Research Priorities in Home Care: Lessons Learned from the Visiting Nurse Service of New York

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Presentation Outline

- Definitions and context
- Four case studies
- Lessons Learned
- Future HSR Priorities
- Questions

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Health Services Research Definitions

- **HSR . . .** examines how people get access to health care, how much care costs, and what happens to patients as a result of this care.
- … main goals … are to identify the most effective ways to organize, manage, finance, and deliver high quality care; reduce medical errors; and improve patient safety. *(Agency for Healthcare Research and Quality, 2002)*
- **HSR . . .** studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviors affect access to health care, the quality and cost of health care, and ultimately our health and well-being.
- …domains are individuals, families, organizations, institutions, communities, and populations. *(http://www.academyhealth.org/About/content.cfm?ItemNumber=831)*

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U.S. Home Care

- **Short-term home health services**
  - ❑ Medical benefit provided by Medicare, Medicaid and private insurers
  - ❑ Physician-ordered, primarily "post-acute," skilled care
  - ❑ Payment for an "episode" or a visit
- **Supportive care at home**
  - ❑ Primarily out of pocket except for people poor enough to quality for Medicaid
  - ❑ Medicaid rules vary by state
  - ❑ Person must usually be nursing-home eligible

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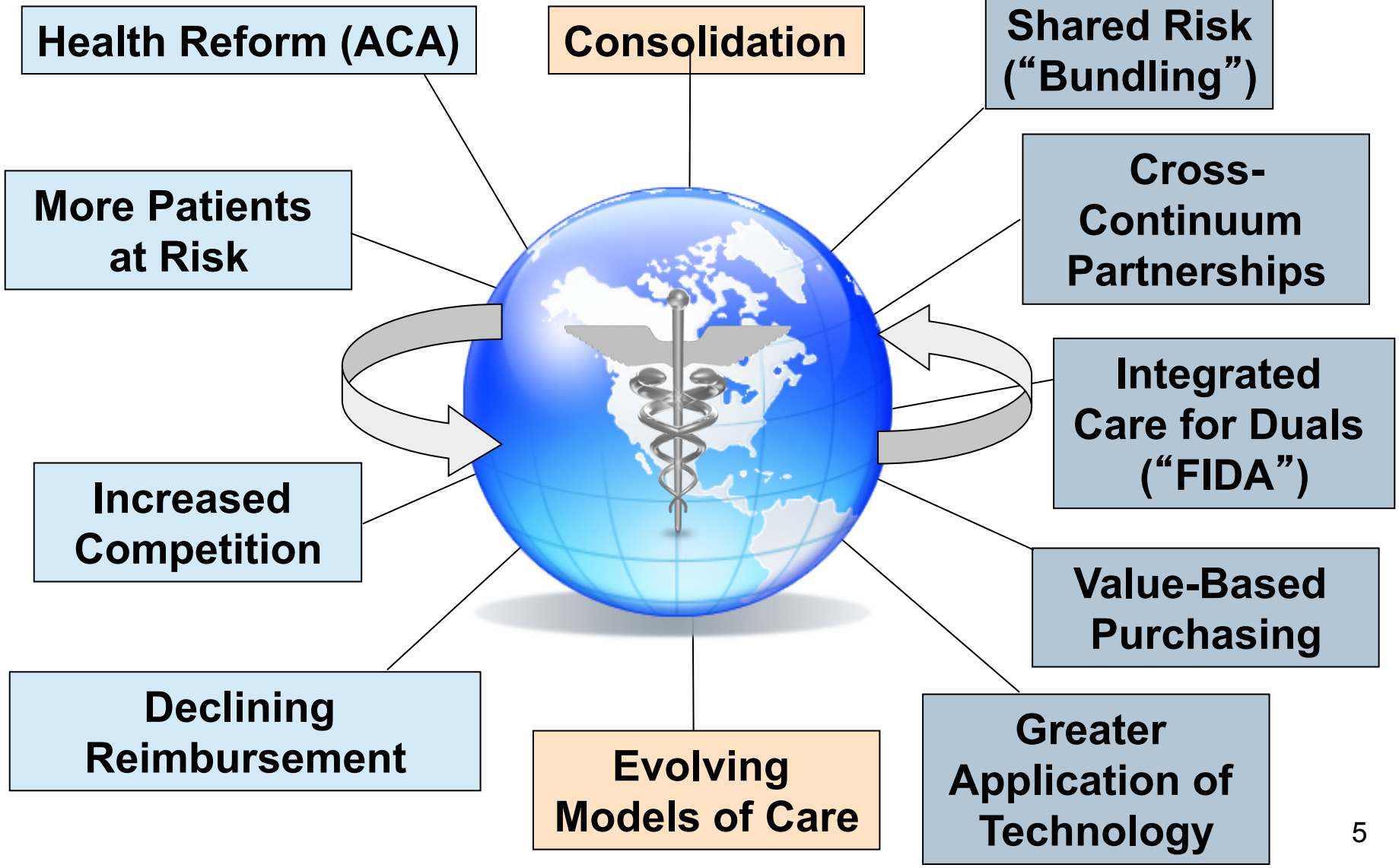

