

Multi-morbidity: Challenges and Strategy

1. Problem scope and trends



2. Milestones achieved



3. Opportunities ahead



Tackling the Challenges in Treating Multiple Chronic Conditions

A perspective from Israel

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'The New Normal'

- **>50%** of 45+ old have chronic multi-morbidity
- **3 of 4** members aged >65 are multi-morbid

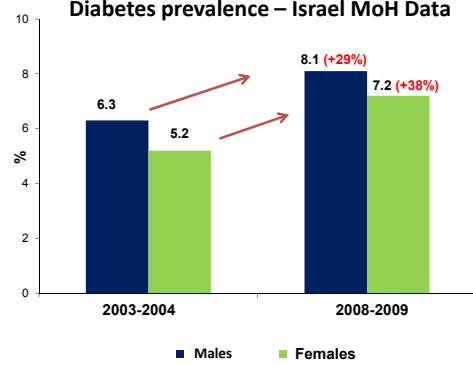
Designing Health Care for the Most Common Chronic Condition—Multimorbidity

Mary E. Tinetti, MD
Terri R. Fried, MD
Cynthia M. Boyd, MD, MPH

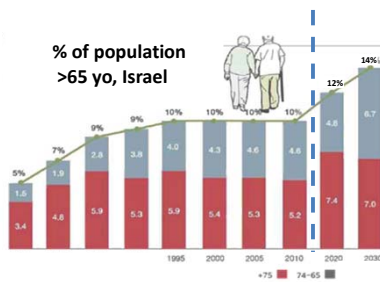
JAMA, June 20, 2012—Vol 307, No 23
Corrected on June 19, 2012

Trends – Chronic Illness

Diabetes prevalence – Israel MoH Data



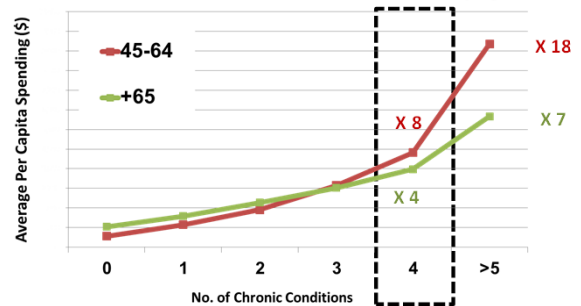
The grey epidemic has yet to arrive!



3 out of 4 aged >65 have multi-morbidity

\$\$ Impact: Cost per patient

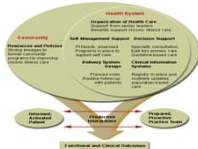
Average Annual Per Capita Spending for Patients with different Numbers Of Chronic Conditions by Age



Treating multi-morbidity??

All the challenges of treating chronic illness

Plus...



Treating multi-morbidity??



And all that – in times of austerity...

- ↓ Resources
- ↓ Health professionals influx



Multi-morbidity patient care

1. **Synergistic** detrimental effects
 - Disease-disease, Drug-Drug
2. **Coordinating** multiple providers
3. **Burden** on patient and family
 - Impractical daily care plan
4. Almost **no EBM** !
 - Impact of quality measures - unclear



Do more ?



Do more !



Frontline
Healthcare
Workers

That paradigm shift just became urgent...

Work in silos

'Equal'

Therapeutic

Reactive

Paternalistic



Coordinated

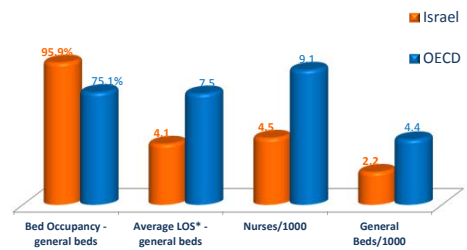
Equitable

Preventive

Proactive

Engaging

Already stretched to the limit...



Healthcare in Israel

- Population: ~8 Million
- Health Insurance: Mandatory, capitation state funding
- Healthcare provision: 1 of 4 sick funds (insurer/provider)
 - Emphasis on community GP clinic primary care
 - Non-for-profits
 - 90% 'happy' or 'very happy' with their health plan

Current state of affairs - Israel

Do we currently have the right setting
(infrastructure and incentives)
for this type of care?

"Every system is perfectly designed to get the results it gets."

