An Impact Evaluation of the
Community Pharmacy Foundation's Grants Program: 2002-2015

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Background

The Community Pharmacy Foundation (CPF) is a non-profit organization dedicated to advancing community pharmacy practice and patient care delivery through grant funding and resource sharing. The CPF first awarded grants in 2002 with funds from a class action, pre-trial partial settlement against discriminatory pricing affecting US community pharmacies. Since that time the CPF has awarded 151 grants totaling $7,172,583.

Objectives

1. Describe the SCOPE of completed grants funded by the CPF from 2002 through June 2015.

2. Describe the IMPACT of completed grants funded by the CPF from 2002 through June 2015.

IRB/Funding

Methods

This study used a mixed methods analytical approach. Data were obtained from the CPF website, CPF personnel, and principal investigator interviews and then categorized using content analysis. Coding rules and definitions for all measures were formulated and applied by two trained judges. Quantitative findings from 107 completed CPF-funded grants were described overall (2002-2015), for 'Initial Years' (2002-2008), and 'Recent Years' (2009-2015) using Chi-Square and t-test descriptive statistics. Qualitative findings (for Impact Measure 4) were produced from open-ended responses to email requests by 99 of the 114 principal and co-investigators from the 107 completed CPF grants. Responses were evaluated and categorized following the same process described in the quantitative arm. The study variables are described below:

SCOPE — QUAN Measure 1

Domain	Definition
1: Medication Management, Safety & Quality	Projects with objectives or topics that further the understanding, implementation, or evaluation of appropriate medication use.
2: Therapeutics, Diseases, & Populations	Projects with objectives or topics that further the understanding, implementation, or evaluation of disease treatment in individuals and populations.
3: Pharmacy Management & Ownership	Projects with objectives or topics that further the understanding, implementation, or evaluation of pharmacy management and ownership.
4: Profession, Academics, & Economics	Projects with objectives or topics that further the understanding, implementation, or evaluation of pharmacy practice, education, and economics.

SCOPE — QUAN Measure 2

Institution Type
Academic
Non-academic

SCOPE — QUAN Measure 3

Category	Amount ($)
1	≤$1,000
2	$1,001-$25,000
3	$25,001-$50,000
4	$50,001-$100,000
5	>$100,000

IMPACT — QUAN Measure 1

AHRQ Impact Level	Definition
1	Add to the knowledge base only and do not represent a direct change in policy or practice.
2	May directly lead to a policy or program change.
3	May cause a change in what clinicians or patients do, or may alter a care pattern.
4	May change actual health outcomes (e.g. clinical, economic, QoL, etc.) or profoundly change practice.

IMPACT — QUAN Measure 2

Three Part Aim	Definition
Improving Patient Care	Projects with objectives and results that further the understanding, implementation, or evaluation of methods for "improving the individual experience of care for patients."
Population Health	Projects with objectives and results that further the understanding, implementation, or evaluation of methods for "improving population health."
Controlling Costs through Quality Improvement	Projects with objectives and results that further the understanding, implementation, or evaluation of methods for "reducing the per capita costs of care for populations."

IMPACT — QUAN Measure 3

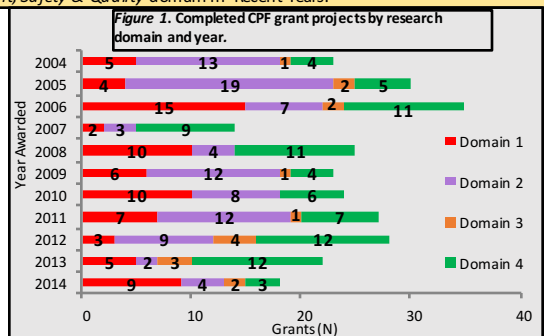| Coordinated Use of Medications	Definition
Payment Reform	Projects with results that further the understanding, implementation, or evaluation of global or budgeted payment models that standardize and incentivize appropriate medication use to help meet quality health goals.
Delivery Reform	Projects with results that further the understanding, implementation, or evaluation of new payment models with prerequisites (i.e. credentialing) and strategies for delivering medication-related care and services.
Real-time Data Integration	Projects with results that further the understanding, implementation, or evaluation of health information environment standardization, completeness, and real-time point of care data crucial to effective and efficient medication use.

IMPACT — QUAL Measure 4

Investigator Impact	Definition
Practice Development	Investigators used project results for practice development.
Promotion & Advancement	Investigators used project results and funding for career advancement.
New & Expanded Collaborations	Investigators used project to establish future collaborations.
Funding Opportunities	Investigators received subsequent funding related to their project.
Awards	Investigators received an award or other notable recognition related to their project.
Reimbursement Reform	Investigators used results to improve pharmacist compensation policies.

Results

SCOPE: The domain receiving the most funding shifted from *Therapeutics, Diseases & Populations* in the 'Initial Years' to the *Medication Management, Safety & Quality* domain in 'Recent Years.'

TABLE 1. Grant Recipient Funding Levels, Institution Types, and Research Domains

	Initial ('02-'08) N=56	Recent ('09-'15) N=51	Overall ('02-'15) N=107
Amount Funded			
• ≤$1,000	0%	2%	1%
• $1,001-$25,000	38%	35%	36%
• $25,001-$50,000	39%	41%	40%
• $50,001-$100,000	16%	20%	18%
• >$100,000	7%	2%	5%
Chi-Square p-value =0.58			
Institution Type			
• Academic	50%	59%	54%
• Non-Academic	50%	41%	46%
Chi-Square p-value =0.36			
Domain			
• 1	23%	45%	33%
• 2	47%	22%	35%
• 3	21%	16%	19%
• 4	9%	18%	13%
Chi-Square p-value =0.01			

Figure 1. Completed CPF grant projects by research domain and year.

IMPACT: Almost three quarters of studies funded above $50,000 impacted the Three-Part Aim (p=0.03). The proportion of studies with an AHRQ Impact >1 rose between the 'Initial Years' (39%) and 'Recent Years' (68%). Investigators also reported that grant projects improved their practices, careers, collaborations, and future funding.

TABLE 2. AHRQ Impact Level for Completed CPF Grants

	Initial ('02-'08) N = 36	Recent ('09-'15) N = 71	Overall ('02-'15) N = 107
AHRQ Level 1	61%	32%	42%
AHRQ Level 2	22%	41%	35%
AHRQ Level 3	17%	23%	21%
AHRQ Level 4	0%	4%	3%

TABLE 3. 'Three-Part Aim' Fulfillment for Completed Grants

	Initial ('02-'08) N = 36	Recent ('09-'15) N = 71	Overall ('02-'15) N = 107
Patient Care p=0.84	58%	56%	57%
Pop. Health p=0.82	58%	61%	60%
Cost Control p=0.01	3%	21%	15%
Three-Part Aim			
• None	33%	30%	31%
• One	17%	18%	18%
• Two	47%	37%	40%
• Three	3%	15%	11%
p=0.24			

TABLE 4. 'Coordinated Use of Medications' Fulfillment for Completed CPF Projects

	Initial ('02-'08) N = 36	Recent ('09-'15) N = 71	Overall ('02-'15) N = 107
Payment Reform p=0.19	6%	14%	11%
Delivery Reform p=0.09	56%	72%	66%
Data Integration p=0.25	6%	13%	10%
'Coord. Med. Use'			
• None	44%	24%	31%
• One	44%	59%	54%
• Two	11%	11%	11%
• Three	0%	6%	4%
p=0.10			

Conclusions

The results showed a shift in funding from a therapeutic focus towards value-based medication management. CPF also significantly impacted personal/professional grantee advancement and community pharmacy practice.