Health Reform (ACA)
Consolidation
Shared Risk ("Bundling")
More Patients at Risk
Cross-Continuum Partnerships
Integrated Care for Duals ("FIDA")
Increased Competition
Value-Based Purchasing
Declining Reimbursement
Evolving Models of Care
Greater Application of Technology

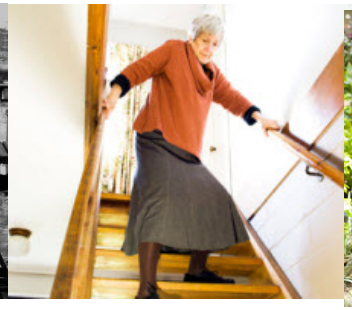
Visiting Nurse Service of New York (VNSNY)

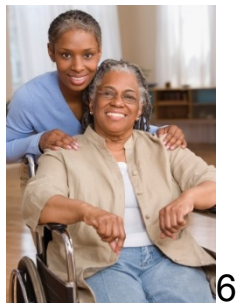
- Established in 1893
- Today, largest non-profit home health care organization in U.S. – provider services, VNSNY CHOICE Health Plans
  - ❑ ~18,000 employees, 155,000 patients, 2.4 million professional visits annually
  - ❑ Tradition of charitable care

Provide high-quality, cost-effective health care

Be a leader in innovative services

Help shape health care policies, services

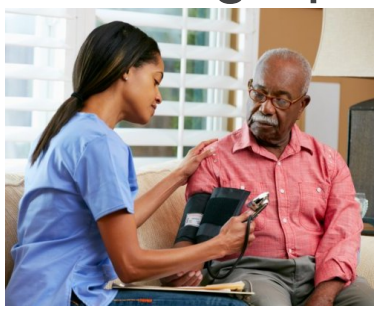
VNSNY
Center for Home Care Policy & Research

Established in 1993

Mission: **Data → Information → Action**

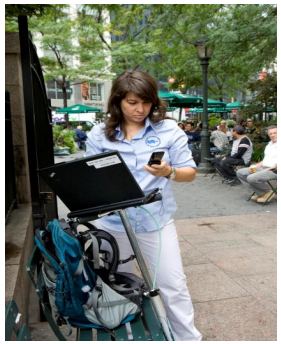
Data

- Claims/utilization
- Clinical/functional status
- Medications
- Experience of care
- Staff demographics



IT

- Pen-based computers tablets used by clinicians in field
- Electronic Health Record
- Point of service decision support



VNSNY
Center for Home Care Policy & Research

Research Center Focus Areas

- **Improve quality and outcomes of home health care**
- **Help people manage chronic conditions**
- **Analyze/Inform public policies**
- **Support Age-Friendly Communities [AdvantAge Initiative]**

- What works?
- For whom?
- Is it cost-effective?

