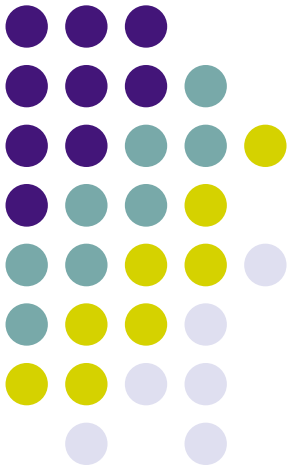
Understanding Variations in Patient Care from the Patient's Viewpoint

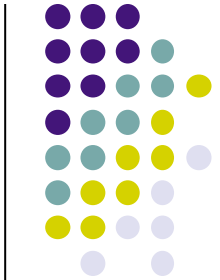
Integrated Patient Care Expert Advisory Panel

Boston, MA ● September 13, 2013



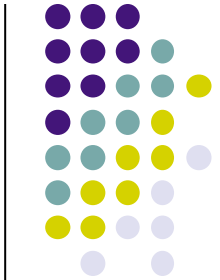
Financial support for this research was provided by The Commonwealth Fund and Kaiser Permanente Community Benefit; the Lucian Leape Foundation provided financial support for the advisory panel. Thanks to Ariadne Labs for hosting the inaugural advisory panel meeting.

Agenda



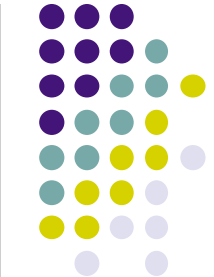
- Lunch
- Welcome and introduction to the day
- Introduction of advisory panel members and their activities in the area of care integration
- Patient/caregiver panel and open discussion
- Break
- Study presentation, discussion, and role of the advisory panel
- Feedback and adjourn

Meet the project team

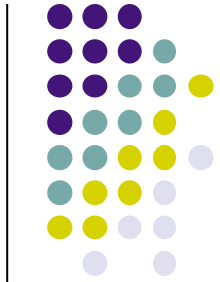


- Harvard
  - Sara Singer, Ashley Fryer, Julia Kite, Anita Tucker
- UC Berkeley
  - Steve Shortell, Patty Ramsay
- Weill Cornell
  - Larry Casalino
- RAND
  - Mark Friedberg, Maria Orlando Edelen
- Penn State
  - Jonathan Clark

Introductions of panel members, guests, and integration activities



- Your background and activities related to integrating care or studying its impact, in which you or your organization are involved



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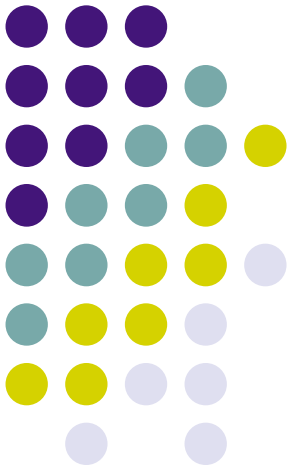

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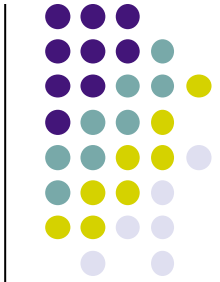
Outline

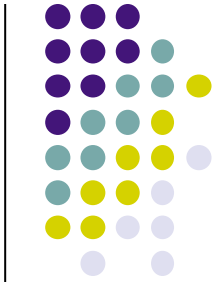
- Background
- Study objectives
- Survey development: Patient Perception of Integrated Care (PPIC) survey
- Preliminary findings
- National study design
- Role of advisory panel

Need for greater care integration



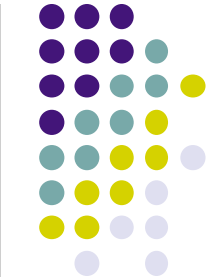
- More patients with complex chronic conditions
- More specialization of providers and fragmentation of patient information
- Need to accommodate patients' needs, social environments, and preferences
- Numerous health reforms encouraging integrated care
- Poor integration of care for these patients presents a large opportunity

