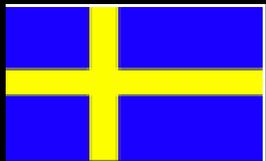


Using research and innovation to reduce stroke and heart attack in San Diego – next steps

This PPT and other resources from

<http://public.me.com/johnovr>

or <https://www.idrive.com> - see references at end of PPT



John Øvretveit,

Director of Research, Professor of Health Innovation and
Evaluation, Karolinska Institutet, Stockholm, Sweden



2012-2015

Purpose:

..what will help and hinder my service

...and San Diego

...to reduce avoidable heart attack and stroke?

Our structure, strategy, motivation and
business case

Why?

- UBP and initiatives successful – but what next?
- Can we be more effective?

Outcomes

1. Ideas from research & innovation literature and Stockholm health care
 - the lives and costs we can save
 - behaviour change - to providers, patients and organisational change
2. Weigh benefits of services' parallel strategies vs a more coordinated approach
3. Recommendations for feasible steps forward - “win-win” steps

5 Themes

1. Modifiable **causes** of heart attack/stroke
2. Effective **interventions** and actions (depend on context)
3. **Targeting** most able to benefit & market segments
4. ROI & **business case** for different parties
5. **Coordinating** clinical care, and strategies
 - building on local “social capital” - networks

High level purpose: Lowest stroke and heart attack in USA

Aims:

- cardiovascular bundle for at risk populations (secondary and tertiary prevention)
- healthy lifestyle? (Primary prevention)

Actions – 21st century health service does this - proactive

- Interventions to providers to enhance prescribing
- Interventions to patients and communities to enable adherence
- Further “upstream” actions: lifestyle – delivery of classes, media campaigns
- Coordination: with others, to help people not covered

John's contribution: research & independent view

Part 1 Causes and solutions & 7 steps

Part 2 Why multi-intervention, multi-level coordinated approach most effective

- How far can we move towards this?
- Do we have an "alignment detective" "cat herder"
 - Gains and losses from collective approach – bis case for stakeholders over 1-5yrs.

Part 3 Groups – what can we use/do next? (end July funding 2012)

Research alert: Legal disclaimer

Research showing efficacy, is not evidence of effectiveness in your setting

The researchers do not accept responsibility for interventions used in other settings

- Research pays for and ensures implementation
- Patients carefully selected
- Time & finance constraints
- Implementation fidelity vs fit



Research gives little guidance

for you to assess if intervention implementable and get similar results in your setting, with your personnel, patients and popul

Ideas and research which can help - the 7 actions

1 Identification

2 Activation

3 Access

4 Enabling providers

5 Enabling patients

6 Empowering communities

7 Provider coordination and collaboration

...and use Implementation research – effective strategies

Identify those most able to benefit from our help

- In those we cover, & wider
 - may use our services & unreimbursed

Why now?

Hands up if you think this will happen?

1. Item- to global- **payments** for value, and **no-pay** for emergency and readmissions
2. ST prevention and coordination – direct and indirect pay-back
3. Use more innovations – some from other industries
4. Use health data – individual data liquidity and population health
 - hot spots mapping – story

Will these changes influence what you do?

Geographical

“hot spots”

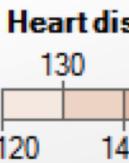
<http://communityclash.meyou.com>

Community Clash,

Estimating the Size of the Urban
Populations in a Local Area

By Lynn A. Blewett, Ph.D.

<http://archive.ahrq.gov/data/s>



Identification – Using data collected from patients

Targeted case finding for cardiovascular prevention Chamnan 2010

UK regional study

- collected data for all 40-74: health questionnaires & blood pressure & non-fasting blood samples

- Study aim was to assess benefit of pre-stratifying people using these “routine data” before inviting for more expensive vascular risk assessment

Note: **separate to this** – the UK national vascular risk screening programme

- All adults aged 40-74 invited to PHC health check, (blood pressure, blood tests, and cardiovascular risk assessment)
- **identify 20% of the population at highest risk** can prevent **50%** more cardiovascular disease;

Summary - Identification

Of those **most in need & highest users**, now & future

Don't know and not reaching?

Will cost you in the future?

