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NIHR CLAHRC for Northwest London

Collaborations for Leadership in Applied Health Research and Care

November 2009

Derek Bell

Imperial College London

in partnership with Northwest London

Chelsea and Westminster Hospital NHS
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Today

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- Interactive!
- Background to CLAHRC
  - Accelerating research into better care
- Our aims and approach
- CLAHRC
  - Progress to date
- Partnership Opportunities

Background to CLAHRC bids

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- Closing the second translational gap - Cooksey Report
- Evidence Based-Medicine should be supported by Evidence Based Implementation – High Level Group for Clinical Effectiveness

- 9 CLAHRCs awarded - all have different approaches
- £84 Million over 5 years

- Partnerships between NHS and University
  - Broad partnership
  - Spans the Comprehensive Local Research Network (regional)

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Closing the translational gap
Some of the issues

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- Randomised control trials and evidence based medicine
- Research versus improvement methods and delivery
- We do it already and we do it well
  - But
- Culture and behaviours
- 'Busyness' index

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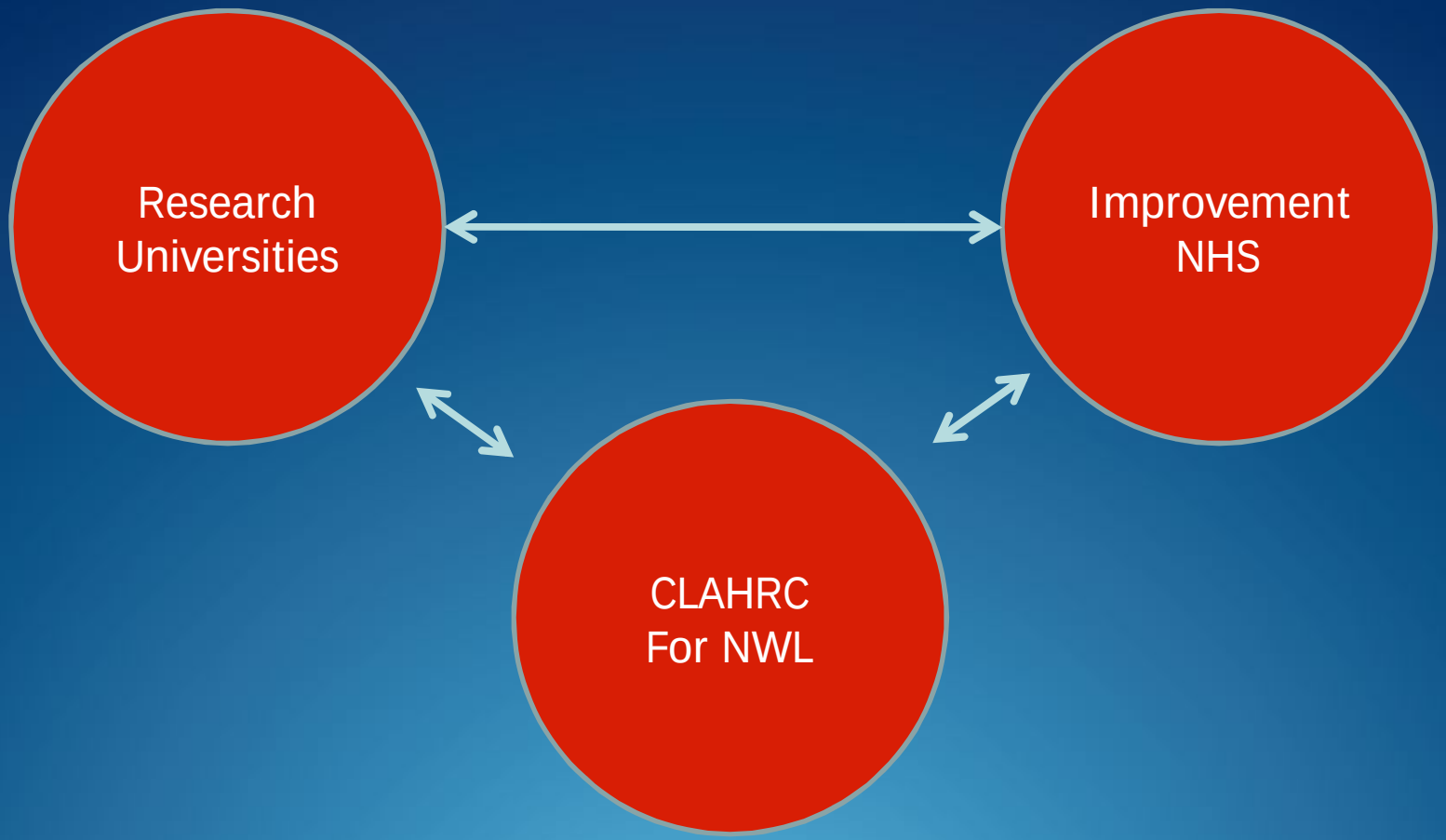

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Developing synergies

To close the 2nd translational gap

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- Collaborative Methodology
- Improvement methodology
- Research Methodology

Industrial Quality Standards

Cultural Viewpoints

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- Understanding Endpoints
  - Research — Creation of Evidence
  - Improvement — System / Process improvement
  - Industry — 'Controlled' process
    - » Understanding of Variation
    - » Evidence Based
    - » Sustainability
  - NHS — Patient care

CLAHRC for Northwest London…

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- Synergy between research, improvement and service delivery
  - Integration of Approaches
  - Involving academics – breadth of disciplines
  - Evidence Based Implementation
- Innovation and Knowledge Mobilisation
- Patient Focused
- Valuing staff – Capacity Building
- Collaborative (working towards a whole system approach)

Integrating knowledge and expertise

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Treatise of the scurvy

James Lind 1753

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have them. They all in general had putrid gums, the ſpots and laſſitude, with weakneſs of their knees. They lay together in one place, being a proper apartment for the ſick in the fore-hold; and had one diet common to all, *viz.* water-gruel ſweetened with ſugar in the morning; freſh mutton-broth often times for dinner; at other times puddings, boiled biſcuit with ſugar, *&c.*; and for ſupper, barley and raiſins, rice and currants, ſago and wine, or the like. Two of theſe were ordered each a quart of cyder a-day. Two others took twenty-five gutts of *elixir vitriol* three times a-day, upon an empty ſtomach; uſing a gargle ſtrongly acidulated with it for their mouths. Two others took two ſpoonfuls of vinegar three times a-day, upon an empty ſtomach; having their gruels and their other food well acidulated with it, as alſo the gargle for their mouth. Two of the worſt patients, with the tendons in the ham rigid, (a ſymptom none of the reſt had), were put under a courſe of ſea-water. Of this they drank half a pint every day, and ſometimes more or leſs as it operated, by way of gentle phyſic. Two others had each two oranges and one lemon given them every day. Theſe they eat with greedineſs,

dineſs, at different times, upon an empty ſtomach. They continued but ſix days under this courſe, having conſumed the quantity that could be ſpared. The two remaining patients, took the bigneſs of a nutmeg three times a-day, of an electuary recommended by an hoſpital-ſurgeon, made of garlic, muſtard-ſeed, *rad. raphan.* balſam of *Peru*, and gum myrrh; uſing for common drink, barley-water well acidulated with tamarinds; by a decoction of which, with the addition of *cremor tartar*, they were gently purged three or four times during the courſe.

The conſequence was, that the moſt ſudden and viſible good effects were perceived from the uſe of the oranges and lemons; one of thoſe who had taken them, being at the end of ſix days fit for duty. The ſpots were not indeed at that time quite off his body, nor his gums found; but without any other medicine, than a gargariſm of *elixir vitriol*, he became quite healthy before we came into *Plymouth*, which was on the 16th of *June*. The other was the beſt recovered of any in his condition; and being now deemed pretty well, was appointed nurſe to the reſt of the ſick.

