

**The Pennsylvania State University
Center for Health Care and Policy Research
2014 Annual Report**

Dr. Dennis Scanlon, Director

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Table of Contents

Descriptive Statement of CHCPR's Activities

Overview	Page 1
Mission	
Promoting research and scholarship to improve health services	
Research strengths	
Faculty, Staff and Students.....	Page 2
Center staff	
CHCPR faculty affiliates	
Student research training	
Staffing changes	
CHCPR Research.....	Page 3
Proposals and awards	
Publications and presentations	
Research seminars sponsored or co-sponsored by CHCPR	
Collaborations with Other Penn State Units	Page 5
Department of Health Policy and Administration	
Regional Medical Campus	
Department of Public Health Sciences	
Penn State Employment Benefits	
Social Science Research Institute	
Penn State Cancer Institute	
Center for Integrated Healthcare Delivery Systems	
CTSI Community Engagement Core	

Self-Evaluation of CHCPR Activities

2014 Highlights	Page 7
Transition of leadership	
Website	
'Constant Contact' Email Communications	
Building Collaboration Across Penn State and Externally	
Community Involvement	
Difficulties Encountered In Past Year	
Short or Long Term Issues	

Appendix

Appendix A – CHCPR Research Appointments	Page 11
Appendix B – CHCPR Faculty Affiliates.....	Page 13
Appendix C – Proposals Submitted	Page 17
Appendix D – Current Awards	Page 21
Appendix E – Facilitated Grants Awarded.....	Page 24
Appendix F – Publications with CHCPR Administered Grants	Page 25
Appendix G – Presentations with CHCPR Administered Grants	Page 27
Appendix H – Health Services Research Colloquium	Page 28

Overview

Mission

CHCPR's mission is to create and disseminate new scientific knowledge that will help private and public decision-makers to develop cost effective services and programs that improve people's health. The Center helps researchers interested in all aspects of health services and health care improvement find funding, develop quality research designs, collect and analyze data, and disseminate findings to the right audiences.

In carrying out its mission, CHCPR:

- Collaborates across units, campuses, and communities to promote research and scholarship
- Supports faculty in submitting research proposals and executing funded projects
- Furthers Penn State's educational mission by facilitating research experiences for students
- Creates and disseminates new scientific knowledge to help decision-makers develop cost-effective services and programs that improve people's health

Promoting research and scholarship to improve health and health services

With a network of faculty and organizational relationships that reach across departments, colleges, campuses, and communities, CHCPR is well positioned to bring together research teams with the broad range of skills and expertise to design, implement, motivate, and evaluate health systems improvements. Its partners in this effort include the Department of Health Policy and Administration (HPA) and other units in the College of Health and Human Development; the School of Nursing; the Social Science Research Institute; the College of Medicine and Cancer Institute at Hershey. External partners include; Geisinger Health System, The Pittsburgh Regional Healthcare Initiative and other private and public sector purchasers and providers of health care. With significant numbers of affiliated faculty on the main campus in University Park and at the College of Medicine in Hershey, the Center is a pivotal link in efforts to expand and strengthen health care research at Penn State by promoting collaborations across the two campuses.

Research strengths

The Center's research portfolio is funded by such major grant-makers as the Robert Wood Johnson Foundation, the National Institutes of Health, and The Commonwealth Fund. The expertise reflected in this research is drawn from a variety of disciplines and backgrounds, including management sciences, organizational theory, economics, sociology, public health sciences, clinical practice, gerontology, epidemiology, law, and communications.

The faculty members associated with the Center are particularly well known for leadership in research on:

- **Developing and Testing Strategies to Improve Quality and Value.** Through our evaluation of the Robert Wood Johnson Foundation's Aligning Forces for Quality project, we are

contributing to community lead health improvement initiatives. This work examines the implementation and value of specific interventions such as public reporting, assisting physicians and hospitals in improving the quality of both ambulatory and inpatient care, promote the role of nurses in quality improvement efforts, improve the management of chronic illnesses, and increase consumer engagement. We are helping to evaluate new technologies or management strategies implemented by health care organizations and their impact on staffing levels, staff satisfaction, and the quality of patient care.

