

The high cost of

medication-related problems

- One third of all patients are taking five or more prescriptions.
- Patients with chronic illness account for 75% percent of all U.S. healthcare costs.
- The United States spends \$200 billion a year dealing with drug therapy problems:
 - ineffective or unnecessary drugs
 - improper dosage
 - adverse drug reactions (ADEs)
 - poor adherence
- Nationally, at least 1.5 million preventable ADEs occur, costing \$887 million annually—almost \$2000 per event.

Clinical pharmacy services

reduces costs and improves care

- The 2011 Surgeon General's report on advanced pharmacy practice found an overall average benefit of \$10.07 for each dollar invested in CPS.
- The Patient-Centered Primary Care Collaborative indicates the Return on Investment (ROI) for medication management (including reduction in hospital admissions, use of unnecessary or inappropriate medications, emergency room admissions, and overall physician visits) is as high as 12:1, with an average of 3:1 to 5:1.

Source: Institute of Medicine, 2007; CDC, 2009; U.S. Surgeon General's Office, 2011; Patient-Centered Primary Care Collaborative, 2012.

What providers are saying about CPS

"I strongly support the role of a clinical pharmacist within the primary care medical home model... Their knowledge of medications and patient education ability has augmented the skillset of the physician and demonstrated improved outcomes, reduction in adverse events, and cost savings... Including pharmacists [in CCO development] would have a highly beneficial effect on access, outcomes, and cost."

Melinda Muller, MD, FACO
Clinical Vice President, Primary Care
Legacy Medical Group

"Adding a CPS program has helped us provide better care to some of our most vulnerable patients. The risk of adverse drug events has declined and medication adherence has increased. This program has freed provider time for diagnosis and treatment of more patients. Pharmacists have become invaluable members of the care team."

Charlene Clark, MD, Medical Director
Community Health Centers of
Benton and Linn Counties



Clinical Pharmacy Services

Pharmacists improving quality and lowering the cost of health care for Oregonians

An educational message from Acumentra Health and the Oregon Pharmacy Coalition.
For more information, contact
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Oregon State
Pharmacy Association



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Clinical Pharmacy Services: Improving quality and lowering cost

What is Clinical Pharmacy Services (CPS)?

CPS is a patient-centered service that promotes the appropriate utilization of medications to optimize individualized treatment outcomes.

- Provided through personalized patient assessment and management
- Delivered by an interdisciplinary healthcare team; best provided by a pharmacist or by another healthcare professional in collaboration with a pharmacist

CPS optimizes medication therapy and promotes health, wellness, and disease prevention.

Clinical Pharmacy Services include

- Medication access services to patients
- Patient counseling and preventive care programs
- Drug information services to patients
- Medication reconciliation services
- Provider education
- Medication therapy management (MTM)
- Comprehensive medication management (CMM)
- Disease state management
- Prospective chart review and provider consultation
- Retrospective drug utilization review

How can CPS help improve the health of Oregonians?

Pharmacists are an important element of providing effective care to Oregon's high-risk, complex patients. Through collaboration with primary care providers, CPS improves quality of care and lowers costs.

CPS is associated with

- ✓ Reducing hospitalizations
- ✓ Reducing readmissions
- ✓ Improving patient adherence to medication
- ✓ Preventing adverse drug events
- ✓ Reducing pill burden
- ✓ Lowering drug costs
- ✓ Improving chronic disease management
- ✓ Increasing patient self-management

How can CPS help Coordinated Care Organizations meet growing demands for care?

- Clinical pharmacists free providers to dedicate more time to the diagnosis and initial design of treatment, enabling them to see more patients.
- Integration of CPS supports enhanced reimbursement through Meaningful Use and Patient-Centered Primary Care Home certification.
- CPS supports CCOs in meeting the EHR composite measure and the Medicare Value-Based Purchasing criteria.

What is CPS achieving in Oregon?

PacificSource Medicare MTM Program

Results for 2011–2012:

- Improved patient satisfaction
- Helped over 1,083 patients avoid potentially dangerous medication problems
- Total cost avoidance (soft savings) > \$500,000, ROI = 7:1

Legacy Emanuel Clinic CPS Program

Results for 2008–2010:

- 20% improvement in HbA1c in patients receiving CPS over the last 3 years, compared with 1% improvement in patients not receiving CPS
- 2,273 fewer ED visits; cost savings \$2.1 million
- 125 fewer hospitalizations; cost savings \$3.1 million

HRSA Patient Safety and Clinical Pharmacy Services Collaborative, Oregon Clinics

- In 2012, the rate of adverse drug events per high-risk patient screened by a pharmacist was reduced from 0.71 to 0.31 (N=125).