Scurvy

Lack of Vitamin C

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- Described by Hippocrates
  - Bleeding gums, general bleeding and death

- 1601
  - 4 ships – 3 developed scurvy
  - Captain Lancaster prescribed lemon juice
  - Report sent to Admiralty
- 1636 John Woodal – father of 'naval hygiene'
  - Fresh vegetables , lemons and oranges
- 1747 – James Lind – controlled trial
- Scurvy continued to claim 5000 lives /year
- 1795 – lemon juice mandated by Admiralty

195 years

The data said…

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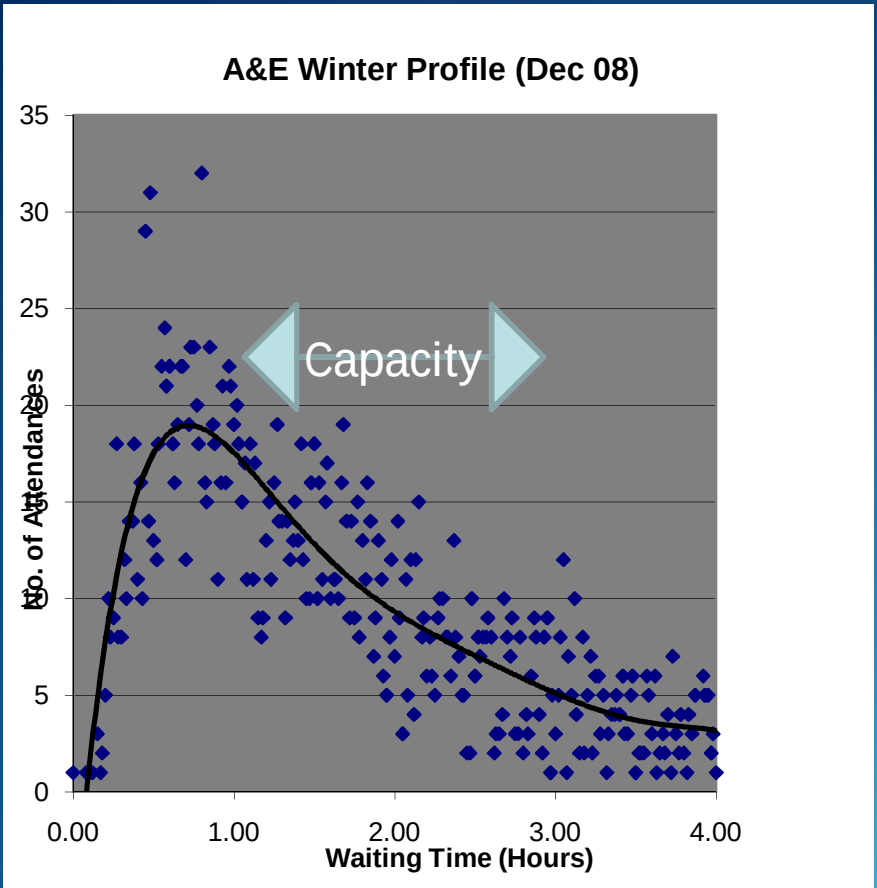
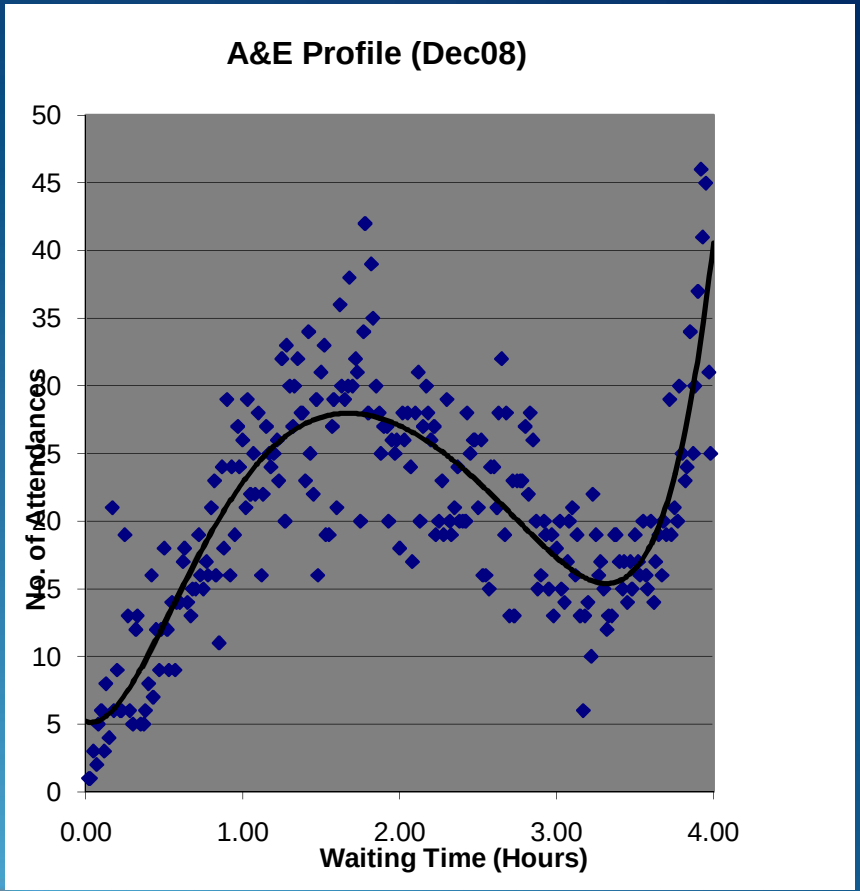
Buffered – sustainable



No buffer – not sustainable



Are we doing it anyway ?

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- Patients admitted with CAP to 2 hospitals in showed significant gaps in the quality of care

- 204 patients coded with pneumonia
- 46 patients randomly selected and notes reviewed (2007):
  - CXR performed: 52%
  - O2 Sat monitored & O2 appropriately prescribed: 100%
  - CURB65 documented: 9%
  - Antibiotic within 4h: 15%
  - Appropriate management: n/a
    - IV antibiotic in most patients

Antibiotics within 4 hours

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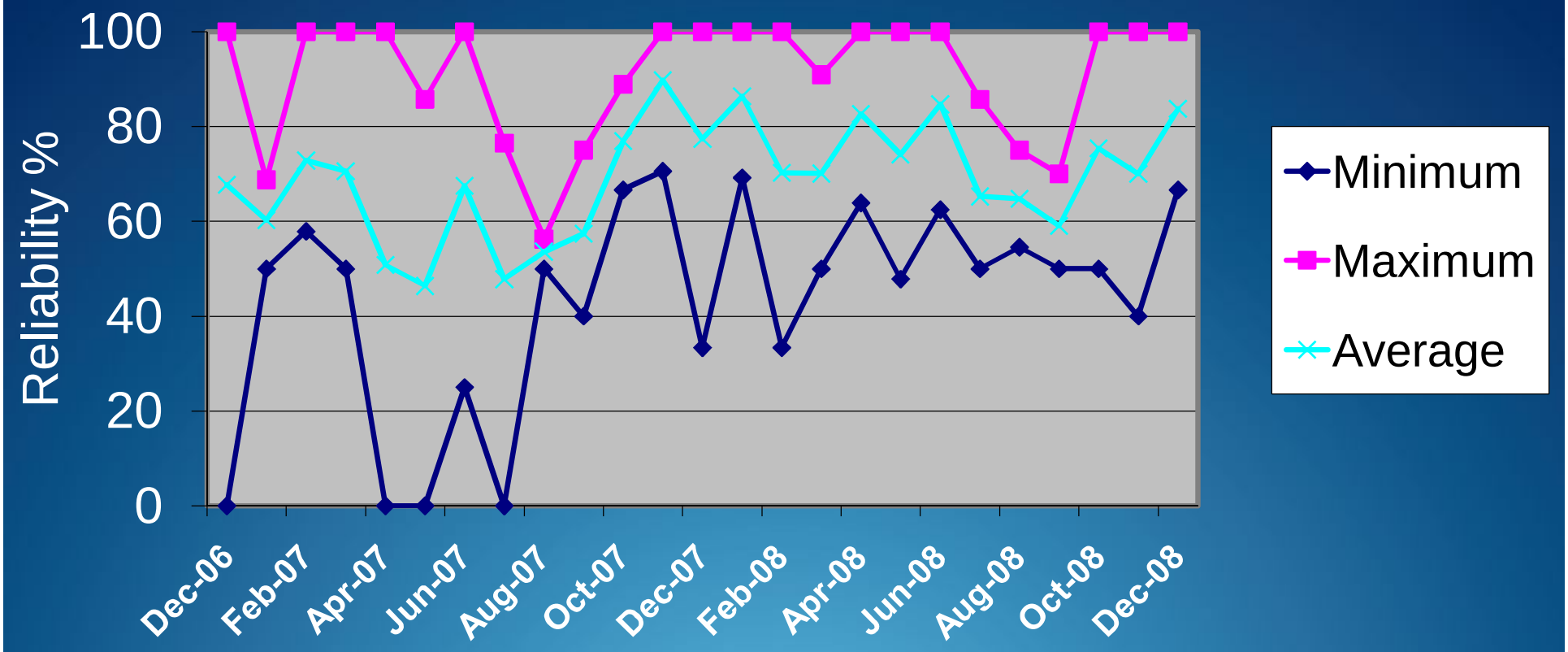