1 Use data for “Hot spot geo-mapping”

2 Use “Community intelligence teams” to supplement data rapid appraisal methods to find out from community leaders, providers, and others those most at risk and services they will use.

3 Use **patient data** you already have, to target actions

Question: Who collects these data and presents it to providers/managers in actionable format? Would a shared project or unit to do this make sense?

2 Activating citizens, patients and providers to protect or treat

Behavioural sciences show

- Will-power does not work for us civilians

Russian 1980s plot: Design a country to increase heart disease and diabetes – use freedom & consumerism to defeat them!

- Maximise pleasure from disease-inducing food
- Make it easily available & more so than other foods
- Provide triggers to increase desire (ideally in pathway of everyday life (advertising, vending, drive in))
- Reduce opportunities for movement

MAT formula:

- Motivation + Ability + Triggers (in pathway) =  **change**

More about environment than will power

- Continual triggers (reminders)
- Rewards
 - Absence of heart attack and diabetes not a motivator
 - Goal achievement – satisfaction – feedback on intermediate
- Social support
 - AA, WW,
- Physical
 - **Healthy option the easier, lower-cost choice** (cycling, paths)
- **Mobile HIT using these principles** – phone texting, access to support, reminders, diary – self-monitoring

2 Activation: motivating citizens, patients and providers to protect or treat

Hands up for “Yes”

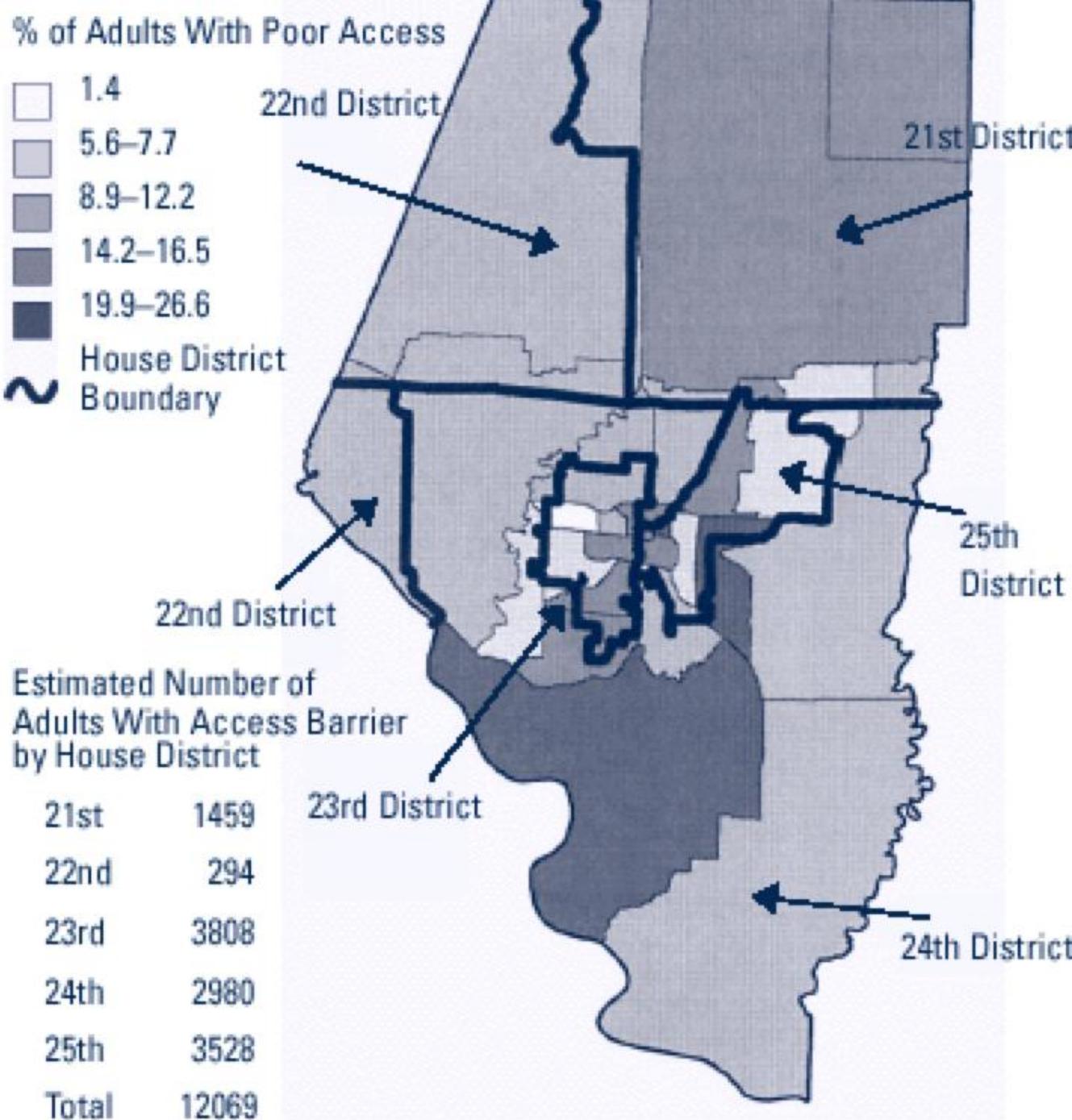
- Is the “Live Well San Diego” plan working?
- Is the “Be There San Diego” media campaign working?
 - Seeking prevention, adhering to changes?
- Our organisation is leveraging this free resource?