- **Health Disparities.** Identifying Effective Strategies to Reduce Health Disparities -- A significant body of research has identified health disparities along a variety of dimensions, including by race/ethnicity, by language, or by socioeconomic status or location residence. While we continue to measure these disparities our work is also actively engaged in identifying effective models for reducing health disparities as a way to improve the health of populations.
- **Public and Private Insurance and the Uninsured.** Our research is influencing the design of both public and private health insurance plans in an era of significant change due to the Affordable Care Act (ACA). We are informing efforts to implement coverage reforms. We are contributing to the improvement of public programs by studying questions of benefit design, reimbursement, and eligibility and by evaluating the impact of legislative changes.
- **Aging and Long-Term Care.** Our studies of the health care of older Americans address a wide range of topics, from questions of state and federal policy to managerial, technological, and clinical innovations in patient care as the baby boom population ages.

Faculty, Staff and Students

Center staff

Dr. Dennis Scanlon took over leadership the Center on July 1, 2014, following the retirement of previous director Dr. Pamela Farley Short. Dr. Scanlon's faculty appointment as a tenured full professor is split between the Department of Health Policy and Administration (70%) and the Center for Health Care and Policy Research (30%).

Twelve full-time employees held appointments in CHCPR at the end of 2014 (see Appendix A – CHCPR Research Appointments 2014). Six of these employees have advanced degrees (Banks, Bodenschatz, Leitzell, Lunders, Shi, and Shaw). In addition to these six employees, two administrative support assistants (Houser, Plante), four research technologists (Aseyev, Farley, Johnson, Rechowicz), and a proposal and grant administrator (Yeager) supported research teams on proposals and externally funded projects and assisted with the Center's core activities.

CHCPR faculty affiliates

Our list of faculty affiliates (See Appendix B) ranges across the University's many colleges and campuses including, Health and Human Development, Liberal Arts, Medicine, Education, Agricultural Sciences, Earth and Mineral Sciences, Business, Nursing, Information Sciences and

Technology and Eberly College of Science. Because health services research often benefits from partnerships with external organizations, in 2014 we broadened our list of affiliates to include those outside of the University. Our external contacts include Geisinger, the Pittsburgh Regional Healthcare Initiative and other payer, provider and social service organizations from across the Commonwealth and the United States.

Student research training

Providing students with research training opportunities is an important function of CHCPR. Six graduate students from the Department of Health Policy and Administration were supported as graduate assistants on CHCPR-administered grants during 2014. In addition, students from other HHD departments and other colleges participated in the Colloquium workshops sponsored by CHCPR, which featured five speakers during the fall 2014 semester. In addition, as many as eight undergraduate students were supported as wage/payroll employees on CHCPR-administered grants.

Staffing changes

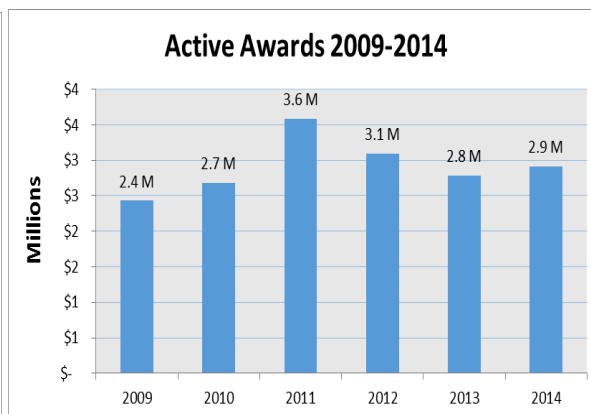
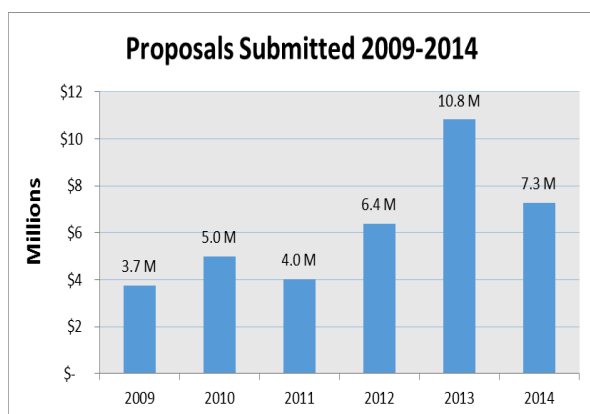
Darya Aseyev continued in a part-time, temporary wage/payroll research position following her return from maternity leave but ultimately resigned in the middle of 2014.