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Closing the second translational gap

Complicated – Easy

Simple – Hard

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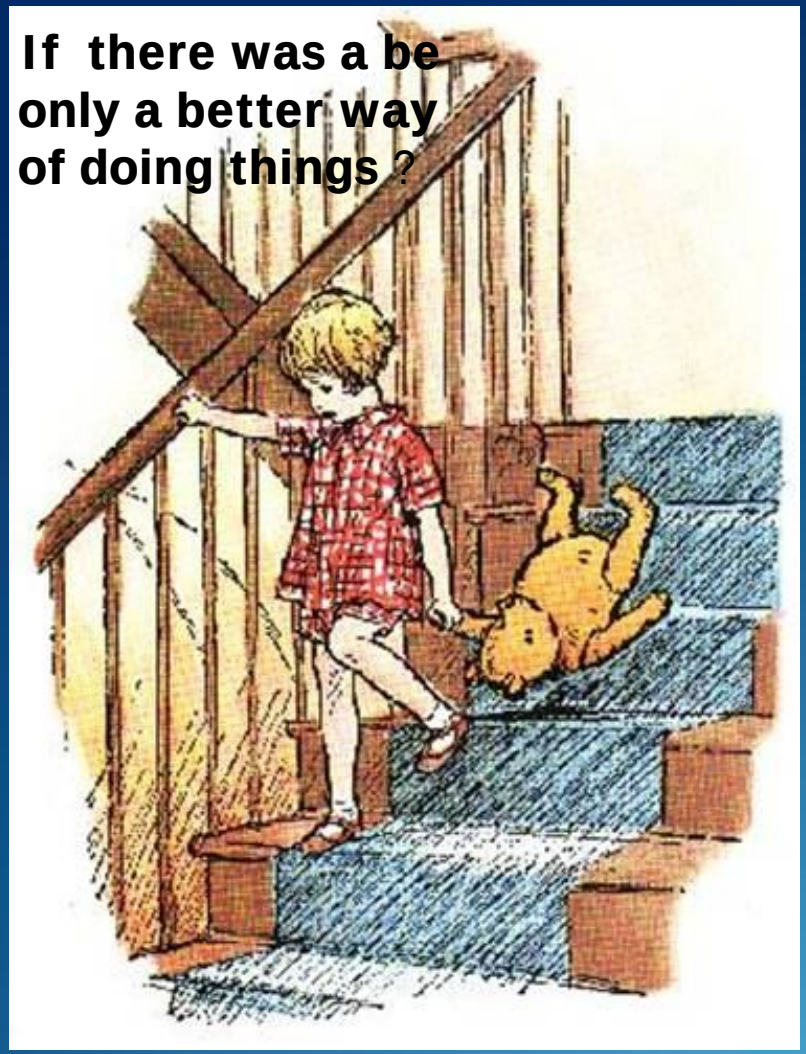

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'Here is Edward Bear, coming downstairs now, bump, bump, bump, on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there really is another way, if only he could stop bumping for a moment and think of it.'

Change... Is not that simple

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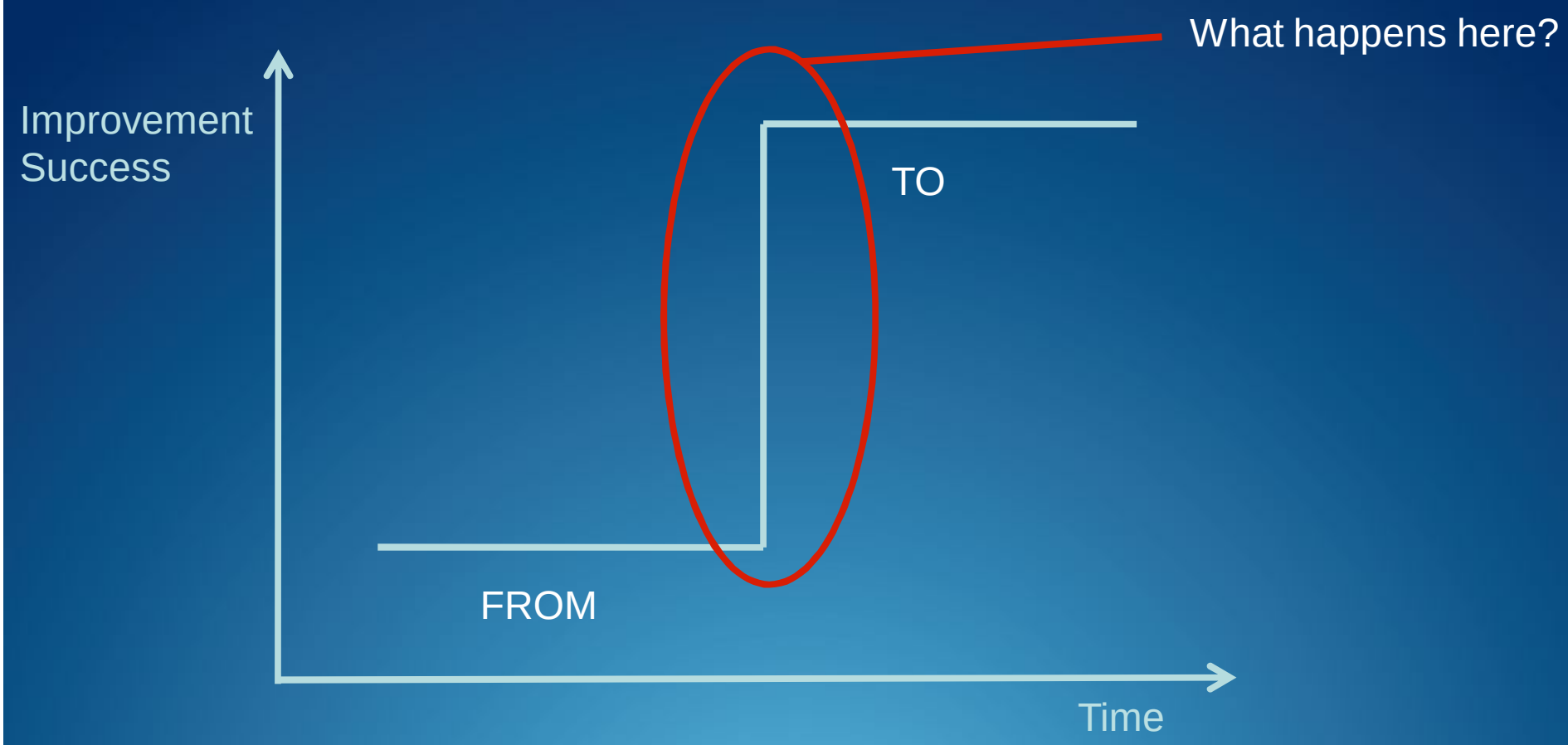

