Preventing Medication Errors:
A $21 Billion Opportunity

NEHI

BEND THE CURVE

$21 B

$700 Billion Waste[1]

SOLUTIONS

- Improve Care Coordination
- Facilitate Patient Engagement
- Require Pharmacist Follow-up
- Enhance Technology Interventions
- Increase Incentive Payments
- Update Accreditation/Certification

Targeting the $21 billion spent annually on preventable medication errors requires building on proven practices and implementing policy actions that target the root causes of the problem.

Preventable medication errors represent a significant source of wasteful health care spending. The causes of medication errors are complex and systemic, resulting from the fragmented nature of the care delivery system and the failure to effectively share and use health care data.

THE PROBLEM

Scope of Medication Errors
- Each year in the U.S., serious preventable medication errors occur in 3.8 million inpatient admissions and 3.3 million outpatient visits.[2,3]
- The Institute of Medicine, in its report *To Err Is Human*, estimated 7,000 deaths in the U.S. each year are due to preventable medication errors.[4]

Costs of Medication Errors
- Inpatient preventable medication errors cost approximately $16.4 billion annually.[5]
- Outpatient preventable medication errors cost approximately $4.2 billion annually.[6,7]

Prescription Errors
- Dosing errors make up 37 percent of all preventable medication errors.[8]
- Drug allergies or harmful drug interactions account for 11 percent of preventable medication errors.[9]
- Preventable medication reconciliation errors occur in all phases of care: 22 percent during admissions, 66 percent during transitions in care and 12 percent during discharge.[10]
- Approximately 100 undetected dispensing errors can occur each day as a result of the significant volume of medications dispensed.[11]

Fragmentation of Care
- Only 13 percent of primary care physicians reported that they communicated with a pharmacist regarding new prescriptions.[12]

Lack of Information Technology Infrastructure
- EMR systems that are described as fully functional and had a prescribing function were reported by only 4 percent of physicians.[13]
- Electronic prescribing is used by only 32 percent of physicians in ambulatory care settings.[14]

SOLUTIONS

Improve Care Coordination
- **Proven Practice**: Improved communication among physicians, pharmacists and nurses prevented 85 percent of serious medication errors.[15]
- **Proven Practice**: Including a pharmacist on routine medical rounds led to a 78 percent reduction in medication errors.[16] Adding a pharmacist to a physician rounds team in an intensive care unit led to annual savings of $270,000.[17]

Reducing preventable medication errors requires building on a coordinated set of proven practices in the field coupled with policy actions in the public and private sectors.

Using care coordination strategies, interdisciplinary teamwork and information technologies can significantly reduce preventable medication errors.

These interventions increase the availability of data, provide clinical decision support, engage the patient and improve the accuracy of prescriptions.

► Learn more about ways to Bend the Curve in health care costs at: www.nehi.net/bendthecurve

Facilitate Patient Engagement
- **Proven Practice**: Medication errors can be reduced through active engagement of patients and family caregivers with the care team, the use of patient safety checklists, and increased awareness of publicly reported hospital safety records.
- **Policy Action**: Adopt Joint Commission recommendations for medication reconciliation, ensuring that medications are reconfirmed and reviewed with the patient at each transition in care.[18,19]
- **Policy Action**: Empower patients and family caregivers to manage their medications by keeping PHRs and personal medication lists and informing them about the purpose, effects, and side effects of their medications.[20]

Require Pharmacist Follow-up
- **Proven Practice**: Patients who received pharmacist follow-up calls were 88 percent less likely to have a preventable medication error resulting in an ED visit or hospitalization.[21]

Enhance Technology Interventions
- **Proven Practice**: e-Prescribing systems reduced medication errors by 85 percent and generated net cost savings of $403,000 in ambulatory care settings.[22,23]
- **Proven Practice**: Verifying the correct drug dosage with Bar Code Electronic Medication Administration System (eMAR) technology led to a 51 percent reduction in medication errors and annual savings of $2.2 million in a large academic hospital.[24,25]
- **Proven Practice**: Computerized Physician Order Entry (CPOE) with clinical support reduced serious medication errors by 81 percent.[26]

Increase Incentive Payments
- **Policy Action**: Assist health professionals and hospitals in adopting clinical IT tools (EHRs, e-prescribing, CPOE and eMAR), achieving "meaningful use" standards (drawn from HIT Policy Committee recommendations) and earning federal incentive payments.
- **Policy Action**: Provide private and state payer-based financial incentives to providers using evidence-based practices that reduce medication errors and using EHRs that generate key patient medication information (active medication lists, medication allergy lists).
- **Policy Action**: Encourage providers to participate in the CMS Electronic Prescribing (eRx) Incentive Program.

Update Accreditation/Certification
- **Proven Practice**: Certifying providers as trained and proficient in teamwork.
- **Policy Action**: Have specialty societies encourage providers to participate in the CMS Physician Quality Reporting Initiative (PQRI) for documenting current medications in the medical record.
- **Policy Action**: Set standards and require public reporting of medication errors as a condition for state licensure.

THE PROBLEM

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SOLUTIONS

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