Paul Batalden, M.D



Setting in Israel: A good starting point

- **Infrastructure:**
 - Universal coverage
 - Strong community clinic care
 - Strong IT and 100% EMR coverage (meaningful use)
 - With established quality measurement & QI platform
 - With hospital-GP interoperability & data sharing

Clalit Health Services: Israel's largest health provider


- 50% coverage – 4 Million members
 - Over-representing minorities, low SES, elderly
- 1,500 primary care clinics
- 30% of hospital acute beds



CLALIT 100

Clalit Research Institute

- Data to insights, insights to policy
- Multidisciplinary group:
 - Physician researchers
 - Epidemiologists
 - Biostatisticians
 - IT specialists
 - Data-mining mathematics specialist
- International collaborations


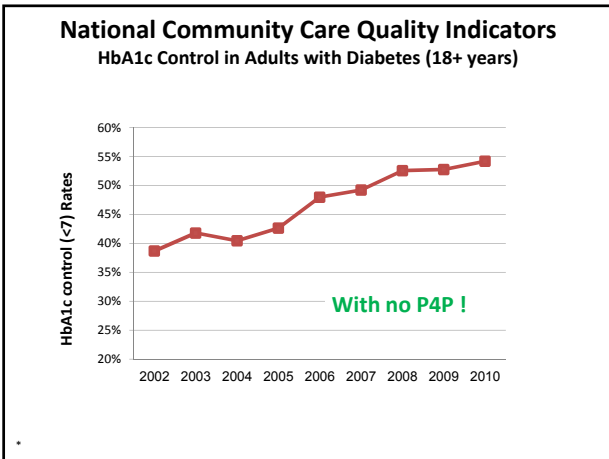


CLALIT 100

Clalit Health Services: A unique data repository

- Electronic information since late 1980's
- EMR Coverage in 100% of community clinics
- Data available in a centralized Data Warehouse
- Clinics, Hospitals, Labs, Pharmacies
- Smoking, BMI, Drug adherence...
- Socio-demographic data
- Real-time data on costs
- Chronic Disease Registries (>180)

Full life-span, ID-tagged, Geo-coded data
~ 4M people, for over a decade...

ISRAEL


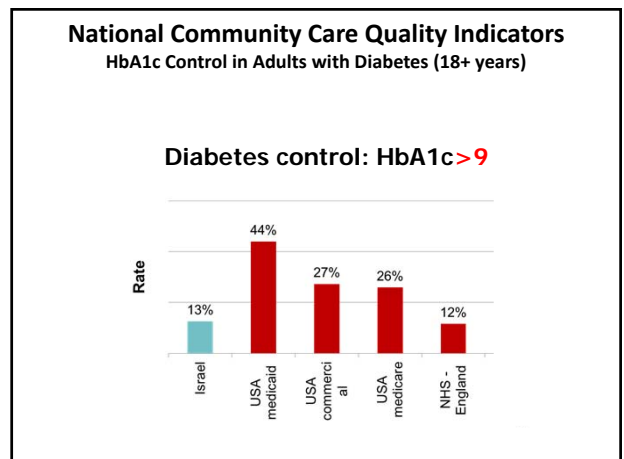
Setting in Israel: A good starting point

- **Incentives** aligned with patient centeredness:
 - Life-long sick fund membership (~1% ann. attrition)
 - Few cream skimming options (in the public sector)
 - High % of Salaried physicians
 - No p4p in general practice
 - Health plans: competition and innovation

ISRAEL

Setting: Infrastructure Challenges

- Long term care - a separate silo
- Mental health (still) a separate silo
- Health personnel increasing shortage
- Hospital-community coordination

Recent local achievements of potential international interest



Coordinated → Equitable → Preventive → proactive → Engaging

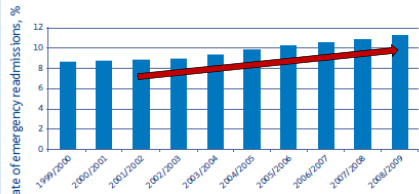


Setting: Incentives - Challenges

- Hospitals, specialists still incentivized for volume
- Hospital accountability for post discharge
- Elderly care and deterioration prevention
- Private care ensuing

Readmissions: UK

Figure 1. Growth in emergency readmissions over time



Part of the rise in readmissions can be accounted for by the overall rise in emergency admissions (11.8% since 2004/05³). However, this cannot completely explain the trend.