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Change – Chemistry/Cooking

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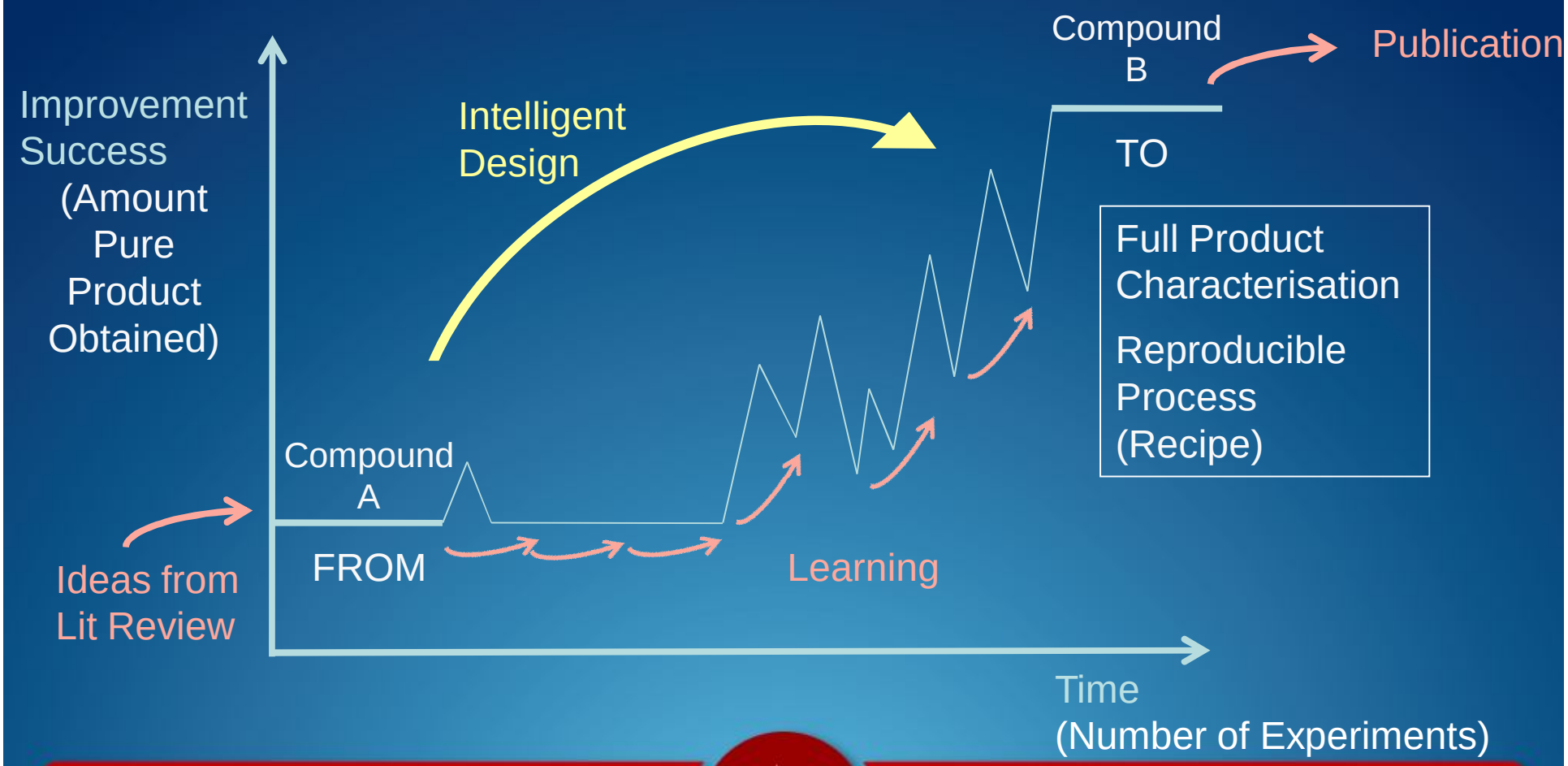

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Lessons for Healthcare Change

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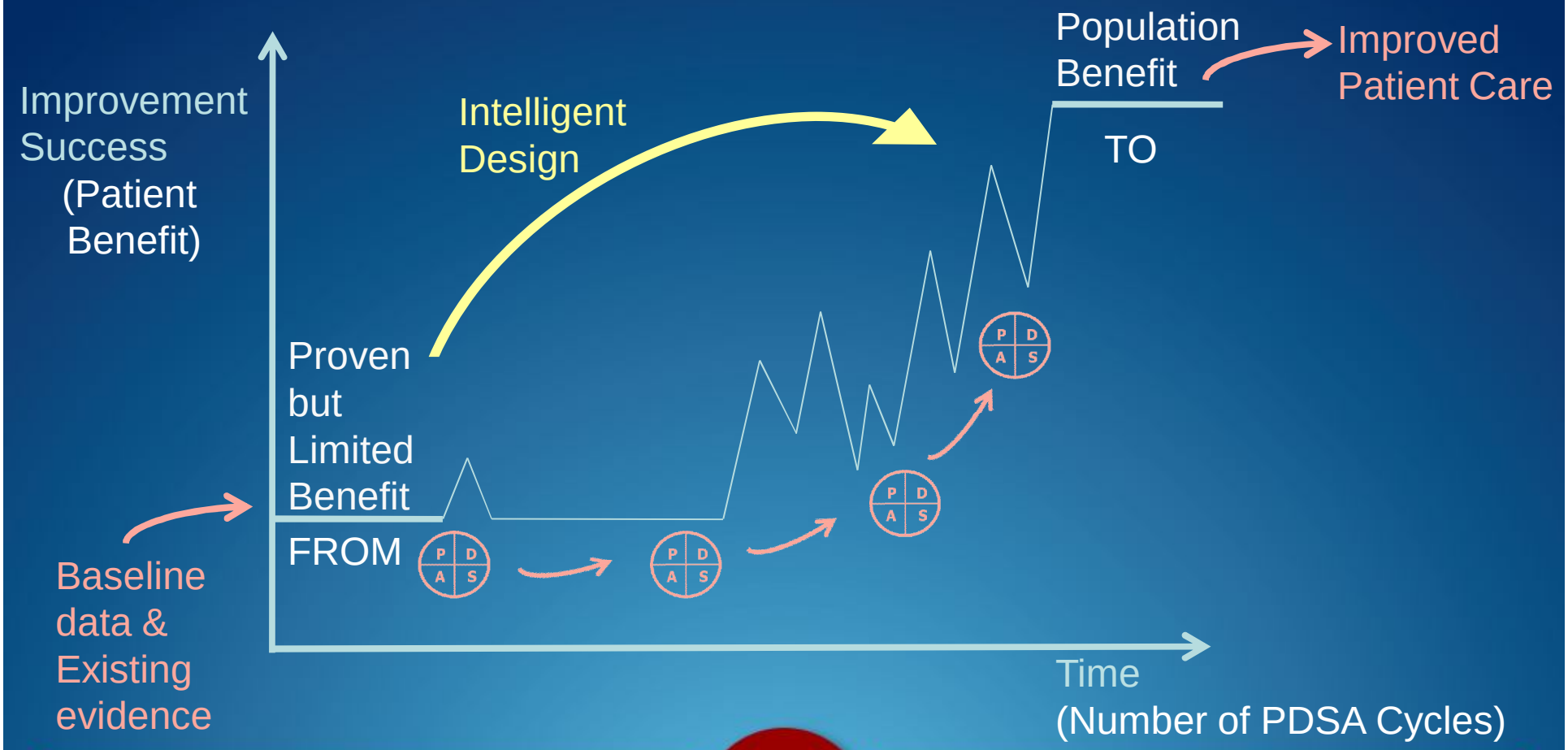

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How is this going to work?