Four Illustrative Case Studies

Interventions tested:

- HOME Plans, Email Reminders, Clinical Decision Support, Early/intensive RN/MD visits

Goal

Improve outcomes of patients with high risk chronic conditions by influencing provider and consumer behavior

Home Outcome Management & Evaluation (HOME©) Plans: RCT

Objective, Participants, Hypotheses

- Test evidence-based guideline adapted for home health setting
- Randomize nurses with eligible patients
- N = 612 HF and diabetes patients

Compared to usual care, HOME© Plans will improve patient outcomes & satisfaction and reduce visits & variation

Core Components

- Quality improvement tool
- Patient self-care guide

Findings

- HF: ↓ nursing visits and variation
  - No significant impact on ED, hospitalization, patient outcomes/satisfaction
- Diabetes:
  - No significant impact on visits, outcomes/ satisfaction., etc.
  - Confidence to manage diabetes ↓

"Just in Time" Email Reminders: RCT

Objective, Participants, Hypotheses

- Test evidence-based email reminders
- Randomize RNs with eligible patients
- N=500 RNs, 1301 HF and cancer pain patients
- **Compared to UHC, E-mail reminder will improve RN practice, patient outcomes, costs**

Core Components

- Automated Email reminder list of key practices
- Advanced Practice Nurse expert availability
- RN Pocket Guide/patient self-care guide

Findings

- Cancer pain – no impact
- HF:
  - ↑ RN educational practice, patient outcomes
  - No significant impact on 45-day ED or hospital stays
  - Costs: ↑

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Heart Failure "Just-in-Time" E-mail Reminder: RCT

Your patient, Jane Doe, has a primary diagnosis of heart failure.
Please ADHERE to these guidelines to improve patient outcomes.

A **A**ssess meds are correct to treat HF and patient uses
D **D**ocument and monitor V/S and S/S q visit
H **H**ave patients record daily weight and act on increase
E **E**ducate about low sodium choices
R **R**ecognize and help patients learn response to HF symptoms
E **E**ncourage use of Heart Failure Self-Care Guide

(Document all your interventions)
(SCROLL DOWN for more details)

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CDS for Medication Complexity: RCT

Objective, Participants, Hypotheses

- Test reminder and CDS targeted to RNs
- Randomize nurses with eligible patients
- N= 500 RNs; 7919 patients, 826 survey
- **Compared to UHC, CDS patients will have reduced medication complexity/ hospital stays**

Core Components

- Automated Complexity reminder
- Complexity E H R "problem"
- Patient educational materials

Findings

- RCT: intervention had no significant impact
  - Users of CDS
    - Medication complexity ↓
    - 60-day hospitalization ↓

Early, Intensive Home Health and MD Visits: Pragmatic Comparative Effectiveness Study

Objective, Participants, Hypotheses

- Assess impact of home care/MD visit patterns on HF rehospitalization
- Analyze national Medicare Claims
- N = 98,730 Medicare HF home health patients
- **Early, intensive home care and MD visits will reduce 30-day rehospitalization**

Core Components

- Early, intensive visit pattern defined by experts
- National Medicare claims data analyzed
- "Instrumentation" approach used to reduce selection bias and approximate RCT condition

Findings

- 3 home care RN visits plus 1 outpatient MD visit in first week post-hospital: ↓ 30-day rehospitalization by 7 percentage points