Integrated patient care



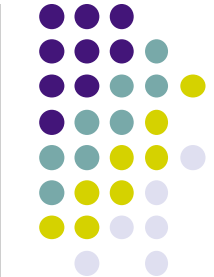
- By integrated care, we mean care that is
  - Coordinated across professionals, facilities, and support systems
  - Continuous over time and between visits
  - Patient centered, i.e., tailored to patients' needs and preferences
  - Based on shared responsibility between patients and caregivers

Research on integrated care



- Prior studies have primarily linked integrated organizational forms or functions to better performance
- Methods have been mainly cross-sectional, use process measures, based on large organizations, small geographical scope, little attention to mediators and moderators, and lacking control groups
  - Notable exceptions
- Paucity of measures for assessing integrated care, particularly as a multi-dimensional construct

Patients' perspective on care integration matters

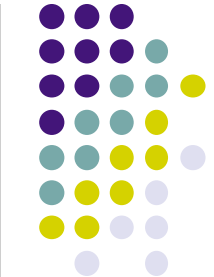


- Patients have a unique vantage across all the services they receive
- Patients are the only ones who can say whether care is integrated in ways that meet their needs and preferences
- Patients' perspective may help providers understand the mechanisms through which integration and patient outcomes improve

Research program on integrated care

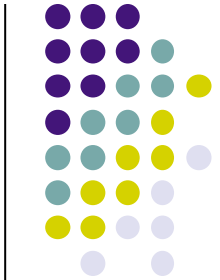
- ✓ Conceptualize integrated care
- ✓ Develop a survey to measure integrated care from the perspective of patients with multiple chronic conditions
- Assess integrated patient care from multiple perspectives, its variation, antecedents, mediators, moderators and outcomes

Objectives of the "national" study



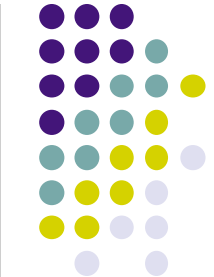
- Measure variation in patients' perceptions of integrated patient care in a stratified, random national sample and assess relationships among dimensions of integration
- Examine organizational characteristics related to integrated patient care and identify those that distinguish physician organizations perceived by patients as more integrated
  - This aim will be studied further in a second qualitative phase of our study

Patient Perceptions of Integrated Care Survey



- PPIC 2.0 is a novel, 35-item survey that treats integrated patient care as a multi-dimensional construct
  - Includes aspects of coordination and patient-centeredness
  - Treats integrated care as separate from both integrated organizational structures and patient outcomes

Survey development, pilot, and evaluation



- Survey development included creating a conceptual framework, consulting prior surveys and experts, instrument review, and cognitive testing
- Administered two pilots tests
  - A 29-item version 1.0 Feb-May 2010 administered to 1289 patients in 11 clinics (43% response)
  - A 35-item version 2.0 Dec-Mar 2013 administered to 3000 patients in 9 clinics (51% response)
- Performed preliminary psychometric assessment and descriptive results

Evolution of the PPIC survey

Original conceptual factor	PPIC 1.0	PPIC 2.0
1. Coordinated within care team	1a. Information flow to your primary provider	1a. Information flow to your primary provider
	1b. Information flow to other provider's in your primary provider's office	1b. Information flow to other provider's in your primary provider's office
2. Coordinated across care teams	2a. Information flow to your specialist	2a. Information flow to your specialist
	2b. Information flow post hospitalization	2b. Information flow post hospitalization
3. Coordination between care teams and community resources	3. Coordination with home and community resources	3. Coordination with home and community resources
4. Continuity: familiarity with patient over time		4. Continuous familiarity with patient over time
5. Continuity: proactive and responsive action between visits		5a. Proactive action before visits
	5. Continuity post visit coordination	5b. Post-visit information flow to the patient
		5c. Responsive independent of visits
6. Patient centeredness	6. Patient centeredness	6. Patient centeredness
7. Shared responsibility		7. Shared responsibility