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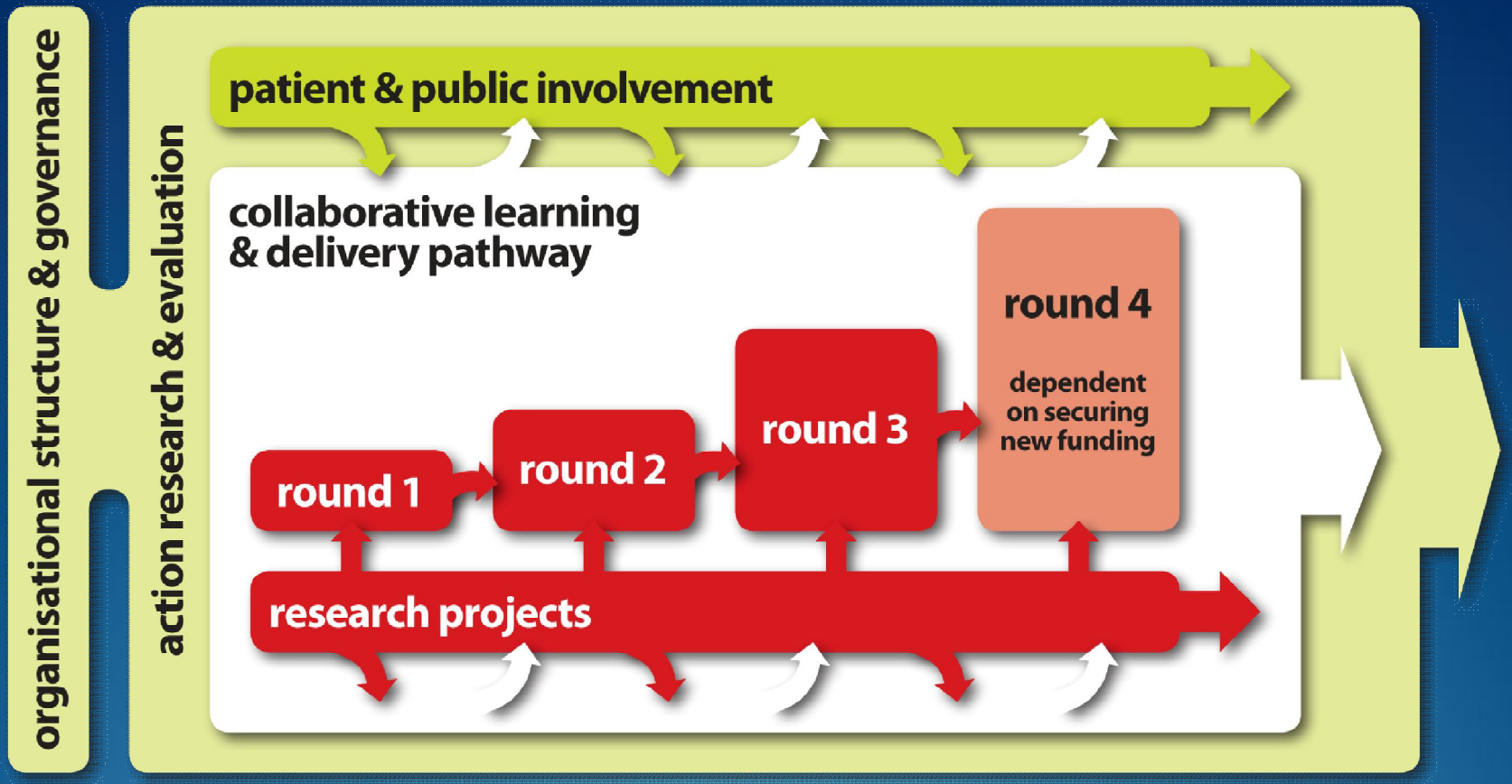

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Our Focus

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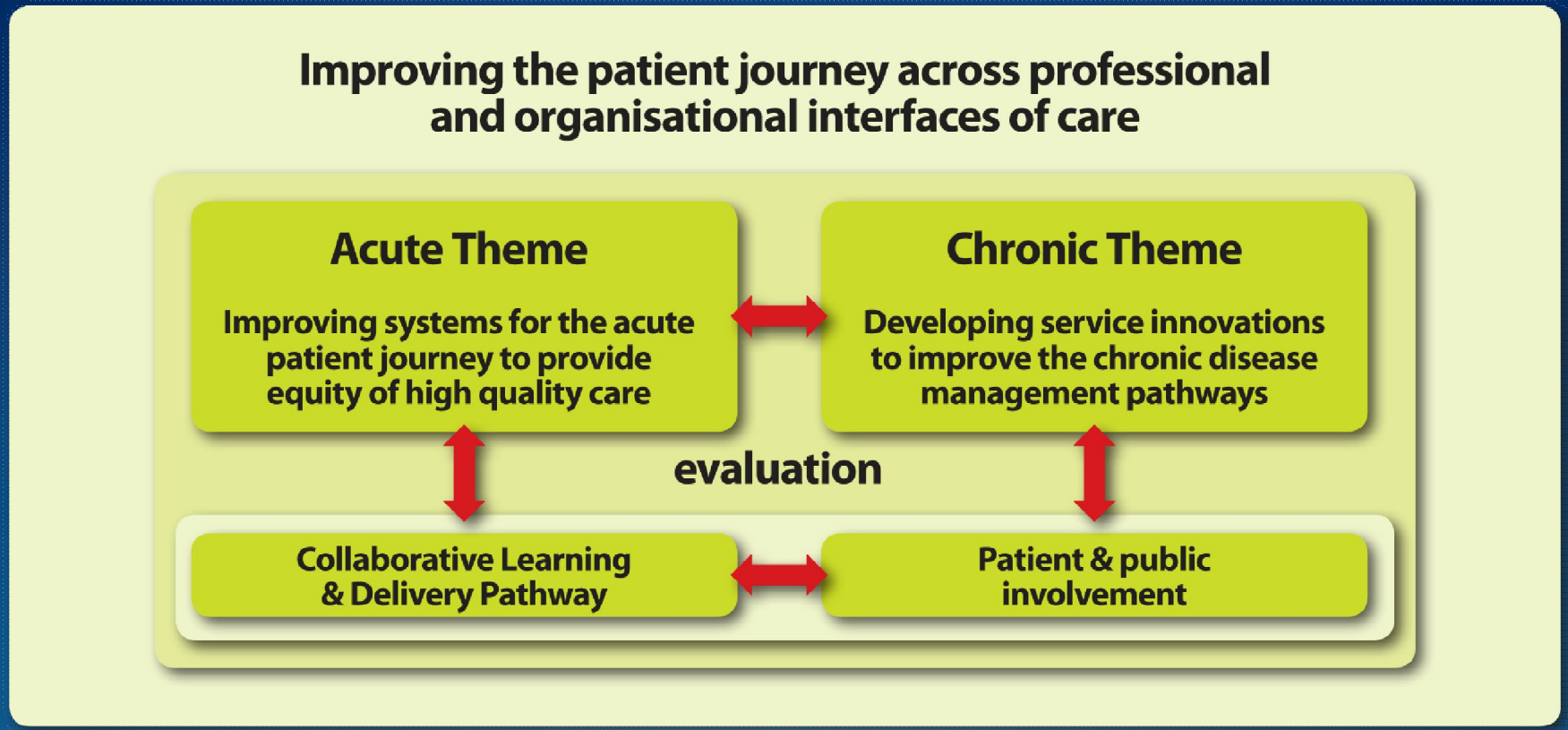

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Example: Project Flow

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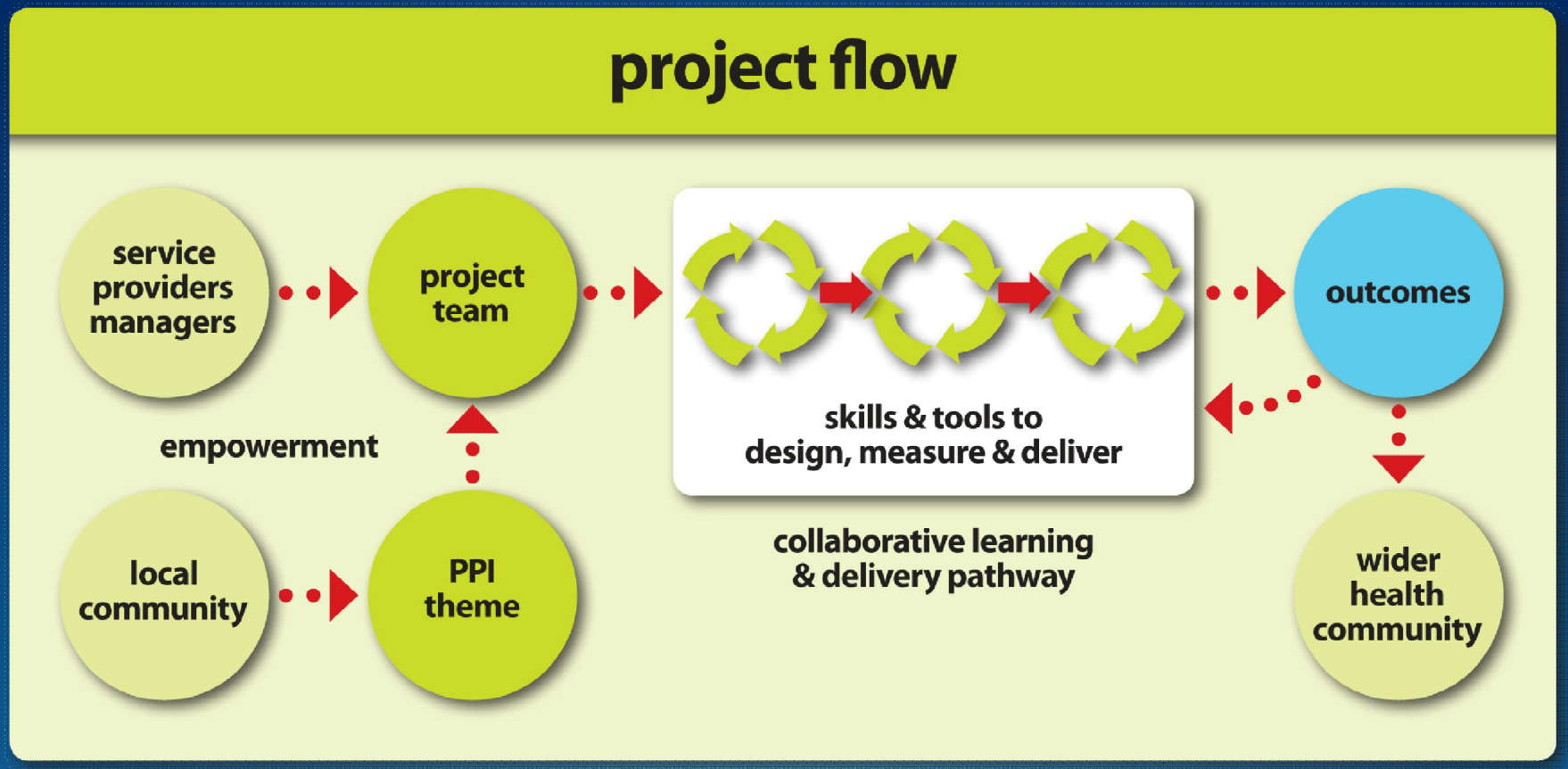

