients themselves are integral members of the team and must be armed with knowledge about their illness and empowered to alter their own behavior to improve outcomes. Group activities involve bringing together small groups of patients with a common diagnosis or health problem to receive direct care or education at the same time.

While the members of the virtual team—nutritionist, social worker, pharmacist, physician, and others—are not employed in the same location, for the patient the experience is one of coordinated team care.

Measuring the Success of Virtual Integrated Practice

Having implemented the VIP model, Dr. Rothschild and the team at Rush sought to measure how well primary care practices that use VIP can modify their approach to chronic disease care. They collected data



VIRTUAL COMMUNICATION WITH ALL HEALTH CARE PROVIDERS

Virtual Integrated Practice Model

Health care practitioners in various disciplines who work in unaffiliated settings form a “virtual” team. Using a variety of communications and information technology (e-mail, voicemail, and Internet-based medical informatics systems), patient care is coordinated among team members working in different facilities.



Geriatric Interdisciplinary Teams in Practice **Virtual Integrated Practice Model**

Steven K. Rothschild, MD, Principal Investigator, Rush University

<http://www.rush.edu/professionals/vip/>

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When the health care team communicates well with each other and with the patient, together better health outcomes are achieved. Primary care physician Dr. Rothschild reviews medications with the Carreto family.

from four practices using the VIP model and compared them to practices engaged in usual care. The study focused on care of patients with type 2 diabetes, chronic obstructive pulmonary disease, or urinary incontinence. In the practices using the VIP model, patients reported more satisfaction with their care. Patients also had greater understanding about their medications and how to manage their disease. More patients in the VIP practices reported that they knew how to get help if they had a problem.

Among patients with poor physical functioning (about 13 percent of all patients), those who were not treated in the VIP practices were far more likely to use the emergency room; their usage of the ER was twice that of those in the VIP practices. Reducing use of the emergency room has huge potential to reduce health care costs.

The VIP approach targets a reduction in crisis intervention and acute care management for frail elders. Moreover, as each member of the team already bills for the care they provide, the Virtual Integrated Practice is cost-neutral for providers while supporting improved health outcomes.

Building Community Capacity

Dr. Rothschild and the group at Rush are using funds from the dissemination of GIT-P grant to develop materials to aid in the dissemination of the model to primary care practices. They have developed a VIP handbook and a Web site (www.rush.edu/professionals/vip/). They are also creating a train the trainer program. While discussions are underway with several health organizations and health insurance plans about adoption of the model, some organizations have already incorporated aspects of the model in their own team care projects.

As he began developing a pilot program in San Diego County for a coordinated, low-cost team approach to chronic illness care, Mark Meiners, PhD, George Mason University professor of health policy, learned of the VIP model and contacted Dr. Rothschild. When he first wrote the grant for the program, called “Team San Diego,” Dr. Meiners used the term “virtual teaming,” not knowing at the time that the idea of virtual teams was already being applied to the care of chronically ill patients.



(Above) Primary care physician Dr. Rothschild referring his patients to dietitian Kristin A. R. Gustashaw virtually.

Dr. Rothschild shared the VIP materials with Dr. Meiners, which he is now using to help develop the training, delivery, and evaluation methods for the Team San Diego project. “Virtual team care introduces formality to things that are happening but in a haphazard way,” says Dr. Meiners. “By formalizing it the chances of improving care are increased significantly.”

Dr. Rothschild and the group at Rush are also overseeing curriculum development as part of a broad initiative to expand the availability of Programs of All-Inclusive Care for the Elderly (PACE) across the United States. PACE, which has been supported

“The word ‘virtual’ might be misleading, because it isn’t virtual to the patient. We see the patient in an office, just not the same office as the physician. What is virtual is the well coordinated communication systems in place among the various care providers.”

*Kristin A. R. Gustashaw, MS, RD, CSG
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VIP: A Seamless System of Resources



Maria Guadalupe (Lupe) Carreto and her husband Fernando, who both have diabetes and hypertension, were advised over ten years ago by their doctor to exercise as part of a

comprehensive health plan. Lupe, who was working as a volunteer in the clinic of her physician at the time, realized that she and her husband were not the only seniors who needed a regular exercise program. Working with another volunteer and her doctor they set up a two day a week exercise program at a field house in a local park, originally for five to ten older adult clinic patients. Eventually, the director of the park noticed the group and incorporated them into a group called Seniors of Dvorak Park. The Chicago Park District now runs the exercise program with an exercise instructor sent by the Department on Aging, and the group has grown to over 20 people aged 70 to 85.

Without realizing it, Lupe, whose physician is Dr. Steven Rothschild, created an important community resource that has become part of Virtual Integrated Practice (VIP). “The theme of VIP is community partnership, using resources outside of the formal health system,” says Dr. Rothschild, Principal Investigator of the VIP team care model.

Fernando and Lupe, now in their 70s, have been patients of Dr. Rothschild for over 20 years. As they developed chronic health conditions, their need for services beyond what the doctor is capable of providing grew. In addition to advising increased exercise, Dr. Rothschild also referred them to a community-based dietician. The dietician was particularly helpful to Lupe, teaching her what foods the couple should be eating and what to avoid. Lupe and Fernando also participated in group visits with other diabetes patients and were encouraged in the self-management of their health conditions.

The Carretos continue to get the word out about the exercise program to seniors in their community. For seniors with diabetes and other infirmities, this type of program is invaluable for maintaining and improving physical functioning.

“VIP is about building a seamless system of resources that allows us to get patients the services that we can’t provide in the office,” says Dr. Rothschild. “It’s about building an extension into the community or into other providers and putting them on a team.”



(Above) Lupe and Fernando Carreto, both in their 70s, exercise twice a week as part of a comprehensive health plan.

(Below) The Carretos attend exercise class in the Dvorak Park Field House located on the south side of Chicago.

by the Foundation since its earliest days, makes it possible for older adults to avoid nursing home placement and receive coordinated medical and social services, enabling them to age in their communities. It is a comprehensive, integrated health care plus financing model. The VIP team will build an on-line curriculum for Rural PACE. The National PACE Association has expressed interest in using the curriculum for urban settings as well.

Other organizations that have consulted with the VIP team include Blue Cross of Illinois, Chicago Department on Aging (CDC Hispanic Elders Initiative), Chicago Department of Public Health, and the Illinois Department on Aging.

Validation from the Hartford effort was very important for co-investigators Robyn Golden and Stan Lapidos in their successful application to the Retirement Research Foundation. Awarded \$203,234 over three years in 2006, project BRIGHTEN expands on the virtual team model to improve the identification and treatment of depression in primary care settings. Equally important has been the role of the Foundation in opening doors. The Hartford “imprimatur” is recognized for its high standards in quality care of older adults.



(Above) Social worker, Robyn L. Golden, LCSW, with patient.



(Below) Catherine Catrambone, PhD, RN, explaining peak flow monitoring for asthma management.

As the team at Rush talks to physicians, hospitals, and professional societies, the John A. Hartford Foundation has been an important door opener.

“Virtual team care introduces formality to things that are happening but in a haphazard and unsystematic way. By formalizing the team, chances of improving care are increased significantly.”

*Mark Meiners, PhD
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