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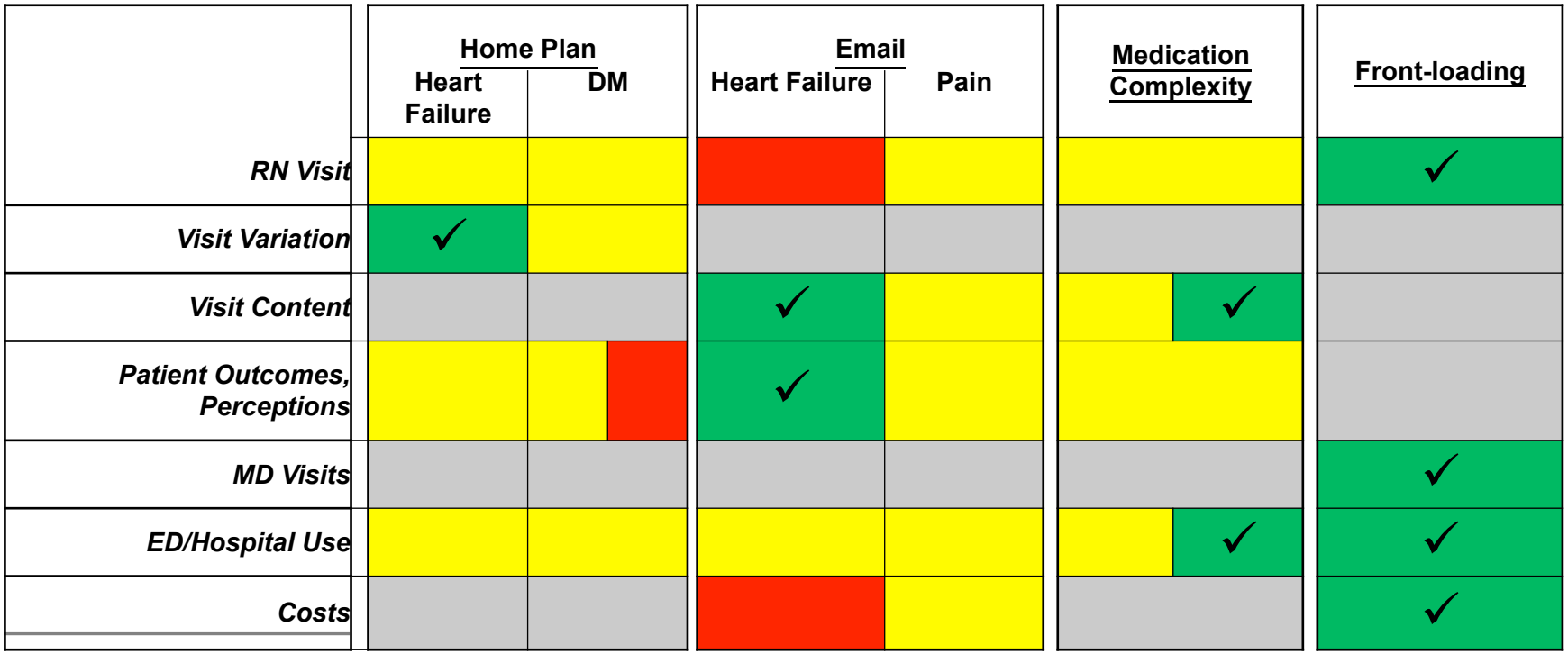
Changing Behavior and Outcomes
Summary Slide – Four case studies, 15 years



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Clinicians and Clinical Settings: What We Have Learned

- Evidence-based guidelines ***must*** be adapted
- Integrating CDS and other interventions into standard systems and practices ideal, but not always possible
- Clinicians receptive to QI – BUT…….
- Offering something does not necessarily mean busy clinicians will use it
  - ❑ Organizational focus, individual preparation/attitudes, understanding of patient conditions/needs can all influence use

THERE IS NO MAGIC BULLET!

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Patients: What We Have Learned

- Multiple barriers impede self-care management
  - ❑ "Social determinants" http://www.who.int/social_determinants/en/
    - Poverty
    - Community
    - Family structure/demands/capacity
  - ❑ Information/communication barriers
  - ❑ Attitudes/beliefs
  - ❑ Illness and therapeutic complexity – multimorbidity
  - ❑ Health care system
    - Insurance
    - Provider type and availability
    - Attitudes/beliefs/training/competencies/practice

DAILY LIVING TRUMPS ILLNESS MANAGEMENT!