CHCPR Research

Proposals and awards

Eighteen proposals, with a total dollar value of \$7.3 million, were submitted through CHCPR in 2014. Eight of the proposals involved significant collaborations extending outside Penn State (with Boston College, Presbyterian Senior Living, Medical University of South Carolina, Virginia Commonwealth University, RAND Corporation, University of Capetown, George Washington University, and the University of Ohio). (See Appendix C) In addition there were four other grants in which CHCPR played a significant role. These grants total \$6.3 million and are shown in appendix D.

CHCPR received four new research awards in 2014, with a total value of \$357,211. (See Appendix D.) That figure does not include \$8.5 million in ongoing work on several multi-year grants from foundations that were awarded in previous years, most notably \$7.5 million for Aligning Forces for Quality received in previous years (also listed in Appendix D under “Other multi-year awards ongoing in 2013”). In addition, we have received notice that awards were forthcoming on five proposals submitted in 2014 totaling \$1,689,788. The graphs below show trends in proposals and awards when the awards are prorated for multi-year funded grants. Prorating foundation awards is more comparable to the way that NIH grants for multi-year projects are awarded and tracked.



*Multi-year foundation awards are prorated over the life of the grant.
 Proposals submitted do not include \$6.3 million in proposals facilitated by CHCPR.
 Active awards do not include \$349,916 in facilitated grants awarded in 2014.

Publications and presentations

Fourteen articles based on grants administered or facilitated by CHCPR were published or in-press in 2014. Twenty presentations based on CHCPR administered or facilitated grants were given. (See Appendices F and G.)

Research seminars sponsored or co-sponsored by CHCPR

CHCPR continued to co-sponsor the Health Services Research Colloquium with the HPA Department. The CHCPR Director plays a major role in recruiting and hosting speakers for this forum. During the Spring and Fall semesters of 2014, a total of eleven presentations were given in the colloquium, ten by visitors from outside Penn State. (See Appendix H)

In 2014 CHCPR took over leadership of coordinating all aspects the colloquium, including scheduling speakers, coordinating travel and itineraries and setting up video conferencing capabilities. This was a responsibility previously held by HPA. One goal we had was to improve the communication tool for announcing the schedule of presentations. We created a more visually appealing email message, including banners and photographs in an effort to catch the attention of our affiliates and grow our attendance. We also improved the webinar technology by purchasing extra microphones and speakers for our conference telephone which is used to transmit the presentation audio.

In late 2014, a major effort in the planning following year's colloquium was spent to make connections with the College of Nursing. Two special presentations were planned around nursing related research. Dr. Joanne Spetz from the University of California-San Francisco and Dr. Peter Buerhaus from Vanderbilt University. Both are experts on nursing and to promote networking and foster collaboration with the School of Nursing, CHPR coordinated a special itinerary for each speaker to meet with a larger group of nursing faculty and students. To encourage attendance from the School of Nursing, CHCPR organized Dr. Spetz's talk to be held in the Living Center and provided lunch for all attendees.

Over the course of the semester, faculty and students from ten different departments/units and four colleges were represented in the colloquium audience (Health Policy and Administration;

Center for Health Care and Policy Research; Public Health Sciences; Sociology; Demography; Kinesiology; Nursing; Communication Arts and Sciences; Industrial and Manufacturing Engineering; Labor and Employee Relations). Plans for the fall semester 2015 include selecting speakers in conjunction with Penn State's Cancer Institute in order to generate research collaboration.

Collaborations with other Penn State Units

Department of Health Policy and Administration

CHCPR has close ties to the HPA Department, the academic unit at University Park that is most focused on health systems improvement. The CHCPR Director is an HPA faculty member; and the two organizations jointly support a number of activities, including the Health Services Research Colloquium and Penn State's involvement with AcademyHealth (the national professional society for health services researchers). HPA and CHCPR collaborated in discussions with Dr. Raymond Hohl, the Cancer Institute Director, to recruit Joel Segel as an Assistant Professor in HPA in a co-funded position with the Cancer Institute.