1

5

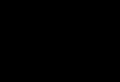
3 Access: to visits

- Office visits
 - Effective interventions programmes
 - pursuing perfection: Learning project teams
 - Advanced access: triage project)
 - PCMH projects (VHA)
- Patient portals for info
- Bypass or alternative groups
- Data on access: <http://www.vha.gov>
Monitoring the Health Care



4 Enabling providers:

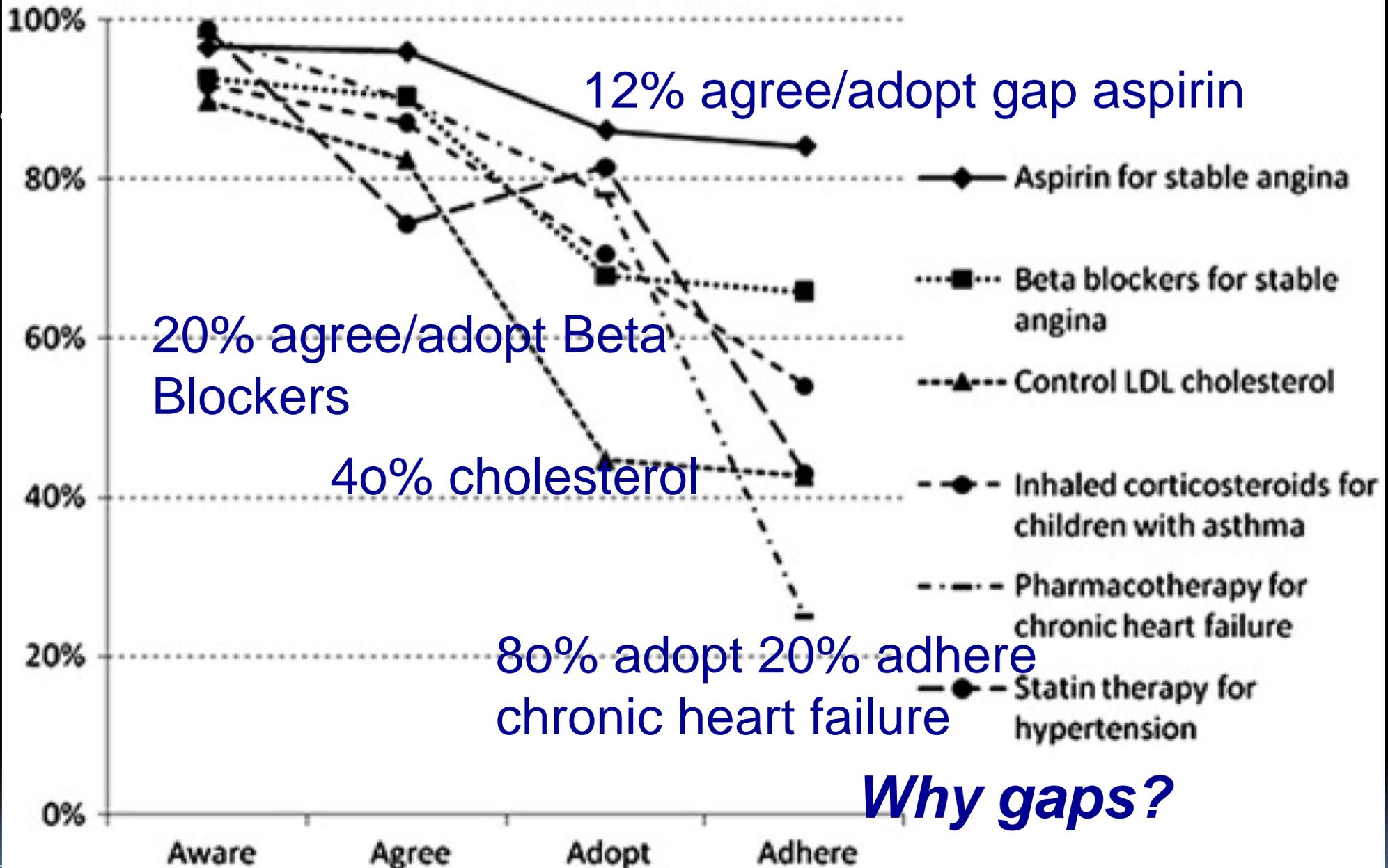
- to make more use of effective interventions



