Innovation in health and care: overcoming the barriers to adoption and spread for

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The problem

10 million people in UK live with chronic joint pain / osteoarthritis
- Pain, ↓ mobility, ↓ function, physical + mental co-morbidity

↑ longevity, inactivity & obesity = ↑ prevalence

- 2030: ≈17 million people affected in UK

Impact on NHS
- 3rd highest spend
- 1 in 4 primary care consultations
- NSAIDs ~£45m - Opioids???

(mis)Management
- Not NICE - NSAIDs, paracetamol, opioids, surgery
- Not addressing poor health beliefs and behaviours
Enabling Self-management and Coping with Arthritic Pain through Exercise

Integrated rehabilitation programme (2/wk for 6 wks):

✓ patient information, advice
  their "pathology", self-management, pain coping strategies, wt control

✓ exercise regimen
  individualised, progressive, challenging

shows people what they can do, change health beliefs
change behaviour – more physical activity
control symptoms and course of the condition
Safe and more effective than usual primary care

Reduced healthcare utilisation

More cost-effective than usual care

Participants and therapists love it

Sustained benefits for up to 30 months

May avoid surgery

Most effective programme

Rol £1 spent = £5.20 return

Easily implementable

ARUK 2017

PHE 2017

NICE QIPP 2012

Hurley et al 2010

Hurley et al 2007a

Hurley et al 2007b

Hurley et al 2012

Svege et al 2015

Pisters et al 2007
Dissemination
papers, presentations
clinical departments
committees, policy makers

Cited in guidelines (NICE, EULAR, ACR)

NICE QIPP case study
Core 4 = ESCAPE-pain

Explain why the programme is what it is – ethos, content, format
Possible routes to spread:

• bottom up - front line clinicians

• CCGs / STPs

• other provider organisations – leisure/community centres

• improvement networks / AHSNs

• top down - policy, mandate
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• top down - policy, mandate
Support of local senior clinicians is essential for implementing and sustaining programme

- Evolution in practice
- Packaged evidence - ready to ‘plug in’ to pathways
- Fits with national policy and local need
- Shared-ownership
Clinical resistance -

- Continual pressure to reduce sessions – changes evidence-base
- 12 sessions doesn’t fit with (arbitrary, non-evidenced) 1:3 f-u:Rx ratio
- No group tariff – treating group 10 people (~1.2 sessions)
- Commercial Providers – programme “cost-ineffective”

- Data burden – time, effort, cost, capabilities, capacity

- Staffing issues – high cost, high turnover
Possible routes to spread:

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The (black) art of Commissioning

Difficult to know who to speak to, interim

Understand commissioning models, priorities,

• benefit statement
• costs
• savings - drugs, consultations, investigations, interventions, bed days
• what is required to implement and sustain

Decision-making processes - varied, confusing, impenetrable

Be lucky! good timing in commission cycle
Cost of ESCAPE-pain programme per participant

Band 7 physiotherapist ~ £163

Band 4 (assistant) and 5 physiotherapist ~ £95

Exercise Professional ~ £45
<table>
<thead>
<tr>
<th>Potential savings</th>
<th>/ 1000 participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiotherapy</td>
<td>£87.58 / person / annum</td>
</tr>
<tr>
<td>Medication</td>
<td>£21.64 / person / annum</td>
</tr>
<tr>
<td>Community based care (GP, district nurse, social care contacts)</td>
<td>£63.55 / person / annum</td>
</tr>
<tr>
<td>Total health and social care utilisation</td>
<td>£1,511.79 / person over 2.5 yrs after completing the programme</td>
</tr>
</tbody>
</table>

2017 prices
### ESCAPE-pain programme - Cost Saving and Return on Investment Calculator for Sunderland

<table>
<thead>
<tr>
<th>OA population</th>
<th>Cost of delivery per person (Note: to adjust delivery costs click on 'Delivery inputs' tab below)</th>
<th>Cost of delivery for total population</th>
<th>Total savings (£1,622/person over 2.5 years*) for total population</th>
<th>Total savings per year (i.e. total savings per year minus delivery costs)</th>
<th>Net savings per year</th>
<th>ROI per £1 spent*</th>
</tr>
</thead>
<tbody>
<tr>
<td>14,751</td>
<td>£96.62</td>
<td>£1,425,301</td>
<td>£23,926,122</td>
<td>£9,570,449</td>
<td>£9,000,329</td>
<td>£16.79</td>
</tr>
</tbody>
</table>

*Return on investment calculation is based on total savings per person (£1,622) over the costs of delivery per person

*Total cost savings of £1,622 are delivered over 2.5 years. These savings are based on updated figures from original RCT that tracked health utilisation over 30 months following ESCAPE-pain (Hurley et al 2012)