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d5

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Acute Theme Projects

- Medicines Management following discharge from the acute care setting
- COPD Discharge Care Bundle
- CAP Care Bundle

Chronic Theme Projects

- HIV testing in non-specialist and community sites
- Case Management

Slide 23

d5 ? condense porojects to one slide and then use CAP as an example - will be shorter
dbell, 31/05/2009

d10

COMMUNITY ACQUIRED PNEUMONIA (CAP) CARE BUNDLE

West Middlesex University Hospital NHS
NHS Trust

Has your patient got symptoms and signs of lower respiratory tract infection **and** new shadowing on chest x-ray?

→ Follow the 5 steps and fill in the Patient Record Form in full

To be done within 4 hours of arrival

(1) PATIENT INFORMATION: **Give patient/carers the information leaflet on CAP**

(2) OXYGEN:
Record oxygen saturations on admission
Prescribe oxygen to maintain saturations 94-98% (88-92% for patients with COPD)
Take arterial blood gases if oxygen saturations are < 92% or co-morbidity
Monitor oxygen saturations ≥24hrs

(3) SEVERITY: **Derive CURB65 Score; 1 point for each:**
New Confusion ► Urea >7mmol/l ► Respiratory Rate >30/min ► Low Blood Pressure (Systolic <90mmHg or Diastolic <60mmHg) ► 65 years +

(4) PATHWAY: **based on CURB65 Score** (Investigations as per BTS guidelines recommendations*)

0-1 (Mild)	0-1 (with a co-morbidity or clinical concern)	2 (Moderate)	3-5 (Severe)
Treat in community	Admit Patient		
		► Sputum and Blood Cultures* ► Urinary Pneumococcal Antigen Test*+ (+Not available currently at WMUH)	► Consider Higher Level Care ► Sputum and Blood Cultures* ► Urinary Pneumococcal Antigen Test* ► Urinary Legionella Antigen Test* ► Atypical Pneumonia Serology Tests*
Oral Antibiotics 1st dose before discharge	Oral or IV Antibiotics		IV Antibiotics

(5) ANTIBIOTICS: **1st do**

0-1 (Mild)	0-1 (with a co-morbidity or clinical concern) / 2 (Moderate)	3-5 (Severe)
Amoxicillin 500mg TDS PO x 7 days if atypical suspected Add Azithromycin 500mg OD PO Penicillin allergy / alternative Azithromycin 500mg OD PO x 3 Days	Amoxicillin 500 - 1000mg TDS PO x 7 days + Clarithromycin 500mg BD PO x 7 Days (if clinically indicated give Benzylpenicillin IV 1.2g QDS in place of Amoxicillin) Penicillin allergy / alternative: Azithromycin 500mg OD PO x 3 Days (If IV clinically indicated treat as per CURB-65 ≥3)	Benzylpenicillin IV 1.2g QDS plus Clarithromycin IV 500mg BD or Azithromycin 500mg OD PO Review IV daily & consider step down to: Amoxicillin 500mg TDS PO ± Clarithromycin 500mg BD PO Penicillin allergy / alternative Teicoplanin 400mg IV 12 hourly x 3 doses followed by OD + Azithromycin 500mg OD PO

Slide 24

d10 ? condense porojects to one slide and then use CAP as an example - will be shorter
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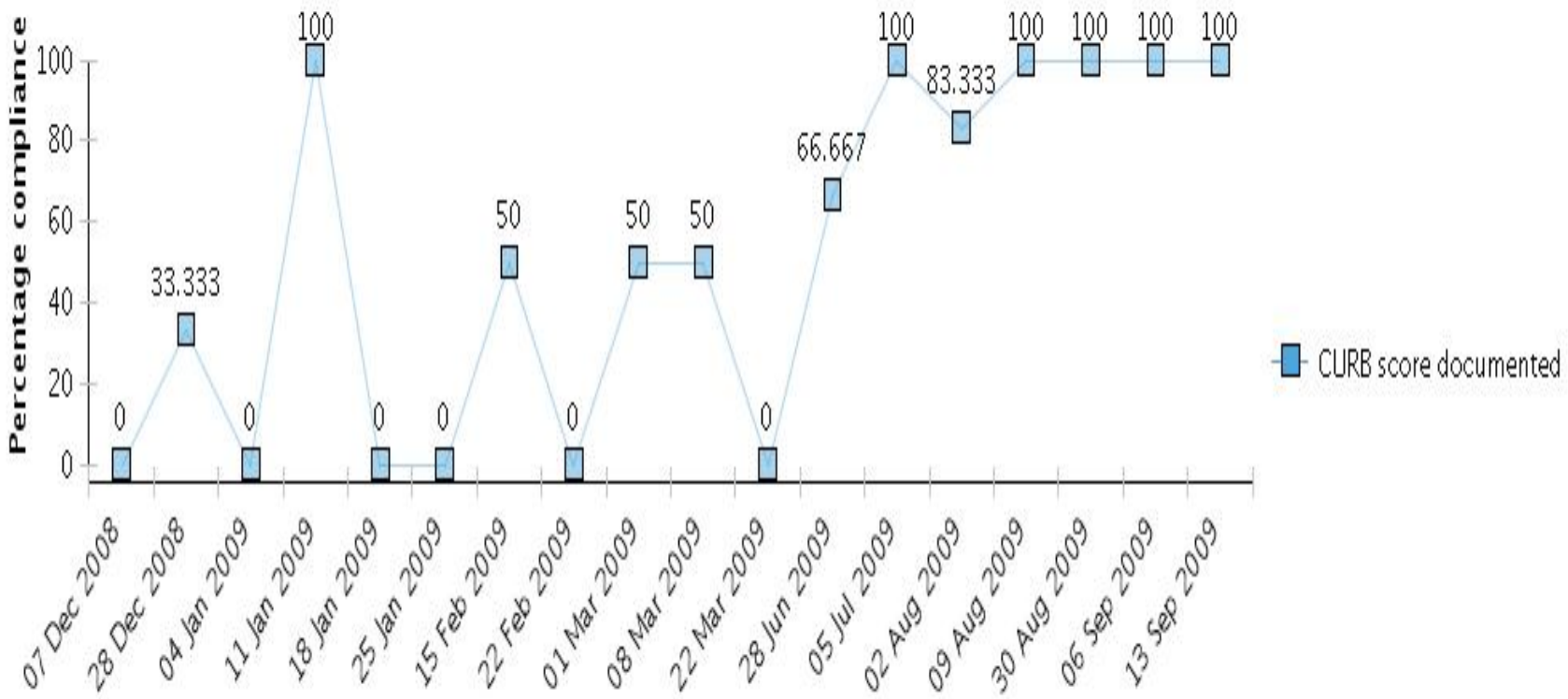
Web Reporting Tool