Source: National Centre for Health Outcomes Development, Hospital E

³8.3 per cent of all admissions are readmissions within 30 days, totalling £2.2 billion income for hospital trusts³

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Readmissions as a symptom



Readmissions - Israel

country	Subgroup	Readmission rates	Israel rates
Hong Kong (Wong et al, BMC HSR, 2011)	Internal med wards	16.7%	14.3% (age adjusted)
	2007		
US (Jencks et al, NEJM, 2009)	Medicare (65+)	19.6%	17.5% (Urgent & planned readmission)
	2003/4		
UK (Department of Health, 2008)	16-74 yo	9.1%	8.9%

Shadmi, Balicer et al, Clalit 2012

Readmissions - Israel

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Shadmi, Balicer et al, Clalit 2012

Coordinated

Readmission reduction: Examples for action taken

- ✓ Incentives for Re-admission reduction (MoH)
- ✓ CoC Nurses (Hospital-based community nurses) stationed in every hospital
- ✓ New integrative IT systems (hospital and GP clinic)
- ✓ GP Clinic nurse phone outreach upon discharge
- ✓ Home teams enhanced and activated

Coordinated

Bridging the Hospital-Community Gap: where should we aim?

- Data-driven, targeted, continuity of data
 - GP clinical data available on admission
 - Readmission risk stratification
 - Hospital data available at GPs desktop
- Care transition for at-risk patients
 - Community nurse stationed at hospital
- Closing the hospital-community gap
 - GP clinic telephone-contact patients post discharge
 - Home care teams directed as needed



Coordinated



Readmission risk prediction remains a poorly understood and complex endeavor.

Coordinated

Implementation - Clalit

% of patients **not** approached by GP within 7 days of discharge
(lower = better)

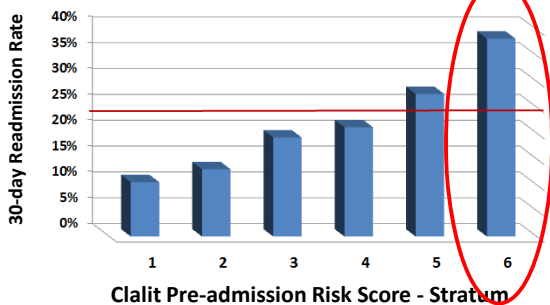
Project onset
Q3, 2012



2012
Quarter 1 2 3 4

Coordinated

30-Day readmission rates among 65+ years old in 2012. Clalit



Coordinated

Readmission Predictive Modeling

Clalit Research Institute:

- Demographic data
- Morbidity burden
- Clinical data
- Health services
- ACG indicators



Coordinated Preventive

Prevention: Healthy Lifestyles

Coordinated

Readmission reduction - Clalit

Readmissions among the elderly: 2012 vs 2010 by quarter

30-Day readmission rates
65+ years old
2012 vs 2010
By quarter

Annual Quarter	2010 Rate (%)	2012 Rate (%)
1	22.0	22.0
2	22.2	21.8
3	22.8	21.8
4	21.5	21.8

Coordinated Preventive Equitable

Decades of Work to Reduce Disparities in Health Care Produce Limited Success

Rebecca Voelker

With greater awareness directed toward the issue through such major reports as the Institute of Medicine's *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, published in 2003, the body of data on health care disparities is expanding. For example, a study...

OUTRAGED BUT NOT SURPRISED
The apparent lack of progress in reducing health care disparities is more than frustrating for many experts in the field.

Coordinated Preventive

Prevention: Healthy Lifestyles

MoH-led national program to combating obesity

- Coordinated 4 Ministries
- National & local resource pooling
- 5-year budget (>50 Million USD)
- Best-Practice Programs
- Cultural sub-group tailoring
- Monitoring and Evaluation
- Major legislative initiatives

The Ministries of Health, Education and Culture & Sport

Coordinated Preventive Equitable

Clalit: Disparity Reduction in chronic disease prevention & management

Intervention plan components:
bottom-up planning

- Culturally tailored interventions
- Outreach initiatives: proactive care
- Extending work hours
- Teamwork enhancement
- Engaging local community leaders
- Monitoring drug compliance