Example 1 Using clinical practice guideline recommendations (vaccination paediatrics)

- 1. Awareness
- 2. Agreement
- 3. Adoption
 - decide to follow guidelines for some patients
- 4. Adherence
 - Follow guidelines at appropriate times for all patients
- *Would concepts apply to patient's treatment adherence?*
- For **aspirin for stable angina** - would you get **over 80% physician appropriate prescribing?** (adhere)
- for **drug therapy for chronic heart failure** would you get over 80% physician appropriate prescribing? (adhere)

From guidelines to patient benefit: "leakage"



“Implementation” defined broadly

	% patients impacted, who may benefit
Steps in implementation pathway: intermediate outcomes	
50% of services decide to adopt	50%
50% of clinicians in this service prescribe appropriately (accept, adopt)	25%
50% patients collect prescription and start	12.5%
50% adhere correctly	6.2%
50% actually benefit	3.2%
After 6 months adhere and benefit	1.6%

After 2 years?

Likely impact on stroke and heart attack?

(Based on Glasgow 2010)

Effective interventions to change providers behaviour (prescribing)

Ideally, combination:

- Respected local clinician recommendation
 - (Finnish Rhoto GP facilitator network)
- Quality education, ideally personal academic detailing
- 1 page guideline,
- Pop-up in EMR (especially re contra-indicated or generic)
- Prescribing performance feedback
 - (scripts complying with guidelines, scripts filled by pharmacist)
- Financial incentives

2

1

Principle: motivation, ability, triggers, rewards

Change providers behaviour

Emerging **science of co-morbidities**

- Common: heart disease & diabetes
 - Plus depression (esp. older)
- Treat separately or together?
- Assess for depression and manage
 - Affects treatment adherence
 - Low cost telephone assessment and alerts (USC study)

2

2

“Personalised guidelines”

<http://archimedesmodel.com/how-indigo-works>

person-specific risk of adverse events

(such as heart attack, stroke, diabetes onset and its complications)

predicted health impact of interventions,
medications and lifestyle changes

2

3

Provider care organisation changes

- **Projects use proven strategies:** Targets, barriers, strategies, peer facilitators and prescribing and filled scripts data
- **Non-physician roles and organisation changes:** new roles and outreach.
- **Case management for most at risk,** specialist nurses, health coaches, group medical appointments.
- **Teamwork, new skills, more use IT** to support and new applications.

5 Effective interventions to enable **patient adherence to medications**



General “Homer Simpson” principle: if not in pain, then the meds must have fixed it! No need for meds.