Measurement for improvement



Planning for Sustainability

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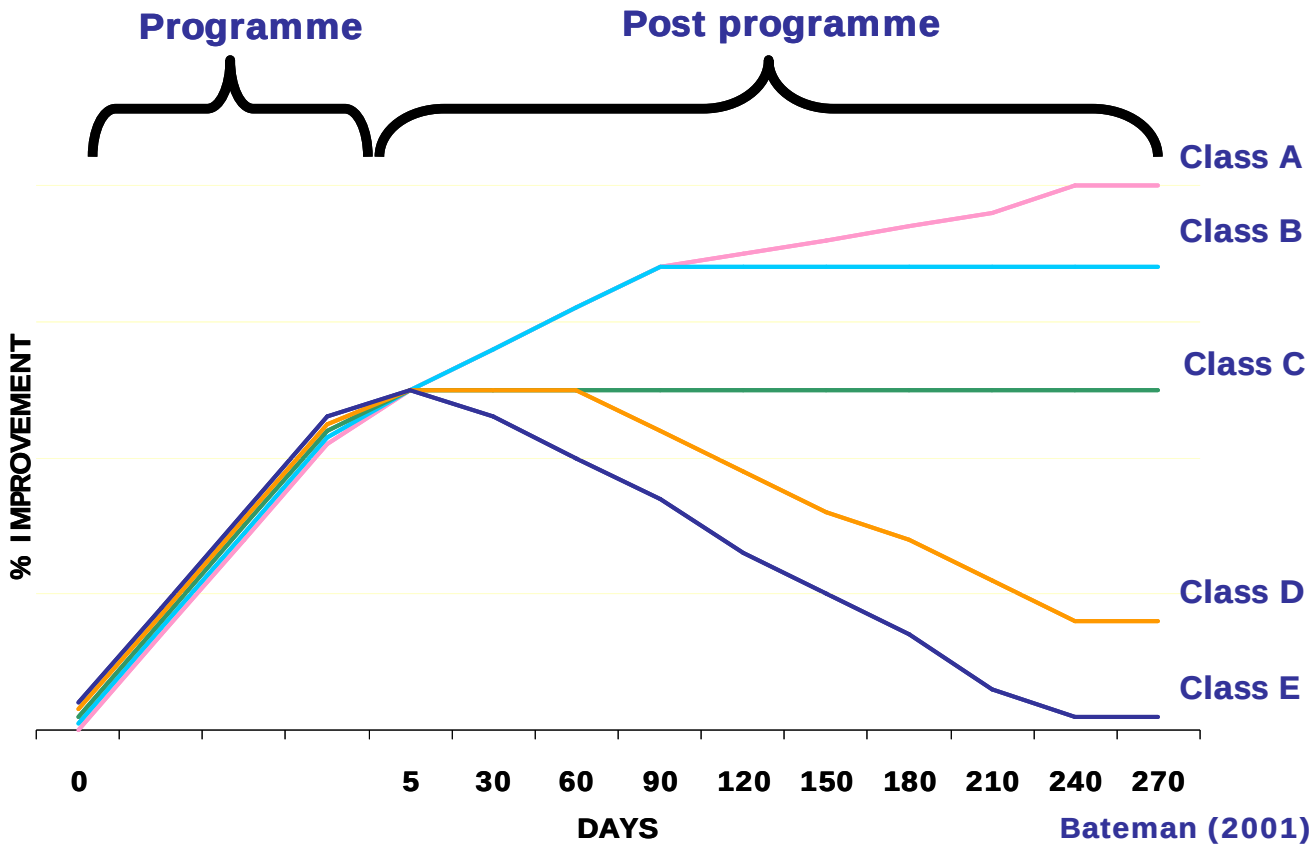

Bateman (2001)

What is needed……

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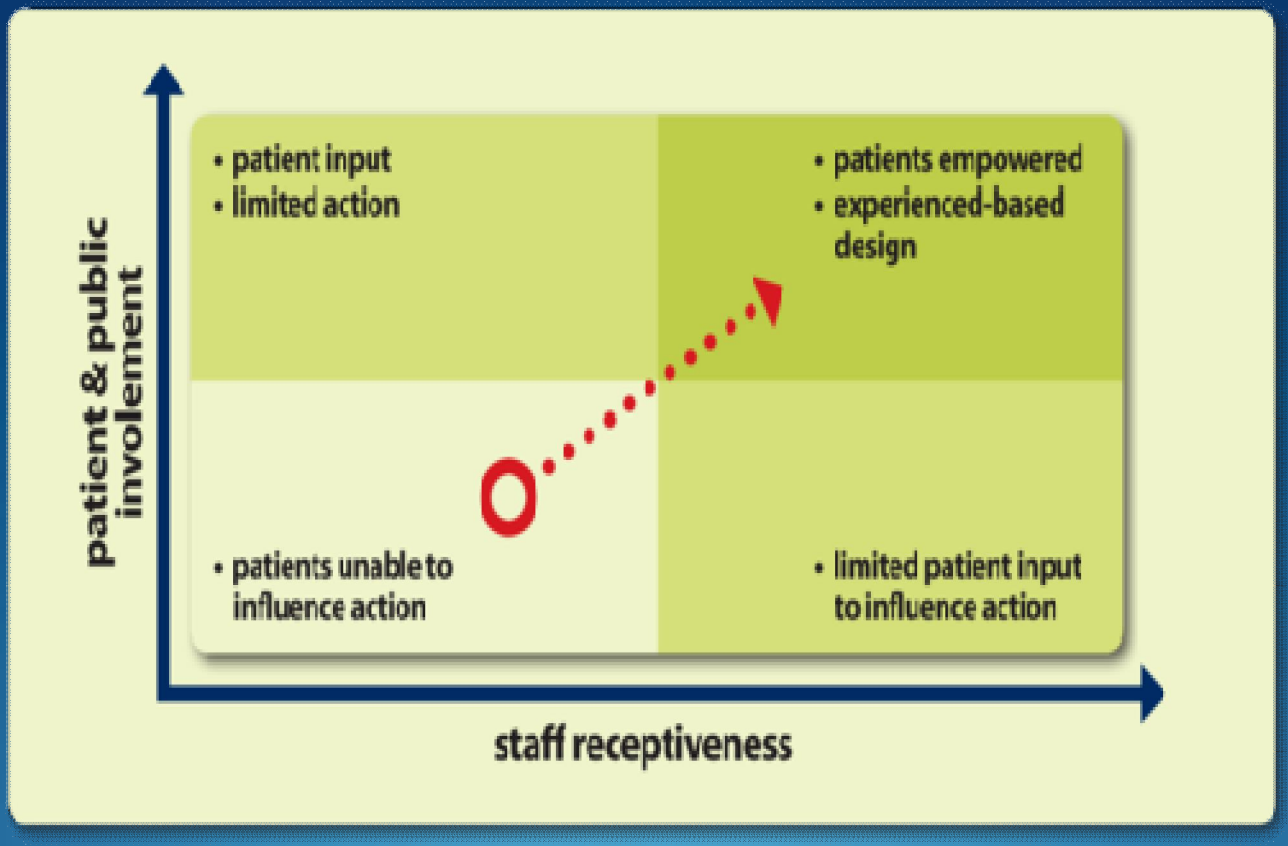

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d6

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Project Rounds

- Successful Projects Roll-Out to sites across Northwest London
- New Projects Start – April Each Year
  - Responsive to local needs
  - Dynamic
- Round 2 selection process
  - 43 Registration of Interests
  - 28 Final Applications
  - Capacity Building
- Projects
  - Not disease focused
  - Patient journey across interfaces of care
  - Generalisable model

Slide 28

d6 ? condense porojects to one slide and then use CAP as an example - will be shorter
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d8

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Outputs

- Projects
  - All progressing
  - Community Acquired Pneumonia Care Bundle
  - Educational slide programme
  - COPD Discharge Bundle
- PPI
  - Integrating LINks into research agenda
  - 2 reports on PPI and research
    - One to be published with NHS Confederation and SDO
- Web reporting tool
- Evaluation - Economic evaluation of PPI

Slide 29

d8 ? condense porojects to one slide and then use CAP as an example - will be shorter
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CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) DISCHARGE CARE BUNDLE

Chelsea and Westminster Hospital NHS
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Summary – This care bundle is a group of evidence based items that should be delivered to all patients being discharged from the hospital following an Acute Exacerbation of Chronic Obstructive Pulmonary Disease (AECOPD). The care bundle aims to improve quality of care, patient experience and minimise the risk of re-hospitalisation. To ensure the bundle can apply to all we have prepared a combination of actions and documents to facilitate the discharge process.