Regional Medical Campus

Regional Medical Campus at Penn State - The Hershey Medical Center and Penn State University are collaborating to build a regional medical campus at University Park. CHCPR is actively engaged in these discussions in several ways. First, there have been discussions with the leadership of the new family medicine residency program about ways to involve medical residents in applied quality improvement research projects focused on measuring the impact of effective techniques for managing patient populations. Dr. Scanlon has also been in discussions with Richard E Smith, who heads the Engaged Scholarship effort designed to involve undergraduates in a meaningful off campus learning activity before graduation, about ways to involve undergraduate students in CHCPR projects. Second, Dr. Terry Wolpaw, Vice Dean for Educational Affairs at the Penn State Hershey College of Medicine has asked Dr. Scanlon to serve on an advisory committee for a new four year medical school curriculum to be located at University Park. This new curriculum is supported, in part, through a five year grant from the American Medical Association to "flip the traditional medical school model" by teaching students differently than the traditional model. Dr. Wolpaw has asked Dr. Scanlon and CHCPR to advise and to potentially develop content in areas related to population health management, the business of health care and the use of 'big data' as well as an understanding of how federal and state policy influence the environment in which medicine is practiced.

Department of Public Health Sciences

The Department of Public Health Sciences in the College of Medicine is the Center's main point of contact with the medical center. PHS is comprised of four academic divisions: epidemiology, biostatistics, health services and behavioral research, and nutrition and activity promotion. Many faculty members in the health services research division are affiliated with CHCPR. Dr. Scanlon has been in contact with several PHS faculty members and a proposal has been submitted in 2015

involving Doug Leslie and several others affiliated with the Center for Applied Studies in Health Economics (CASHE).

Penn State Employment Benefits

Dr. Scanlon and other CHCPR faculty affiliates including Dr. Dennis Shea and Dr. Keith Crocker have been involved in advising the university administration on matters related to providing health benefits to employees, retirees and other beneficiaries. As part of these deliberations CHCPR is planning to provide analytic support to the university by assisting with the analysis of data to be assembled in a comprehensive data warehouse. By providing this analytic support, CHCPR will provide an ongoing service to the University that will help Penn State maximize the value it receives for the dollars it spends on health benefits. Analysis will focus on how different benefit designs and decisions impact the health of our Penn State population and will thus guide informed decision making and establish a platform for long term sustainability.

Social Science Research Institute

The Social Science Research Institute (SSRI) is an inter-college initiative supported by the Office of the Vice President for Research and the Colleges of Health and Human Development, Liberal Arts, Education, and Agricultural Sciences. In addition to providing seed funding for interdisciplinary and inter-unit research collaborations, SSRI provides a shared infrastructure to assist faculty in undertaking social science research projects. CHCPR projects regularly make use of these research support services, which include the Penn State Survey Research Center (SRC), a large data archive, and a group of statistical programmers who are familiar with social science data and the software packages that are typically used to analyze them. Dr. Scanlon was asked in 2014 to serve as a member of the SRC advisory committee.

Within SSRI, CHCPR maintains a partnership with the Population Research Institute (PRI). PRI and CHCPR have intersecting interests in population health. PRI spearheaded the submission of a successful proposal to the National Science Foundation to support the creation of a Census restricted data center (RDC) at Penn State. The RDC opened in Spring 2014 and will greatly expand opportunities for CHCPR affiliates and PRI to study policy and system determinants of population health. In 2014 Dr. Scanlon and Dr. Hillemeier met with PRI Director Dr. Jennifer Van Hook to discuss how best to further collaboration between CHCPR, HPA and PRI. A number of strategies were discussed and some have already been pursued. For example, PRI and CHCPR will collaborate with a new faculty member in HDFS and with existing staff in the Prevention Center to recruit and hire a programmer with expertise in health claims data analysis. In addition, CHCPR will make the services of its qualitative research staff available to PRI researchers that have a need for a mixed methods or qualitative study component.

Penn State Cancer Institute

CHCPR works closely with the leadership of the Penn State Cancer Institute to identify faculty with cancer-related research interests and to stimulate new cancer services research, particularly relating to cancer survivorship and the quality of cancer care. In addition, CHCPR is part of an intercampus collaboration, organized around a training grant from the Susan G. Komen Foundation, to mentor doctoral students in studying health and healthcare disparities related to breast cancer.

As mentioned above CHCPR, HPA and the Cancer Institute collaborated on the recruitment of Dr. Joel Segel, who will be joining HPA and the Cancer Institute in a co-funded position. CHCPR is also providing office space for the Cancer Institute's Director, Dr. Raymond Hohl, so he can have a meeting space during visits to University Park. We intend to pursue collaborative relationships and strategic partnerships with the Cancer Institute in 2015 and beyond.