Comparison of PPIC to patient experience surveys

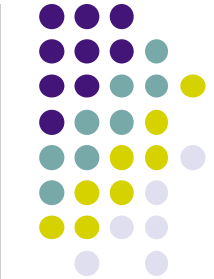
Consistent or exactly as comparable surveys

- Preliminary information (e.g., to confirm primary provider and office or clinic) and demographic information
- CAHPS communication construct (to test discriminant validity)
- 2 additional items drawn from CG or PCMH CAHPS

New in PPIC survey

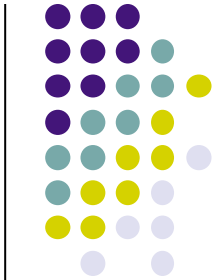
- 25 original items; 8 modified to apply to new domains
- Integration not only by primary doctor and within primary doctor's office
- Greater depth in each domain

Applications of PPIC for measuring integrated care



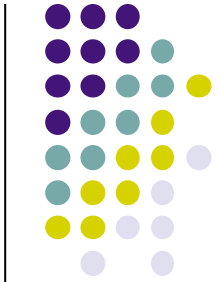
- Two national research studies
  - 15,000 chronically-ill patients in a stratified sample of US physician organizations (Commonwealth/Kaiser)
  - 84,000 chronically-ill veterans in a stratified sample of VA medical centers (VA, Meterko PI)
- Adaptions of PPIC survey
  - Survey development for pediatric population (Packard, Antonelli/Ziniel/Singer PI)
- Others interested in using PPIC in whole or part

PPIC 2.0 preliminary study



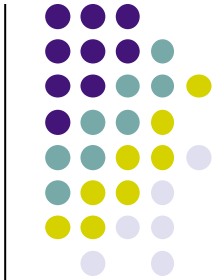
- Objectives for project team
  - Measure integrated patient care in a similar sample
  - Attempt to confirm survey properties and reliability of PPIC 2.0
- Objectives for participating physician group
  - Develop baseline against which to assess ongoing integration efforts
  - Compare perceptions of integrated care among patients in a specialized care management program to those receiving regular care

Sample



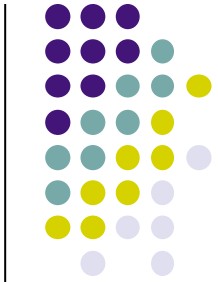
- Administered PPIC 2.0 to 3,000 patients from nine physician practices belonging to one large multi-specialty physician group in New England
  - 2+ chronic conditions, 65 years and older, one or more visit at one of the targeted practices during the 6 months prior to surveying, oversample of recently hospitalized patients
  - 191 patients in physician group's CMP and 1140 receiving regular care
- Response rate 51% (1,503 survey respondents)

Analysis plan



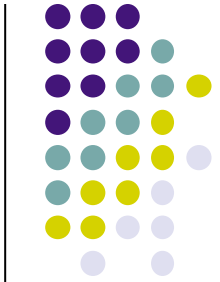
- Calculated % of patients who provided a “top-box” response to each item and group of items, overall and by medical group
- Compared % top-box responses for CMP and non-CMP patients, including controlling for self-reported demographic characteristics
  - Fair/poor health, age (75+), obtaining at least some college education, and having more than two chronic conditions
- Psychometric analysis to confirm the latent scale structure of PPIC 2.0 responses

Sample characteristics



Characteristic	Overall
Average number of chronic conditions	4.31
Percent reporting fair-poor health	21.6%
Percent reporting age 75 or older	53.6%
Percent male	48.0%
Percent did not graduate from high school	6.8%
Percent white	95.1%
Percent receiving help to complete the survey	5.9%

Skip pattern analysis



Survey Item	N	%
Total respondents in analytical sample	1,331	100%
Received care from “any other staff” in the office of the primary care provider in the last 6 months (% yes)	640	50.7%
Took any prescription medicine in the last 6 months (% yes)	1,261	96.9%
Tried to contact the office of the primary care provider with a medical question after regular office hours in the last 6 months (% yes)	341	26.9%
Asked by anyone from the primary care provider’s office whether they needed more services at home to manage their health conditions in the last 6 months (% ever)	341	28.7%
Received care from any specialists outside the primary care provider’s office in the last 6 months (% yes)	1,058	81.8%
Admitted to a hospital overnight or longer in the last 6 months (% yes)	390	30.2%