Inform the COPD CNS of all COPD patients within 24 hours of arrival including patients discharged . Extension 55362 or 58472.

PRIOR TO DISCHARGE

CARE BUNDLE STEPS
All required documents are included in package.

1. If patient is a smoker offer smoking cessation assistance
For community referral Fax **020 8962 4135**
For C&W clinic referral Fax **020 8746 5684**
Completed ☐ Declined ☐ N/A ☐ Not Done ☐

2. Pulmonary rehabilitation -assessed for suitability
First point of contact, either by the CNS Nurses or Physiotherapist, who will assess and refer patient. Nurse to contact if not done prior to discharge (fax referral form)
Completed ☐ Declined ☐ N/A ☐ Not Done ☐

3. Written COPD patient information given including :
•British Lung Foundation Self Management Book
•Oxygen alert WALLET card
•Information about the Breathe Easy Group
Completed ☐ Not Done ☐

4. Satisfactory use of inhalers demonstrated and understood
Please assess during medication rounds. Observe the patients using the device(s) and document on electronic prescribing record adequate technique demonstrated. (Refer to pharmacist or CNS if extra support is needed).
Completed ☐ Not Done ☐

5. Outpatient follow up appointment made and given to patient
Patient should see respiratory medical specialist and COPD respiratory nursing specialist within 1 month of discharge. (Appointment should be scheduled and patient made aware of location, time and date).
Completed ☐ Not Done ☐

DAY OF DISCHARGE

Patient Sticker

GO TO
Patient COPD Safe Discharge Checklist

To be completed by nurse with the patient.

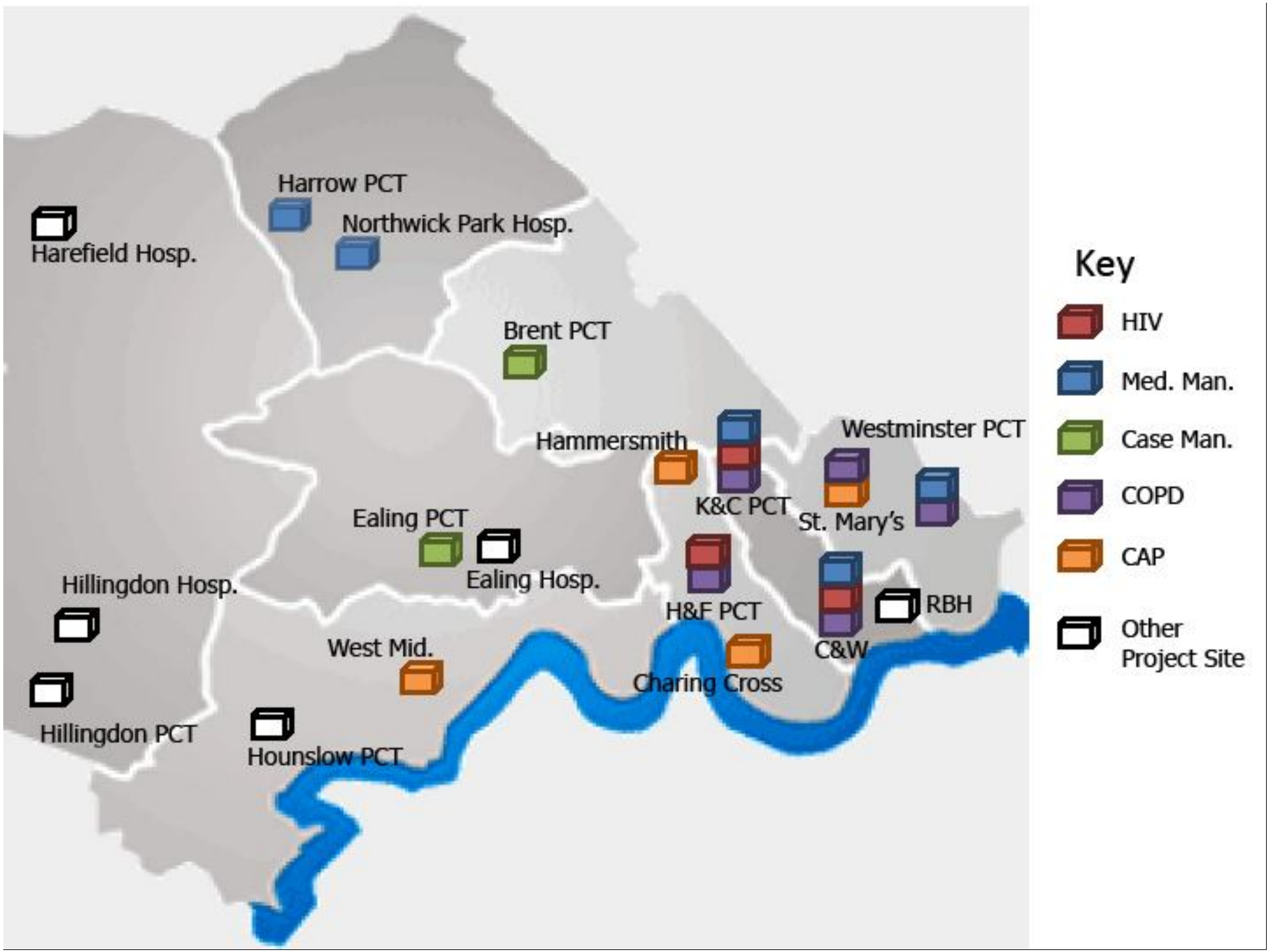
Note: Ensure phone Call scheduled for 48-72 hours post discharge. (6)

Nurse (Initials) ☐
Checklist Completed ☐

Date:___/___/___

Place the faxed referral form(s) in the plastic sleeve during the patients stay, at discharge place with the COPD Discharge Checklist in the 'Completed' COPD Care Bundle Box located;
AMU /David Erskine: Nurses Station (Maroon coloured boxes)

Care bundle components are based on:
NICE COPD guidelines 2004 (1-5)
A Patient Experience Survey CLAHRC team April 2009 (6)
Systematic Literature Review supported by CLAHRC April 2009 (1-6)


Harrow PCT
Northwick Park Hosp.
Harefield Hosp.
Brent PCT
Hammersmith
Westminster PCT
K&C PCT
St. Mary's
Ealing PCT
Ealing Hosp.
Hillingdon Hosp.
H&F PCT
RBH
C&W
West Mid.
Charing Cross
Hillingdon PCT
Hounslow PCT
Key
HIV
Med. Man.
Case Man.
COPD
CAP
Other Project Site

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'Accelerating research into better care'

- **Systematic approach to implementation in complex systems**
- **Research capacity and capability**
- **Collaborative research network**
- **Rigorous research framework**

Funding **Collaborative Network** **Framework**

CLAHRC expertise **International expertise**

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- Unique opportunity to rapidly improve the delivery of research into practice
- Collaboration which crosses organisational and professional boundaries – Whole Systems Approach
- Multi-professional framework
- Opportunity to plan new projects which are relevant to the population of Northwest London and beyond
- Strategic Partnerships

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THE PAIN STARTS IN MY HUSBAND'S LOWER BACK, THEN IT TRAVELS UP HIS SPINE TO HIS NECK, THEN IT COMES OUT HIS MOUTH AND INTO MY EARS. AND THAT'S WHY I GET THESE HEADACHES.
CHIROPRACTOR
GLASBERGEN

Upcoming Dates

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- Patient and Public Involvement Events
  - 26th February 2010 Community Engagement Event
    - (Wellcome Trust)

- Collaborative Learning and Delivery
  - January 14th 2010 (RCP, Regent's Park)
  - March 30th 2010
  - Thursday 1st July 2010
  - Thursday 16th Sept 2010

- Keep in touch
  - http://www.clahrc-northwestlondon.nihr.ac.uk/

Fellowship Programme

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- New CLAHRC funded Fellows
  - Build capacity in NWL
- All partners (CEO) invited to nominate a Fellow
  - Focused 9 month programme
  - Complete individual project
- Supported development
  - Protected Time and training
- For more information
  - r.barnes@imperial.ac.uk
  - r.myron@imperial.ac.uk