Center for Integrated Healthcare Delivery Systems (CIHDS)

CIHDS is an initiative led by the Department of Industrial and Manufacturing Engineering that grew out of the Health Science Council's strategic planning in 2007-2008. Deirdre McCaughey, an HPA faculty member who is also affiliated with CHCPR, served on the CIHDS board. CIHDS is emphasizing the development of new interdisciplinary educational opportunities related to the re-engineering of healthcare systems and processes, as well as the encouragement of externally funded research in that field. CIHDS is supported by a center grant from the National Science Foundation (an Industry/University Collaborative Research Center) that offers a relatively small amount of public funding to leverage corporate funding for collaborative research studies. In collaborating with Siemens, Lockheed Martin, Verizon, and other industry leaders, Penn State joined Texas A&M Health Center, Georgia Tech, and Northeastern University in this relatively new I/UCRC program at NSF that is focused on redesigning healthcare systems.

CTSI Community Engagement Core

Dr. Scanlon was asked in 2014 to join Penn State's CTSI Community Engagement Research Core (CERC). Dr. Scanlon has been actively participating in this group for more than a year, with a goal of helping researchers to engage organizations and individuals from communities in research, not merely as research subjects but as advisors on the topics to be studied, the research design selected, and interpretation and dissemination of the results. Part of this work involves recruiting and selecting research teams for seed grant awards.

Self-Evaluation of CHCPR Activities 2014 Highlights

Transition of Leadership

Following the retirement of Dr. Pamela Farley Short, Dr. Dennis Scanlon took over directing duties of the Center on July 1, 2014. Upon assuming leadership of CHCPR, one of the first priorities for Dr. Scanlon was speaking with existing CHCPR staff and key affiliated faculty investigators to get their views on CHCPR's strengths and weaknesses. These meetings were informative and generated quite a bit of constructive feedback. For example, it became apparent that there was an opportunity to become more efficiently organized by making changes in staff roles and responsibilities. It was also clear that CHCPR needed to be more proactive in helping to broker research relationships outside of the HPA department. As such, the first year has been used to think strategically about what differentiates CHCPR from other Centers and units at Penn State and how to market and brand CHCPR so others become aware of its core strengths and seek to work with CHCPR.

In the fall of 2014, CHCPR coordinated a group of staff, led by Dr. Scanlon to evaluate and restructure its outreach or 'marketing' strategies. The group identified the center's key resources, activities, and customers and began developing a detailed marketing plan focusing on CHCPR's key service areas. The service areas and descriptions included:

- Identifying Research Opportunities
- Developing and Submitting Proposals
- Strategic Project Budgeting and Accounting
- Subcontract/Consultant Administration
- Payroll Management and Human Resources
- Staffing and Managing Research Projects
- IRB Compliance and Data Security
- Collecting and Analyzing Data
- Identifying and Understanding Research Audiences
- Communicating and Promoting Research Findings
- Health Services Research Colloquium
- Research Training for Graduate and Undergraduate Students
- Developing Professional Networks

Detailed descriptions for each of these service categories were created and a major overhaul of the CHCPR web page was pursued (see <http://hhd.psu.edu/chcpr> for details on our newly redesigned and expanded website). Enhancements include new text descriptions of services offered, examples of past projects, and testimonials from investigators that have used CHCPR services. For in person meetings and venues where print copy distribution is more appropriate, we have designed eye-catching pamphlets and handouts explaining our services. The center also created a uniform biography sheet for each staff member that can easily be distributed to potential project investigators looking for specific skills when making staffing decisions for research projects. In short, quite a bit of time was expended on this effort as way of clearly identifying and communicating CHCPR's core strengths and value proposition. We believe this was a critical first step, and have since then have been using these revamped materials as we present the case for working with CHCPR.

Website

As mentioned above, when developing content for the new CHCPR marketing strategy, we did so with an eye towards a major overhaul of the CHCPR website. In the new design, we purposely attempted to change the typical jargon laden language with more common language that clearly signaled what services and skills we have to offer. For example, we organized our services into three main categories: (1) Getting Research Funded; (2) Getting Research Done; and (3) Preparing for Future Funding. While simple, we believe these three areas reflect what is ultimately most important to faculty researchers. The new website also features CHCPR's areas of health services research expertise as well as details on past projects, research methods used and other Center activities, such as the research colloquium.

