TOPICS ADDRESSED IN THIS ISSUE BRIEF

1. MEDICATION THERAPY MANAGEMENT: SAFETY ISSUES

- Medication-related problems and medication mismanagement are massive public health problems in the US.
- 1.5 million preventable adverse events occur each year that result in $177 billion in injury and death.¹

“The most critical MTM-related components: MTM or elimination of polypharmacy, disease management, lab testing or POC testing services, and implementation of wellness programs and the provision of immunizations.”

—Patient Care Services in Rural Minnesota Community Pharmacies

A 2010 UMN College of Pharmacy biennial pharmacy workforce survey reported:
- Greater percent of rural pharmacies reported providing MTM services than urban.
  o Attributed to the geographic isolation in some rural areas of Minnesota and the demand for services that may be difficult to find otherwise.

Providing MTM services may be more critical for rural compared with urban pharmacies because rural residents may rely more heavily on their pharmacy for medication-related needs as a result of limited access to physician services.

- Rural pharmacies were more likely to provide a drug information than urban pharmacies. This may be attributed to a relative lack of other drug information sources available to rural patients and providers compared with urban dwellers, such as high-speed Internet connections being less available in rural than urban communities.

2. MAJOR PROBLEMS FACING ELDERLY POPULATION

- Non compliance
- Adverse drug reactions (more than any other age group)
- On average, elderly are on 5 medications
- \(\frac{1}{4}\) of all hospital admissions in elderly persons are drug related

Elderly patients frequently do not follow their prescribed regimens, which may be attributed to lack of understanding, forgetfulness, inability to manage multiple medications & lack of access.

Previous studies suggested that up to 51% of medications for elderly patients might be overused and that up to 90% might be misused. Lack of knowledge and lack of timely access to patient information are considered root causes of prescribing errors.

3. BARRIERS TO THE DELIVERY OF PHARMACY SERVICES IN RURAL AREAS

- 21% of Americans live in rural, while only 12% of pharmacists practice in rural areas
- There were 126 one pharmacy towns (of 5,000 or fewer residents) in MN in 2005
  - Many rural pharmacy owners plan to sell their business within 10 years
- Aging pharmacy workforce - 22.5% of MN pharmacists in rural counties were older than 55 years in the late 1990s, but just 14.1% of MN pharmacists in urban counties were older than 55 years at that time.

4. TELEPHARMACY

- Usually involves having a larger hospital with round the clock pharmacist staffing review medication orders sent electronically or via fax from one or more smaller rural hospitals in the same system.
- Rural hospital telepharmacy models normally involve sharing the services of pharmacists among hospitals in the same health care system.
- Some CAHs reported that Medicare cost-based reimbursement was helping them pay for telepharmacy.

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2 Rural Community Pharmacy Assistance Program (Cenla Medication Access Program)
3 Improving Primary Care in Rural Alabama with a Pharmacy Initiative
4 Patient care services in rural Minnesota community pharmacies
5 Student Pharmacist Perspectives of Rural Pharmacy Practice (2005)