Haynes 2008 Cochrane review

- Simplify dosing, Calendar blister packs, reminders,
- Also: Smart pill boxes

See SDRC UBC Presentation Feb 2012 **Elizabeth Oyekan**

- **The B-SMART Medication Adherence Checklist:2**
Making it easier to do the right thing

5 Enabling patients: to start and sustain treatments and lifestyle changes

- Captive receptive audience – day after CABG
- Out of sight out of mind
 - The less the pain, the less the effort
- Again - Motivation, Ability, Triggers in daily pathway, rewards – feedback and congrats – social
- Different social groups need different supports

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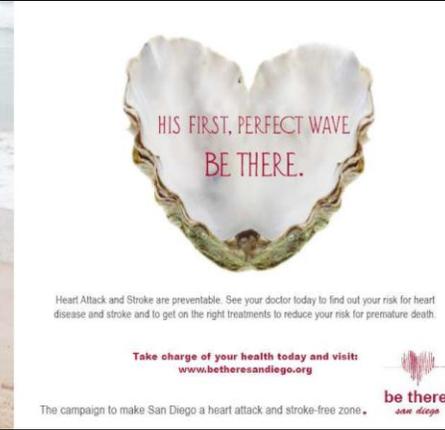


**"All we eat is fish. Fish has no fiber.
We're all constipated. That's why we walk funny!"**

6 Empowering communities

- **Knowledge, Will, Capability** (Skills and resources)
- Which communities most in need and potentially capable (organised)?

- Geographic – community associations
- Faith based
- Ethnic (networks)



- What can you do (your service and together) to
 - Provide knowledge/educate
 - Build will and Capability
 - What are they asking you for?
 - What examples from elsewhere (eg East LA food and lifestyle project)

2
7

Examples of community based interventions for which there is some evidence of effectiveness

- Flinit & Hill study of “silver sneakers” fitness programme, Medica Az.
 - lower inpatient hospital, needs for skilled nursing, and home health costs.
 - 11% savings overall
 - More frequent 2 times/month – 1000\$ yr. savings
- Review - nine studies ([Community Preventive Services Task Force recommends:](#)
- **social support interventions** in community settings effective for promoting physical activity
- create new **social networks** or work with existing networks in a social setting eg workplace. (Zaza et al 2005)
- **CDC – resources**

2

8

Points

- Not one cause, in different sub groups,
- Not one solution – combine ALL with other,

Hands up for Yes”

We know which contexts most affect provider and patient behaviour?

We are intervening on these to make the right actions the “easy default”

2

9

7 Provider coordination and collaboration

- Evidence of effective ingredients for organisational collaborations of this type
- *Guess what characterises effective collaborations between services/systems like yours?*
- *What is needed for you and others to work together to reduce HA/Stroke?*

Which of these do you have, which need more of...

- (combination of Shortell, et al 200; Zakocs & Edwards 2006))

3
0

Ability to

- **manage size and diversity**
 - different membership roles, decision-makers, work groups & goals
- attract and rely on **multiple leaders** and leading approaches
 - Leaders from targetted communities
- maintain **focus**
 - One contact person each organisation, limited no.goals, paid support staff
- manage and channel **conflicts**
 - Early identification, and conflict process, open expression and channels
- recognize **life cycles and “hand on the baton”**
 - new members induction,
- **Secure and reposition assets for changing needs**
 - Collectively seek extra resources

3

1

How will you...For group discussions...

- Share better practices in chronic disease care ?
- Spread - needs structure, systems, steps/actions

CHCF **spread Lessons** from the California Improvement Network

Establish a Strategy for Spread

- “What, to Whom, by When” Comparisons Matter

Create an Effective Social System for Spread

- Leadership at All Levels - Coaching Is Key

Establish Measurement and Feedback Systems

- Measuring Spread Itself
- Mid-Course Corrections
- Feedback, & Learning from Others

3

2

Are we using the resources we have available?

- Beacon ICT project
- Clinical registries
 - See 1 Lewis high risk admissions target £ uk ; 2 how Sweden transforms their quality registers into patient activation programmes: P2I
- Opinion leaders – peer facilitation
- Research on what works
- Implementation infrastructure – Collective? Own systems?

3

3

Final items which can help: Implementation research & budget impact analysis

- 1 Business case budget impact/ROI assessment
- 2 John's model of spread of proven improvements (theory to explain spread/non-spread)
- 3 Two studies – reviews of research with practical implications for you:
 - Large system transformation in health care systems
 - Implementation and spread of multilevel interventions
- 4 HERT spread tool – incorporates research

3

4

Financing Issues – will a coordinated preventative strategy pay-back for our business?

- Athena health maternity care model
 - Pregnant mother: assign a midwife, a nutritionist, and a case manager
- Cost higher, BUT reduces complications and costs later by 20%.
- “Please pay a global fee, not for each item of service”

What did they say?

