# Evidence that Community-Based Long-Term Care is Preventive Care

**VirginiaTech** — Invent the Future

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## What is Community-Based Long-Term Care?

**Community-based Long-Term Care** reduces use of nursing homes by providing in-home to older adults with disability in daily activities, such as:

Eating    Bathing    Dressing

Toileting    Getting around inside

**Disability in daily activities** affects
- 15% of adults age 65-74
- 40% of adults age 85+

**Family and friends** provide the vast majority of care; 40% give up or reduce employment to provide care

**Medicaid** provides the greatest amount of paid Community-Based Long-Term Care

**Unmet Need for Disability Care** affects 20% of disabled older adults living at home

**Self-reported health consequences of unmet need:**

falling    weight loss    skin breakdown

## Relevant Health Policy Questions

➢ **Are reports of unmet need for disability care predictive of future health care utilization?**

➢ **Does provision of disability care reduce rates of hospitalization?**

## Data Source

**Centers for Medicare and Medicaid Services (CMS)**

Evaluation data for new CMS programs

Medicare and Medicaid data including:
enrollment
date of death
medical claims including diagnoses

## Using CMS Data to Inform Policy

**Benefits of using CMS data:**

Covers all recipients

Includes all CMS paid health care utilization:
type (e.g. hospitalization, ER), volume, timing, diagnoses, expenditures

**Modeling CMS Health Utilization:**

Use practice and policy relevant outcomes: e.g. hospitalization, ER use, death

Risk adjust for factors that affect amount of disability care received such as disability level, illness severity, and insurance status

**Limitations of using CMS data:**

Protection of private health information requires significant planning and resources

Diagnoses are for billing purposes and do not necessarily describe primary reasons for care

## Study 1: Unmet Need for Disability Care Increases Risk for Hospitalization

**Population:** Medicare enrollees aged 65+

**Unmet Need for Disability Care:** determined from 5,884 nationally representative respondents to the National Long-term Care Survey

**Hospitalization** in the year after the survey was determined from linked Medicare claims data and referred to both number of admissions and time to admission

**Model** included adjustment for demographics, illness and disability status and prior use

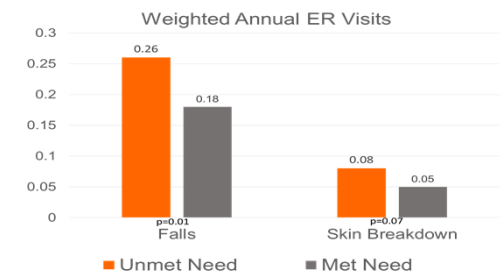| Unmet Need for Disability Care | Population Count | Annual ER Admission Rate | Adjusted Incidence Ratio (95% Confidence Interval) |
|---|---|---|---|
| No | 2,827,649 | 0.87 | - |
| Yes | 822,391 | 1.19 | 1.19 (1.01 – 1.40) p=0.05 |

JAGS, 2012; Statist. Med., 2013

## Study 2: Reports Of Insufficient Disability Care Are Associated With ER Admissions

**Population:** Medicare enrollees aged 65+

**Study Methodology:** Similar to Study 1, ER diagnoses taken from claims data

| Unmet Need for Disability Care | Population Count | Annual ER Admission Rate | Adjusted Incidence Ratio (95% Confidence Interval) |
|---|---|---|---|
| No | 2,827,649 | 0.87 | - |
| Yes | 822,391 | 1.19 | 1.19 (1.01 – 1.40) p=0.05 |



Weighted Annual ER Visits — Falls: Unmet Need 0.26 (p=0.01), Met Need 0.18; Skin Breakdown: Unmet Need 0.08 (p=0.07), Met Need 0.05. ■ Unmet Need ■ Met Need

## Study 3: Providing Community-Based Long-Term Care Reduces Hospitalization

**Population:** 2,943 disabled Medicaid beneficiaries aged 65+ enrolled at demonstration sites for The Program of All Inclusive Care (PACE)

**No Disability Care:** refers to enrollees who had lived at home without someone to help with disability care

**PACE** is a capitated fee program for dual-eligible community-living older adults that provides all needed medical and disability care



Hospitalization Rates Pre and Post PACE Enrollment

| | 6 Weeks Prior | 0 - 6 Weeks After | 7- 12 Weeks After |
|---|---|---|---|
| | OR= 1.26 (1.01 – 1.57) | OR= 1.44 (1.00 – 2.08) | OR= 0.79 (0.50 – 1.25) |

JAGS, 2006