Against the odds: positive disruptors bring real time NHS data to the public

NHS Quicker - A new Devon & Cornwall Urgent Care smartphone app/ PC

What we will cover:

- The problem
- Network theory
- Theory into practice – our journey
- NHS Quicker app
The problem

- 66% of patients attended ED compared with Minor Injury Unit
- ED breached the 4-hour target 25% compared with <1% for MIUs.
- Devon & Comwall population 1.65 million people
  - 11% aged over 75 years compared with 8% nationally
  - Holiday hotspot – South West England 20.4m trips in 2016, 73.6m nights
  - Cornwall and Devon have two of the three highest percentage of stays length 4-7 nights (51.6% and 48.0%)
- 2 STPs, 6 CCGs, >6 Trusts, 2 Unitary Councils, 2 County Councils

The problem

- Utilisation of ED’s are exceeding available capacity
- High variability in demand leads to unbalanced utilisation of resources
- Approximately 30% of ED attendances can be treated by alternative providers which are frequently under-utilised
- The evidence suggests that patients do not have enough information to make attendance decisions
- Inappropriate attendance often due to: lack of knowledge about alternatives, risk averse behaviour, proximity to ED & assumptions about availability or access to alternatives
Network theory

- Five core features
  - Common purpose
  - Cooperative structure
  - Critical mass
  - Collective intelligence
  - Community building

- Freedom to act/ Positive disruption

As a change agent, my centrality in the informal network is more important than my position in the formal hierarchy.

If you want to create small scale change, work through a cohesive network.

If you want to create big change, create bridge networks between disconnected groups.

The Network Secrets of Great Change Agents | Julie Battilana & Tiziana Casciaro, Harvard Business Review, 2013 / @HBevan
**Common purpose**

**Aim:** To create an app by Dec 2017 which informs people with an urgent care need:

- Whether to go
- When to go
- Where to go
- Information about conditions/treatment

**Primary audience**

**Secondary audience**

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**Common purpose**

**System wide benefits**

- *Spreads the load across the system* - people look to services around where they are at the time they have a problem

- Support the delivery of the **4HR Standard** through increased utilisation of MIUs & other urgent care services

- Information already collected is **now visible** and **better utilised** for the common good.

- System architecture designed to develop **1App 4ALL** and/or flexible enough to integrate into NHS 111.
Cooperative structure

Development of informal (bridging) networks

Critical mass

Informal network
- Torbay & South Devon NHS Foundation Trust
- University of Exeter, Business School
- Royal Devon & Exeter NHS Foundation Trust
- Northern Devon Healthcare NHS Trust
- MI-DOS
- DOS
- NHS England – NHS Horizons
- Reactor 15 (App Developer)

New partners as a result of co-creation event:
- Royal Cornwall Hospitals NHS Trust
- Plymouth Hospitals NHS Trust
- Livewell Southwest
- Cornwall Partnership NHS Foundation Trust

Co-creation event with organisations & public
Collective intelligence

Test of Change – Torbay

Using tested change methodology - QI

Collective intelligence

“We're good at collecting the data, we're good internally at analysing the data, but it's still really difficult, in the healthcare space, to share that data”

Creative approaches - Information governance
Collective intelligence

One Data model
Multiple Database Implementations

Data Model
ICD-10 Type 2020 - Accident and Emergency Commissioning Data Set

Networks within networks (creating internal communities)

Relationship building (role of champions)

High levels of trust (psychological safety)

Small acts of kindness

Celebrate success no matter how small

Shared humility - "We can do this together"
NHS quicker: Live wait times

Current Location: EX4 4NY
- Enter a postcode
- Find Local Services
- Wait Times & Emergency Departments & Urgent Care Services
- Find Conditions & Treatments
- Call 111 (Not sure who to call?)

Newton Abbot Hospital
- Waiting time: 0 minutes
- Journey: 18.1 miles
- Estimated 57 mins

RD&E Wonford
- Waiting time: 3 hours 14 mins
- Journey: 8.2 miles
- Estimated 1 hour 27 mins

NHS Quicker: Local services

Current Location: EX4 4NY
- Enter a postcode
- Find Local Services
- Wait Times & Emergency Departments & Urgent Care Services
- Find Conditions & Treatments
- Call 111 (Not sure who to call?)

Exwick Pharmacy, New Valley Road, Exwick, Exeter, Devon
- Wait times: 5 minutes
- Journey: 8.8 miles
- Estimated 17 mins

Supercity Stores, Unit 11 Guildhall Shopping Centre, Exeter, Devon
- Wait times: 0 minutes
- Journey: 3.2 miles
- Estimated 6 mins
**NHS Quicker usage**

![Graph showing NHS Quicker usage](image)

**Evaluation framework**

<table>
<thead>
<tr>
<th></th>
<th>NHS</th>
<th>Patients</th>
<th>NHSquicker</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Data</strong></td>
<td>Staff interviews</td>
<td>Questionnaire re decision making and behavioural change for self-care of low acuity conditions</td>
<td>Patient questionnaire to establish penetration</td>
</tr>
<tr>
<td><strong>Secondary Data</strong></td>
<td>Attendance data for low-acuity conditions, including by postcode</td>
<td>Usage statistics from NHSquicker</td>
<td>Theoretical experimentation - Game Theory lab experiments</td>
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</tbody>
</table>
Thank you

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