- “We agree with the five-year study that shows this model will work, but we can't rewire our systems to pay you differently from everyone else”
- Same for reimbursement for home monitoring: 30-60 days post-hospitalization.

3

5

Research on the business case for individual, and collective strategies

- Current **financing penalises** investments and prevention
- Organise for **new financing** models
 - Readmission and quality indicators – value not volume
 - Population based financing – provider/system paid to reduce avoidable utilisation (ACO or capitation)
 - Patient centred medical home
- Implications
 - Investments to reduce readmission and utilisation can pay off- but **choose proven cost effective ones and manage budget impact** 3
 - DETAILS – Ovretveit “leading value improvement” research and reviews 6

Value improvements – invest in interventions which save money and improve quality

Examples

1) **Discharge and follow up** models for heart failure and care transitions interventions

- Proven Care Transitions Intervention (Coleman); Transitional Care Model* (Naylor); Project BOOST (Society of Hospital Medicine)
- Others being tested – see references

2) **Lay-led chronic care** education and support groups

- (based on Stanford Lorig et al 2009) model

3

7

Elements in spread of “proven seed”

Seed



Gardener/planting & nurture



Climate / soil



Product

Push >

<< Pull

Bridging the P1 // P2 chasm

- Product

- Features of the new better intervention
- Comes with credible evidence of effectiveness

- Push

- Marketing and support

- Pull

- Services experience a problem this can solve
- It fits with values and “makes sense”
- Services are capable of adopting and sustaining it -resources

Bridging the P1 // P2 chasm

It has to be local because

- 10% of success is **local personalities**
- 20% of success is using a **change proven** elsewhere to improve quality and reduce costs
- 30% is **your implementation** (do you have skills, project team capacity, experience?)
- 40% is nothing to do with you -
whether your **context enables** implementation and rewards value improvements



4
0

Large system transformation in health care systems

- **Leadership**: top-down, distributed and “engagement” of personnel at all levels
- **Measurement and reporting**: short and long-term goals
- Consideration of **historical context**
 - help avoid unnecessary pitfalls, and increase buy-in from stakeholders
- Significant **physician engagement** in the change process
- Those aiming to increase patient-centredness require significant **engagement of patients and families** in the change process
- Details – in Best et al 2011

4

1

- **Small team projects** that demonstrate success and can be scaled up to larger system change

(Brown & Duthe, 2009; Caldwell, Chatman, O'Reilly, Ormiston, & Lapiz, 2008; Harrison & Kimani, 2009; Lukas, et al., 2007; McGrath, et al., 2008)

Importance of learning from local history of successful and unsuccessful changes like this one

What do we learn here?

Are we finding and spreading successful projects⁴?

Review of research: spread of multilevel interventions

- **Phased implementation,**
 - pilot testing, engagement stakeholders within and between each intervention level;
- Strategies for long-term monitoring and sustainability.
- Visible and consistent **leadership** and organizational support,
 - including financial and human resources;
- Understanding of the **context** & changes
 - policy fiscal climate, and incentives underlying implementation;
- Handoffs from researchers to accountable individuals within and across levels;
- Integration of multilevel theories
 - guiding implementation and evaluation;

HRET Spread Assessment Tool (research based)

Select the number that best reflects the perception of the average health care leader about the innovation you are seeking to spread.

Environmental Factors:

					Item Score	
1. The innovation will:	Make/save lots of money	Make/save some money	Have no financial impact	Cost/lose some money	Cost/lose lots of money	_____
	5	4	3	2	1	
2. The innovation will:	Greatly reduce legal risks	Slightly reduce legal risks	No effect on legal risks	Slightly raise legal risks	Greatly raise legal risks	_____
	5	4	3	2	1	
3. The innovation will:	Help meet current regulation	Prepare for future regulation	Is unrelated to any known regulation	May have regulatory risks	Will cause regulatory risks	_____
	5	4	3	2	1	4

Sections of HRET Spread Assessment Tool

- **Environmental** Factors
- **Innovation** Factors
- **Target Audience** Factors
- **Organizational** Factors

Spread Readiness Scale:

- *101-125 Organic, Natural Spread*
- *76-100 Promising Spread Initiative*
- *51 – 75 Challenging Spread Initiative*
- *<50 Doomed, Focus on Underlying Issues*