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Research Process: What We Have Learned

- Applied research may require organizational disruption
  - ❑ Temptation to work at the margin
- Research timeline rarely "in sync" with organizational timelines/decisions
- Research sample sizes often too small
- What works in one situation may not work in others

CONTEXT, MECHANISMS, CUMULATIVE KNOWLEDGE-BUILDING ARE KEY!

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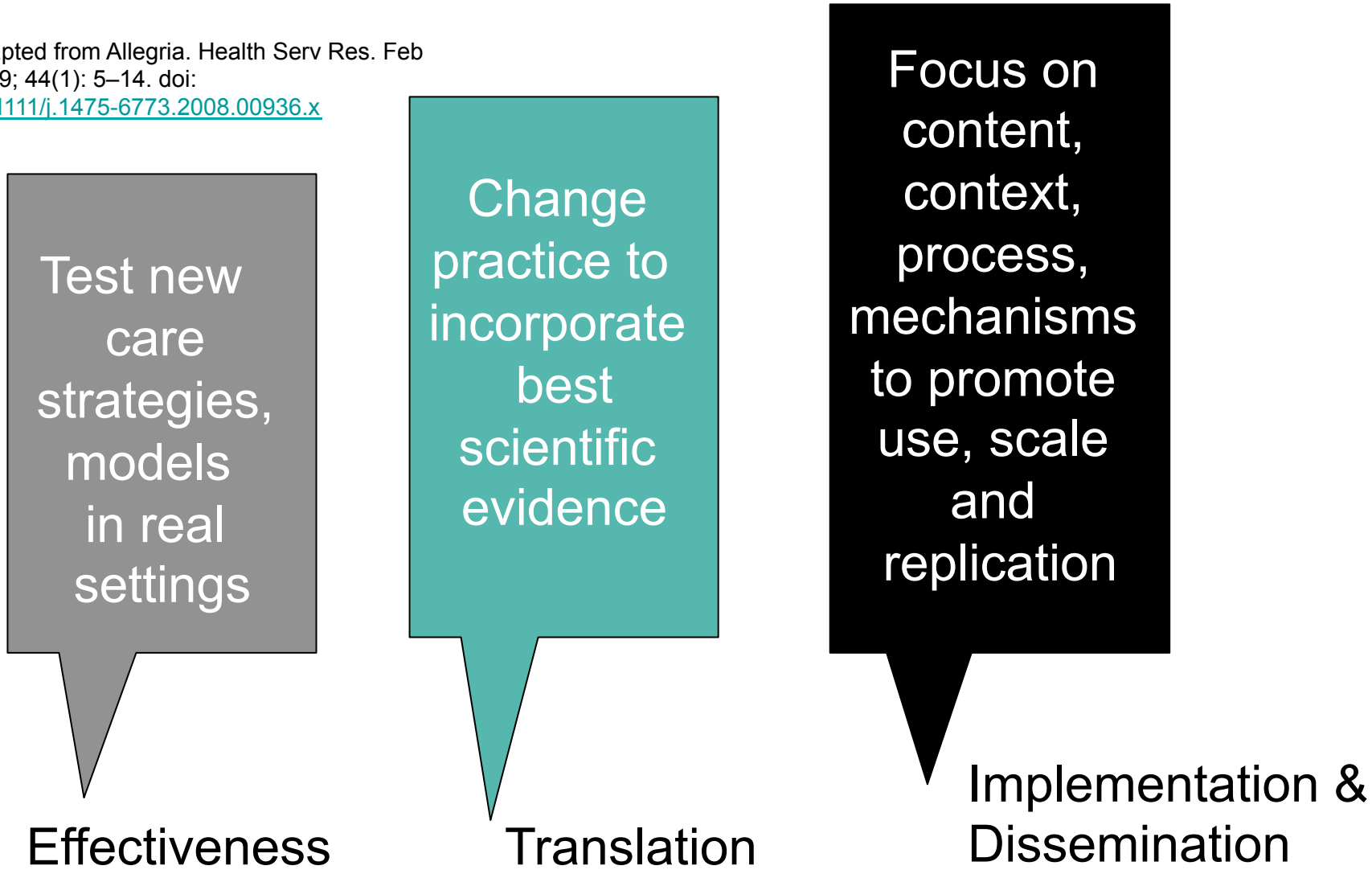
Moving from Effectiveness to Implementation and Dissemination

