Evaluating "Care by Design" –a New Model of Long-term Care from Physicians Perspectives

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Background

Previously, residents entering long-term care facilities (LTCF) in the Capital District Health Authority (CDHA) maintained or found a family physician for primary care. As a result many different family physicians provided care to residents within a single LTCF, creating care coordination challenges. Previous studies demonstrate uncoordinated mechanisms of primary care in LTCF are less effective than coordinated models, can result in limited access to appropriate primary care, and lead to sub-optimal outcomes for residents, particularly for end-of-life care. This study examines changes in physician care for LTCF residents with the introduction of a new model of care called "Care by Design".

Objective

To study a coordinated model of dedicated primary care physician and team approach to long-term care facilities called "Care by Design".

Rationale

The results of the Primary Care of the Elderly (2006) study pointed to primary healthcare deficits in long-term care facilities in CDHA including:

- reduced number of physicians working in long-term care,
- lack of access to appropriate primary care in LTCF
- high rates of transfers from LTCF to emergency departments
- medical directors frustration with the lack of care coordination

Solution: 'Care by Design

Beginning in the summer of 2009, CDHA implemented a new model, "Care by Design" that included:

- Dedicated per-floor physician with 24-hour on-call physician coverage
- Team approach to primary care in long-term care facilities
- Extended care paramedics providing on-site acute care and facilitated transfers
- Mandated use of Comprehensive Geriatric Assessment tool (LTC-CGA)

Long-Term Care Facility	Number of Beds	Number of physicians before Care by Design (2008)	Number of physicians after Care by Design (2010)
A	446	76	12
B	149	24	6
C	87	18	4
D	190	26	5
E	192	32	6
F	124	24	4
G	124	30	4
Total	1312	**230**	**41**

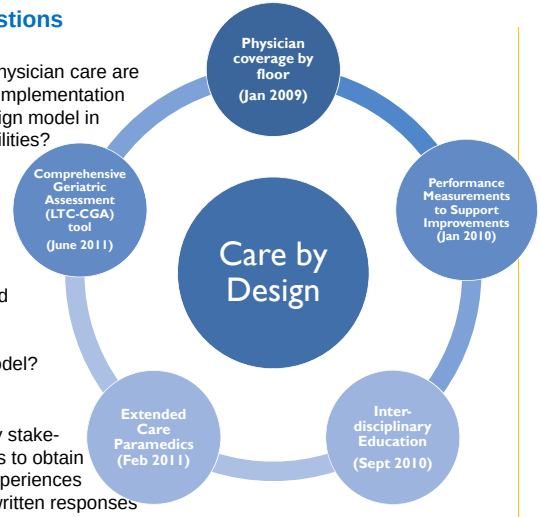
Research Questions

Quantitative:

What changes in physician care are observed pre/post implementation of the Care by Design model in long-term care facilities?

Qualitative:

How do family physicians, nurses, administrative staff, paramedics, care assistants, and residents/families experience the Care by Design model?



Methodology

Qualitative: 11 key stake-holder focus groups to obtain perceptions and experiences supplemented by written responses to open-ended questions.

Focus groups informed emerging themes and an interview guide for 40 in-depth interviews with 7-10 participants from each stakeholder group.

Key stakeholders: Care by Design physicians, nurses, administrative staff, extended care paramedics (ECP), care aids, residents, and family members.

Quantitative: Chart reviews (n=1325) from long-term care facilities, acute care, and emergency health services over 3 time periods

- ✓ Pre-Care by Design (Sept 2008-Feb 2009)
- ✓ Care by Design Physicians (Sept 2010-Feb 2011)
- ✓ CBD Physicians and ECP (Sept 2011-Feb 2012).

Emerging Results

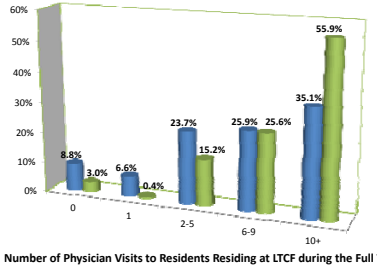
Preliminary qualitative findings:

- Improves clinical efficiency by reducing travel time to visit residents in multiple LTCF
- Care by Design physician team provides peer support when addressing clinical challenges
- Care by Design physician team shares on-call reducing individual burden
- Regular visits within one LTCF floor or wing promotes better communication amongst care teams, residents, and family members.
- Continuity and quality of care is improved for residents with a coordinated interdisciplinary team.

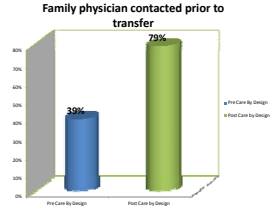
Preliminary quantitative data: shows **36% a reduction in transfers** from LTCF to ED over 6 months with the Care by Design Physicians:

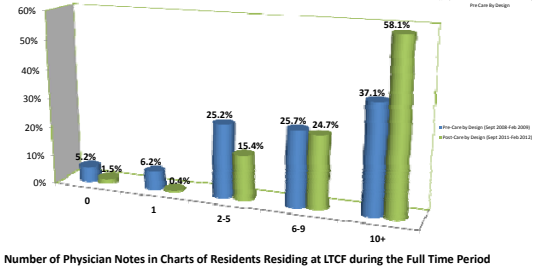
	Pre-Care by Design (Time 1)	With Care by Design Physicians (Time 2)
Average 911 calls/month	72.4 (range=60-88)	47.4 (range =39-54) ~35% reduction
Average 911 calls/month resulting in transport to ED	68.4 (range 56-85) ~94.5% of calls	43.6 (range=56-49) ~92.0% of calls ~Overall 36.2% urgent transport reduction

Increased primary care physician contact



Number of Physician Visits to Residents Residing at LTCF during the Full Time Period





Number of Physician Notes in Charts of Residents Residing at LTCF during the Full Time Period

Conclusions

Preliminary findings are promising and give support for the continued integration of a physician-per-floor model with 24 hour on-call coverage. Further outcomes (i.e., quality indicators) pre- and post-implementation, including a middle time period where the physician was in place prior to the extended care paramedics, continue to be analyzed.