The new look and feel of the website is designed to be user friendly, eye-catching, and informational. We conducted a round of user testing and made several improvements based on the feedback we received. A setback in the development of our website is a noticeable limitation in technological capabilities of our college's design. The new 'skin' is an improvement over the previous design, but there are a number of technological enhancements incorporated in other Penn State websites that we wish we could utilize.

'Constant Contact' Email Communications

The Center relies heavily on communicating with our affiliates via email. It was important to develop a system for sending messages that are informative and also visually appealing in order to attract as many affiliates to open and read our communications. This past year the Center upgraded its email communications to use an online system that allows us to add logos, banners, and overall make them more interesting. We use this system for sending funding opportunity announcements, advertising our Health Service Research Colloquium speakers as well as any other general announcements to our affiliates. The system also allows us to track each message to see who is opening and also clicking the links we send. This lets us target our affiliates better and effectively make connections with other researchers. We use third party vendor software to design these messages and we have received many positive comments about the new 'look' and 'feel' of our CHCPR communications.

Building Collaboration Across Penn State and Externally

Another major priority for Dr. Scanlon was making visits and having conversations with potential partners that can help CHCPR achieve its strategic goals. This has included both meetings hosted in our offices in the Ford Building as well as visits to others' offices to discuss CHCPR. Examples of organizational entities that Dr. Scanlon has met with in 2014 since assuming the Director position include: Geisinger Health System, AmeriHealth, Penn State Cancer Institute, the U.S. Department of Defense National Security Association, Penn State's Prevention Center, the Population Research Institute, the PA Employees Benefits Trust Fund, the Massachusetts's Health Policy Commission, The Commonwealth Fund, the Colorado Healthcare Foundation, Penn State's Department of Communications and several others. Many of these meetings have already led to research collaborations (e.g., Naleef Fareed submitting an NIH proposal with Geisinger researchers or HPA collaborating with the Cancer Institute on the co-funded hire of Joel Segel). In addition, our 2015 report will no doubt highlight additional productivity from these and future outreach efforts.

Community Involvement

As a supplement to the university's fundraising effort to benefit the Center County United Way, CHCPR sold snacks at Halloween and drinks throughout the year, with all proceeds being donated. We raised over \$800 for United Way during 2014. We also organized a food drive for the State College Food Bank and, in conjunction with HPA, were able to deliver 14 bags of non-perishables and \$265 in cash and gift cards in time for distribution for Thanksgiving dinners.

Difficulties Encountered In Past Year

There were no significant difficulties encountered in the past year other than the expected challenges associated with the transition in Center leadership. However, most of the CHCPR staff seem to be energized by the opportunities the transition brings including the goal to grow CHCPR into a thriving unit that further expands important health services research at Penn State.

Short or Long Term Issues

While it has not yet been a year since the Center experienced leadership transition, we have already been experiencing some growing pains. We've learned in the early part of 2015 that we received one major multi-year award from AHRQ (through subcontract with RAND) and we have been selectively invited to submit proposals in limited competitions for the Robert Wood Johnson Foundation, the Colorado Health Foundation and the Massachusetts Health Policy Commission. In addition, we have demand from external partners, such as Geisinger's Autism and Developmental Medicine Institute, to assist in the pursuit of collaborative externally funded research. Two clear challenges present as a result of this growth and expanded interest. First, the ability to manage this growth as most existing CHCPR staff are fully committed to existing projects such as AF4Q, requiring that new staff will most likely need to be hired. Second, is finding credible and experienced investigator level talent willing and able to take the lead on new project opportunities that are presented. The former requires a clear plan for Center project and personnel management as there become more large projects each with their own moving parts and deliverables. Thus, as this growth continues it is inevitable that some support, such as an Associate Director, will be needed. Second, it will be important for HPA with its new hires as well as other units, to consider the opportunities that are being presented to CHCPR and to help to identify faculty members with the capability of leading research projects. As Center Director, Dr. Scanlon took it upon himself to write and submit several grants in the last year, even though he has little time available to sell. In many cases he involved individuals from other units, such as the Prevention Center or Hershey Medical Center, and in other cases he involved HPA collaborators such as Dr. Fareed, Dr. Moran, Dr. Shi, and Dr. Knapp. But to reach its growth potential, it will be important for CHCPR to work with other units to identify individuals with the skill set to lead these large scale applied health services research projects.