<table>
<thead>
<tr>
<th>5% of local OA knee population</th>
<th>Number of ESCAPE-pain programmes needed for 5% population in 1 year (10 per group)</th>
<th>Cost of delivery for 5% population</th>
<th>Total saving (£1,622/person over 2.5 years) of 5% population</th>
<th>Total saving per year for 5% population</th>
<th>Net saving per year for 5% population</th>
</tr>
</thead>
<tbody>
<tr>
<td>738</td>
<td>73.755</td>
<td>£71,265</td>
<td>£1,196,306</td>
<td>£478,522</td>
<td>£450,016</td>
</tr>
</tbody>
</table>

Data sources: [ARUK MSK Calculator](#); [PHE MSK ROI tool (2017)](#)

For more information about the ESCAPE-pain programme, please visit: [www.escape-pain.org](#)
Reduction in healthcare utilisation

<table>
<thead>
<tr>
<th>Reduction in average number of knee pain-related...</th>
<th>Extrapolated to 1000 pts</th>
<th>% of population with knee OA (4.1m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>...bed days (0.37)</td>
<td>370</td>
<td>151,700</td>
</tr>
<tr>
<td>...Out-Pt consultations (0.12)</td>
<td>120</td>
<td>49,200</td>
</tr>
<tr>
<td>...GP consultations (0.51)</td>
<td>510</td>
<td>209,100</td>
</tr>
</tbody>
</table>

If 10% of participants eligible for knee replacement choose not to proceed @ £4000/TKR

<table>
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<tr>
<th></th>
<th></th>
<th>£164m*</th>
<th>£411m*</th>
<th>£822m*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(41,100)</td>
<td>(102,750)</td>
<td>(205,500)</td>
</tr>
</tbody>
</table>

* 2015 prices
Commissioning resistance -

- continual pressure to reduce sessions – changes evidence-base
- 12 sessions doesn’t fit with (arbitrary, non-evidenced) 1:3 f-u:Rx ratio
- no group tariff – treating group 10 people (~1.2 sessions)
- commercial providers – programme “cost-ineffective”

- short-termism – within-year savings
- value activity more than outcomes

- secondary care reduces surgery = lose activity = lose money

- unwilling to commission if savings made elsewhere in system
- not interested in reducing GP consultations
- need to reduce enough beds to close a ward

- not interested in social care savings – 5YFV, STPs/ICSs?
October 2016:
~32 clinical centres
~3,500 participants
We have a problem here…

…we need to improve access
Possible routes to spread:

• bottom up - front line clinicians

• CCGs / STPs

• **other provider organisations – leisure/community**

• improvement networks / AHSNs

• top down - policy, mandate
in the community:

• 13 cohorts = 169 people
• Outcomes replicated
• Enthusiastic patient and clinician feedback
Participant stories - very positive, very persuasive

https://player.vimeo.com/video/151535343

“...I am much more mobile... [exercises] have given me the confidence to continue with them...”

“...it saves me from attending the hospital...”

“...I learnt how to manage pain with exercise and the pain is much less now...”

“...it was a good start for me to transform my health and weight...”

“...I have a training programme to help me with the rest of my life.”
17 leisure and community delivery partners
Possible routes to spread:

• bottom up - front line clinicians

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• top down - policy, mandate
HIN-ARUK partnership

- National leadership
- Training
- Quality Assurance
- Data collation
- Digital resources
- Development

- Funding central team
- National and local influencing
- Public Engagement
- Funding evaluations
AHSN national rollout – NHS England

- National leadership
- Training
- Quality Assurance
- Data collation
- Digital resources
- Development

Lead local implementation
- influence decision makers
- recruit new sites
- support existing sites
- track local spread
- promote fidelity

AHSN Network

The AHSN Network

NHS Innovation Accelerator

NHS England
Identified possible “markets” that could generate income

- access to evidence-based, NICE approved, effective programme
- provision of **bespoke training, implementation** and **ongoing support**

Varying costs of training and support to viable level only generates about 1/3 of costs needed to support the central team
• Reduce
  – primary care
    – GP consultations; medication; community care
  – secondary care:
    – physiotherapy wait times; consultations; investigations; arthroscopy/arthroplasty

• Alternative offer for
  – opioids (ab)use - side-effects, cost, addiction
  – knee arthroscopy (NHSE Value Intervention Programme)
  – orthopaedics if cross BMI threshold

• Promote self-management
• Prevention of inactivity and obesity
5YFV - NHS/community collaboration - new problems

- providers (PH, local authority, CICs, private)
- different drivers, ethos, business models

- need to understand and develop
  bespoke training
  establish access (referral routes)
  overcome concerns ("non-traditional" healthcare)
# How do we influence the influential

## Challenges

How to win friends and influence people
- few levers
- little/no money!!

## Solutions

**Communicate** –
- who we are, what we have,
- how it can help them, how we can help them

**Work with the willing**

- Be supportive, make it easy
  - help with set-up, delivery, evaluation

**Pilot** – show it works, adapt (fidelity?)

**Getting to right people, at the right time**

- Speak their language
- Help them understand – distil information
June 2018

83 sites:

56 clinical
27 community

6,500 participants
Thank you