Variation in average % top-box response by domain, 9 practices

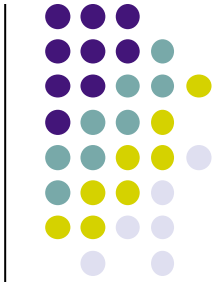
Domain	Ttl	Min	Max	Max-Min Diff
Information flow to your doctor	75%	64%	79%	15%
Information flow to your specialist	69%	62%	72%	10%
Information flow to other providers in your doctors office	59%	46%	64%	18%
Information flow post hospitalization	80%	71%	100%	29%
Proactive action before visits	81%	67%	89%	22%
Post-visit information flow to the patient	81%	71%	86%	15%
Responsive independent of visits	21%	14%	34%	20%
Continuous familiarity with patient over time	74%	63%	81%	18%
Coordination with home and community resources	13%	7%	27%	20%
Patient-centeredness	63%	46%	70%	24%
Shared responsibility	64%	60%	67%	7%
Overall Average	62%	56%	67%	11%

Hypothesized model: regression results

Domain	Uncontrolled Regression		Controlled Regression*	
	CMP (Coef.)	Regular care (P-value)	CMP (Coef.)	Regular care (P-Value)
Information flow to your doctor	-0.05	0.05	-0.05	0.08
Information flow to your specialist	-0.06	0.05	-0.05	0.08
Information flow to other providers in your doctors office	-0.01	0.81	-0.02	0.61
Information flow post hospitalization	-0.01	0.76	0.01	0.85
Proactive action before visits	-0.04	0.02	-0.03	0.08
Post-visit information flow to the patient	-0.03	0.28	-0.01	0.78
Responsive independent of visits	0.08	0.01	0.07	0.02
Continuous familiarity with patient over time	-0.03	0.19	-0.02	0.50
Coordination with home and community resources	0.10	0.00	0.06	0.03
Patient-centeredness	-0.01	0.75	0.00	0.90
Shared responsibility	-0.04	0.11	-0.03	0.21
Average of survey items	-0.02	0.14	-0.02	0.33

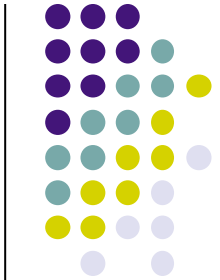
* Controlling for self-reported fair/poor health, age 75+, at least some college education, and 2+ chronic conditions

Psychometric analysis: three models



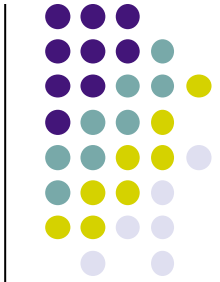
	Hypothesized Model	Empirical Model	Hybrid Model
No. of items	35	24	20
No. of dimensions	11	4	3
No.(%) dimensions with adequate or near adequate reliability	4 (40%)	3 (75%)	3 (100%)
Goodness of fit	--	Acceptable	Good
Strengths	• Face validity with providers • Operationally-oriented, so actionable	• Data driven • Conveys patients' perspective	• Conveys patients' perspective • Easily understood
Weaknesses	• Structure not well supported by preliminary analysis	• Item groupings not conceptually clear	• Few distinct factors; less actionable

Implications of preliminary analysis



- Means, variance, and missing data all acceptable
- Psychometric analysis suggests patients' perspective may diverge from operational view
  - Yet, patient-oriented factors correspond roughly to broad categories of hypothesized factors
  - Selected items that assess patients' effort, specialists and hospitals vary with each respondent imply need for larger sample
    - Factor structure is likely to become more pronounced in larger, more diverse sample of physician organizations