Adapted from Allegria. Health Serv Res. Feb 2009; 44(1): 5–14. doi: 10.1111/j.1475-6773.2008.00936.x



"Hot" Interventions to Improve Home Care Delivery and Outcomes

- **Integration of care across boundaries**
  - ❑ Transitions, interprofessional collaboration, care coordination
- **Technology**
  - ❑ Practice change (reminders, clinical decision supports)
  - ❑ Assistance at home (Telehealth, reminders, remoter monitors)
- **Community-/Patient-focused self-management support**
  - ❑ Patient-family training/support, coaches/navigators, community health workers

Program evaluations, randomized studies
In real world settings

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Home Care Research Priorities Moving Forward

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Priority 1
Implementation and Dissemination

Decisions/Behaviors to be Understood/Influenced

•Providers (organizations, teams) – priorities, resources, responsiveness to change, capacity to scale up

- ❑ Volume vs. value
- ❑ Disease management vs. population health
- ❑ Shared governance vs. traditional decision-making
- ❑ Interprofessional collaboration vs. "solo practice"

- **Providers (clinicians)**
  - ❑ Practice change vs. "clinical inertia"
  - ❑ Patient/family-centered vs. clinician-directed care
- **Consumers**
  - ❑ Goals of care, advanced illness planning
  - ❑ Behavior
    - Healthy life style choices
    - Adherence to medication and therapeutic regimens

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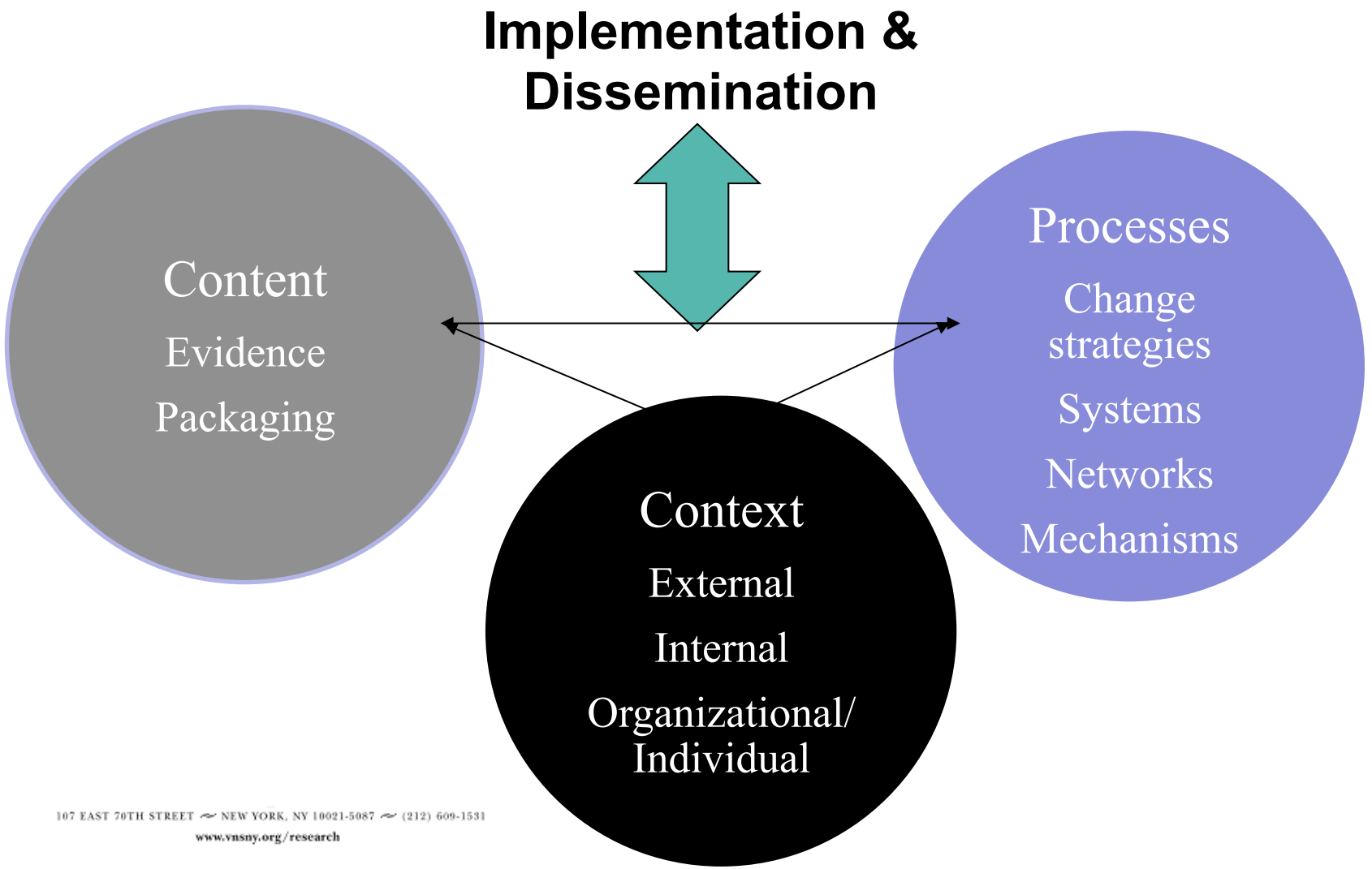
Priority 1
Influencers and Determinants