Summary - Theme 1

- The people covered by your system/group
 - how many **at risk of a preventable** heart attack or stroke?
 - 1 already; 2 symptomatic; 3 risk factors?
 - What % reaching with bundle and other interventions
- Theme 1
 - We can be more effective in treating & supporting tertiary, secondary and primary prevention

Theme 2: lowest stroke and heart attack in USA

Wider 1.3 m population:

- how many at risk of a preventable heart attack or stroke?
 - undocumented, uninsured, high co-pays, access?
 - more or less able to benefit from interventions: meds, support, lifestyle, community prevention?
- If no action – avoidable suffering?
- Likelihood of use of your services, and unreimbursed?

Point 2

Those most likely to benefit (and most costly)

not getting meds or other interventions

4

7

Theme 3: coordinated strategy

- Ideally: Coordinated multi-level, multi-intervention strategy
 - Each system's patients and population
 - Multiple causes, multiple interventions
 - Prevention and rescue

Theme 3: - Not feasible,

...but could we align different actions targeting different levels and populations more effectively?^{4?}

If you can't – who can?

- Lowest US stroke and heart attack is achievable
 - Effective interventions with **your providers and covered populations** (also save money)
- Coordinated multi-interventions with uncovered most at risk
 - Greatest impact – also on costs (ER/admissions)
- With ACA and changes in data and funding- now is the time to cooperate

Your success

- Give back to the children of SD their fathers mothers and grandparents



- You have the resources and knowledge – do you have the will and ability to cooperate?

Your magnificent seven

1 Identification

2 Activation

3 Access

4 Enabling providers

5 Enabling patients

6 Empowering communities

7 Provider coordination and collaboration



Questions:

1. Which of the ideas presented are we doing/could do better?
2. What are the losses and gains of a collective approach?
 1. (minimal \leftrightarrow extensive collaboration)
3. Which structures and strategy will exist in 2013 for advancing collective action ?
 1. and what is missing?
4. Our recommendations....

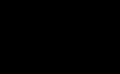
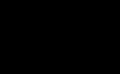
John available all Tuesday for presentations or discussions, courtesy of UBP

Conclusions

Each person write down and then share in the group:

1. These were the main points...
2. This was new or surprising, for me...
3. The most useful idea for my work was...
4. What I would like to find out more about...

Resources



5

4

Resources on Johns web site folder

- <http://public.me.com/johnovr>
- Or or <https://www.idrive.com> - see references at end of PPT

Download files from idrive by going to web site:

[http://www.idrive.com/;](http://www.idrive.com/)

- Log in user = jovr pass= anna. THEN use the search field on the right to enter in a word realated to the subject. You will see files on this subject – click on the file you want to download, after entering anna and it will download to your computer.

5

5

Care Transitions models

- Care Transitions Interventions* (Coleman)
- Transitional Care Model* (Naylor)
- Project BOOST* (Society of Hospital Medicine)
- Project RED/AHRQ*
- Bridge Program* (Illinois Transitional Care Consortium)
- Guided Care*(Johns Hopkins)
- Geriatric Resources for Assessment and Care of Elders* (GRACE)
- Care Coordination Model (IHI Triple Aim Initiative)
- Primary Care Medical Home (TJC,NCQA and AAHC)
- STAAR Initiative (IHI led)

5

6

National Transitions of Care Coalition home page, <http://www.ntcc.org>



Websites/resources for Care Transitions models

- The Coleman model for teaching patients self-advocacy:

www.caretransitions.org

- The Naylor model for providing nursing support: www.transitionalcare.info

- Project RED (Re-Engineered Discharge) using computer support:

www.bu.edu/fammed/projectred/

- Project BOOST, a hospitalist initiative: www.innovations.ahrq.gov

- STate Action on Avoidable Rehospitalizations (STAAR), working at a state level:

www.ihl.org/IHI/Programs/StrategicInitiatives/STateActiononAvoidableRehospitalizationsSTAAR.htm

- Hospital to Home (H2H), focused on cardiovascular conditions:

www.h2hquality.org

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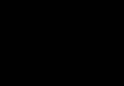
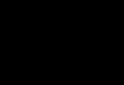
References.



References.



DETAILS



6

1

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