National study design



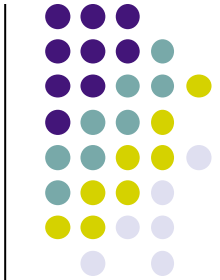
- Measure patients' perceptions of integrated patient care using PPIC 2.0
- Focus on elderly, chronically-ill patients from a stratified, random national sample of physician organizations
  - Use NSPO3 data on physician characteristics to select physician organizations
  - NSPO3 (Shortell/Casalino, PI) surveyed leaders from 3,245 (c. 60% response) small, medium and large sized physician organizations about organizational structure, technological capabilities, care management practices, incentives, and reporting requirements
- Assess variation in perceptions among respondents and relationships among dimensions of integration

Survey sample

- Survey sample includes a stratified random sample of physician organizations + Kaiser Colorado (KPCO) that participated in the NSPO3 survey
  - Divided into 32 cells according to their characterization on five strata
  - "Borrowed" from similar cells to get 64+ per characteristic
- From each of the 135 NSPO3 physician organizations + KPCO, we will randomly select an equal number of patients (15,000 total)

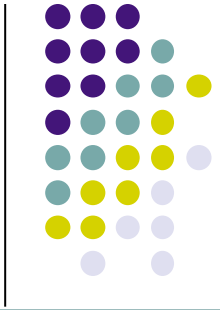
Technological Sophistication	Care management process implementation -technology	Specialist Affiliation, Hospital Affiliation & Size								Total
		Primary Care				Multi-Specialty				
		Hospital Affiliated		Not Hospital Affiliated		Hospital Affiliated		Not Hospital Affiliated		
		Smaller	Larger	Smaller	Larger	Smaller	Larger	Smaller	Larger	
High	High	4	4	3	4	4	11	4	5	39
High	Low	4	4	4	4	2	6	4	4	32
Low	High	5	2	5	5	2	1	10	1	31
Low	Low	5	7	4	6	3	2	5	1	33
	Total	18	17	16	19	11	20	23	11	135

Analysis plan



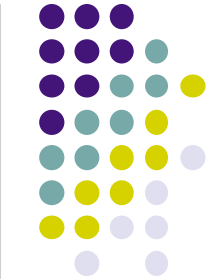
Objective	Phase 1	Phase 2	Funded	Potential extensions
Assess survey properties and structure	✓		✓	
Measure variation in perceived integrated patience care in a stratified, random national sample; assess relationships among dimensions of integration	✓		✓	
Examine organizational characteristics related to integrated patient care and identify those that distinguish physician organizations perceived by patients as more integrated		✓		
Apply to other populations				
Veterans Hospital			✓	✓
Pediatrics			✓	✓
Quantify relationship of organizational characteristics to patient perceived integration				✓
Quantify relationship of patient perceived integration to outcomes data				✓
Validation studies				✓

Timeline



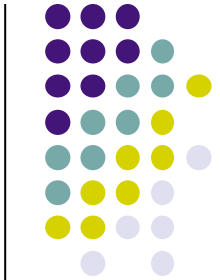
Objective	Period
Phase 1:	
Obtain IRB approvals	Complete
Submit data use agreement application	Complete
Identify stratified random sample of physician organizations	Complete
Invite sample physician organizations to opt out of study	Complete
Convene advisory panel	Complete
Submit physician IDs for sample	Sep 2013
Work with CMS contractors to identify patient sample	Sep-Oct 2013
Work with CMS contractors to invite beneficiaries to opt out	Nov 2013
Send name and address files to survey firm	Dec 2013
Survey firm to administer survey	Jan-Mar 2014
Clean survey data	Mar-Apr 2014
Confirm psychometric properties	May-Jul 2014
Derive survey variables and examine variation in patient perceptions of integrated care	Jun-Oct 2014
Prepare manuscripts	Aug-Oct 2014
Phase 2: Qualitative study of higher and lower performing physician organizations to identify organizational characteristics associated with better care integration from patients' perspective	Nov 2014-Oct 2015

Ongoing role of advisory panel



- Potential workgroups
  - Psychometric assessment
  - Survey and results dissemination
  - Research extensions
  - Patients' voice
  - Other

Thank you!



- Please take a few minutes to complete a short feedback form
  - Suggestions
  - Workgroup preferences