7 key disparity quality measures:
Narrowing the gap for 400,000 members

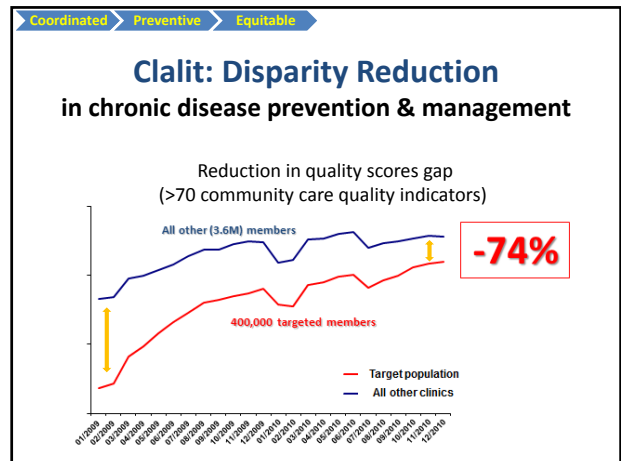
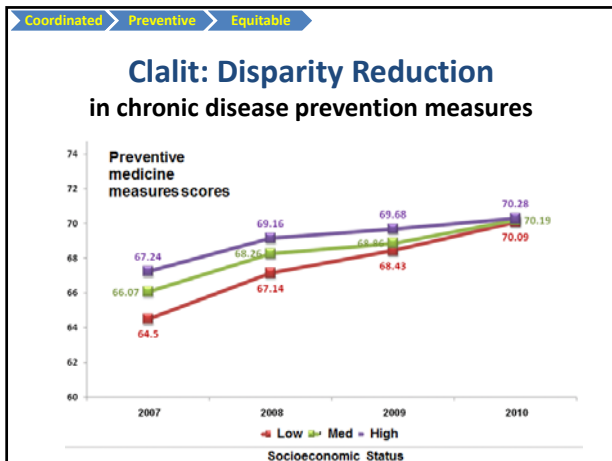
— Averages all other clinics
— Low 10% Disparity clinics

Coordinated Preventive Equitable

Clalit: Disparity Reduction in chronic disease prevention & management

- Diabetes control
- Blood pressure control
- Hyperlipidemia control
- Influenza immunization
- Mammography tests
- Fecal occult blood tests
- Anemia in infants

Composite Score → 55 lowest performing clinics



Coordinated Preventive Equitable proactive

Care for the 'pyramid tip'

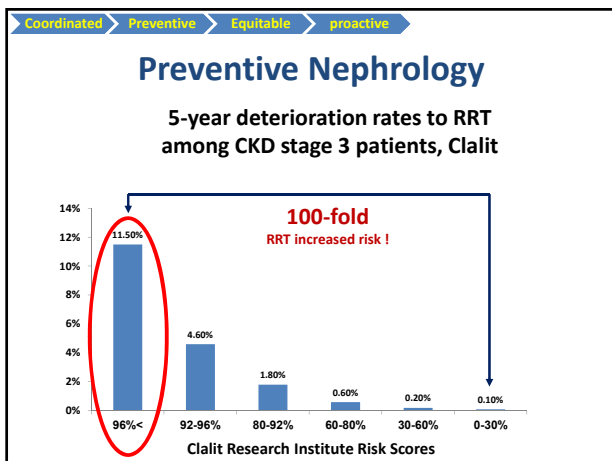
- Inspired by Chad Boulton's Guided Care model
 - Select multi-morbid High Risk patients
 - Balance impactability and predicted risk
 - Proactively assess overall patient needs
 - Create care plans for providers and patients
 - Providing self management and caregiver support
 - Coordinating transitions
 - Facilitating access to community resources

Coordinated Preventive Equitable proactive

Proactive Care for the chronically ill: The Clalit adapted model

Proactive care: Risk-based outreach interventions

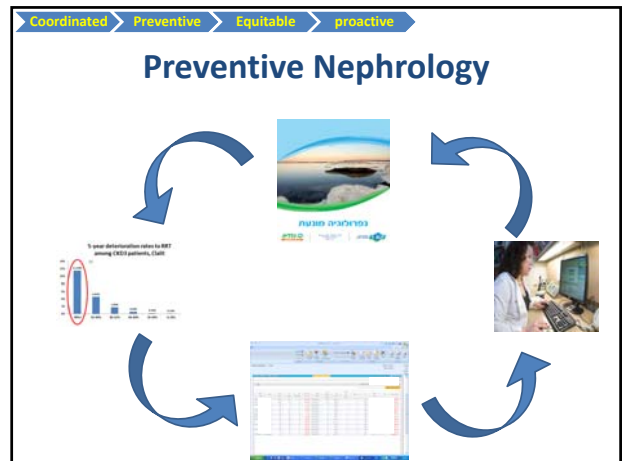
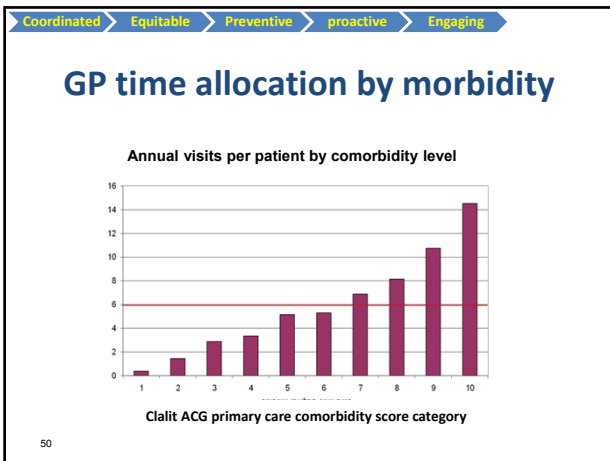
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Coordinated Preventive Equitable proactive