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Priority 2
Economic & Non-Economic Incentives

- **Providers**
  - ❑ Regulation – licensure, inspection
  - ❑ Payment – value-based vs. "status quo" (cost, volume)
  - ❑ Information – "detailing," publicly reported outcomes

- **Consumers**
  - ❑ Insurance/benefit design – service package, limits, copays, deductibles
  - ❑ Targeted economic incentives – type, frequency, duration, triggering
  - ❑ Information – social marketing, publicly reported outcomes

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Priority 3
Health and Health Care Disparities

- **Defining and explaining disparities**
- **Interventions to reduce disparities**
  - ❑ Stratification and targeting
  - ❑ Cultural tailoring
- **Innovative service delivery models in settings that serve disparities populations** (coaches, community health workers, "positive deviance")
- **Methods**
  - ❑ How to address heterogeneity and small sample sizes
- **Cross-cutting issues**
  - ❑ Populations with multiple/overlapping disparities (e.g., female/minority, culturally/linguistically diverse, physical disability, mental illness)

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Priority 4
Methods

- **Validating measures, metrics, measure batteries**
  - ❑ Quality of life, experience of care, "patient-centeredness"
  - ❑ Measures for cognitively impaired populations
  - ❑ Knowledge use/knowledge impact
  - ❑ Successful implementation/dissemination/sustainability
  - ❑ Interprofessional collaboration, organizational effectiveness
- **Case-mix/severity adjustment/risk stratification**
- **Alternatives to RCTs**
  - ❑ Pragmatic trials
  - ❑ "Instrumentation" and other ways to approximate randomization
- **"Big data," data-mining and informatics**
- **Participatory Research (communities, patients/families)**

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Going Forward

- Assume dynamism and complexity
- Acknowledge: availability ≠ use

  equal access ≠ equal outcomes
- Focus on *content, context and processes*
- Identify underlying *mechanisms*
- Understand *economic and non-economic incentives*
- *Refine methods* to tackle problems at hand
- Share *accumulated knowledge*

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Thank you!

Questions?

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