Care for the 'pyramid tip'

- One nurse per 100 complex patients
 - Enhanced training
 - New data/management IT tools
- Ongoing controlled trial
 - Assess effectiveness
 - Cost effectiveness / cost savings
 - Collaboration Clalit-Gertner



Foster innovative care models

- Encourage
- Match funding
- Measure effectiveness

High Tech ↔ High Touch



Towards patient-centered care

Measure:

Patient experience Patient-reported outcomes

~~Customer relations?~~
~~Service?~~

✓ Quality of care !

Value driven care

- Continuous real-life effectiveness assessment
 - Do less
 - Do the right thing for the right patient

Towards patient-centered care

Measure:

Patient experience



Patient-reported outcomes

- Engagement
- Compliance
- Appropriate care
- Satisfaction
- Value

Towards patient-centered care

Measure:

Patient experience

- Treatment pathway
 - Continuity of care
- Engagement, trust
 - Not just satisfaction

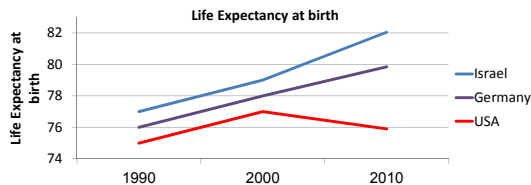
Patient-reported outcomes

- Illness specific
 - That matters to patients
- Standardized methods
 - i.e. PROMIS

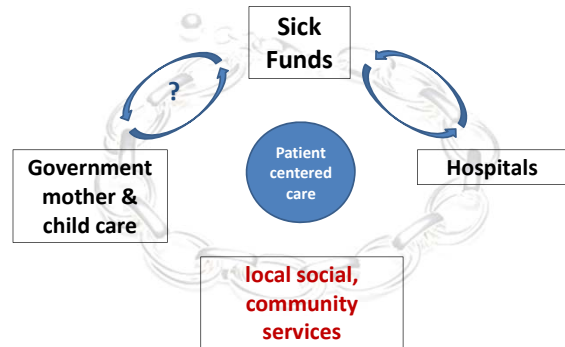
BLOOMBERG RANKINGS THE WORLD'S HEALTHIEST COUNTRIES

HEALTHIEST COUNTRIES 1 to 40

Rank	Country	Health Grade	Total Health Score	Health Risk Penalty
1	Singapore	89.48%	92.52%	3.07%
2	Italy	89.07	94.61	5.54
3	Australia	88.53	93.19	4.86
4	Switzerland	88.29	93.47	5.17
5	Japan	86.83	91.06	4.25
6	Israel	85.57	91.07	5.50
7	Spain	84.56	91.26	6.90
8	Netherlands	84.09	88.40	4.31
9	Sweden	83.90	89.37	5.47
10	Germany	83.58	88.81	5.23



Continuity of care



Do more !

"It is not enough to do your best;
you must know what to do,
and then do your best.

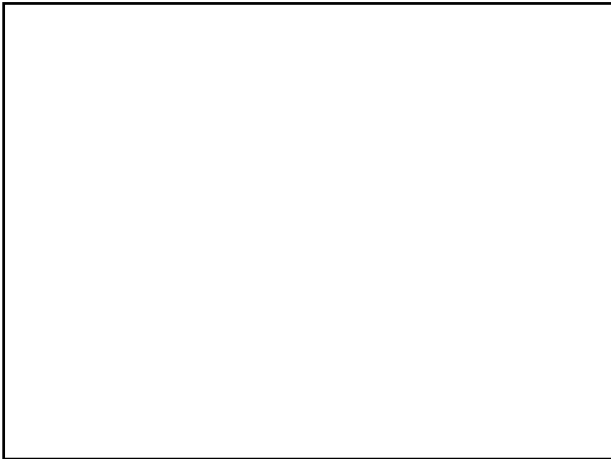
W. Edwards Demming



To meet the challenges ahead ...(plus more)

- Data driven policy
 - Maximize data streamlining and use
- Build on infrastructure strengths
 - Improve in areas of fragmentation
- Develop innovative approaches
 - Patient-centered care & measures
 - Proactive self-care support





!Thank you

“It is not enough to do your best;
you must know what to do,
and then do your best.

W. Edwards Demming



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