

ARMED

ADVANCED RISK MODELLING FOR EARLY DETECTION

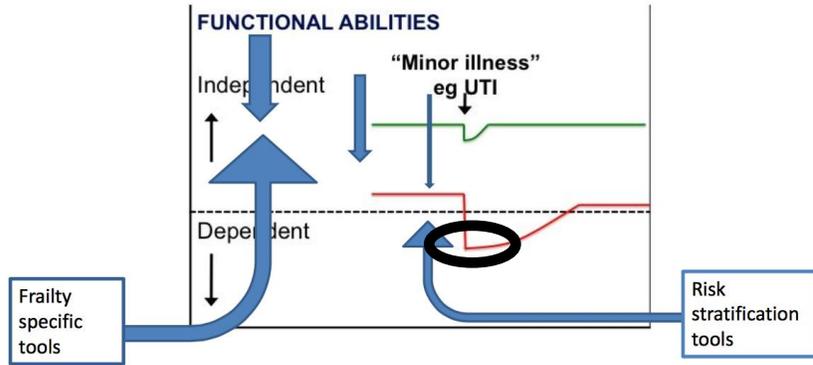
Data Driven Decision Making to Prioritising Escalating Risk

Kirsty Jewitt – Care Link Manager, Wakefield & District Housing
Brian Brown - Director of ARMED and Prof Doc Researcher

What the Research Tells Us

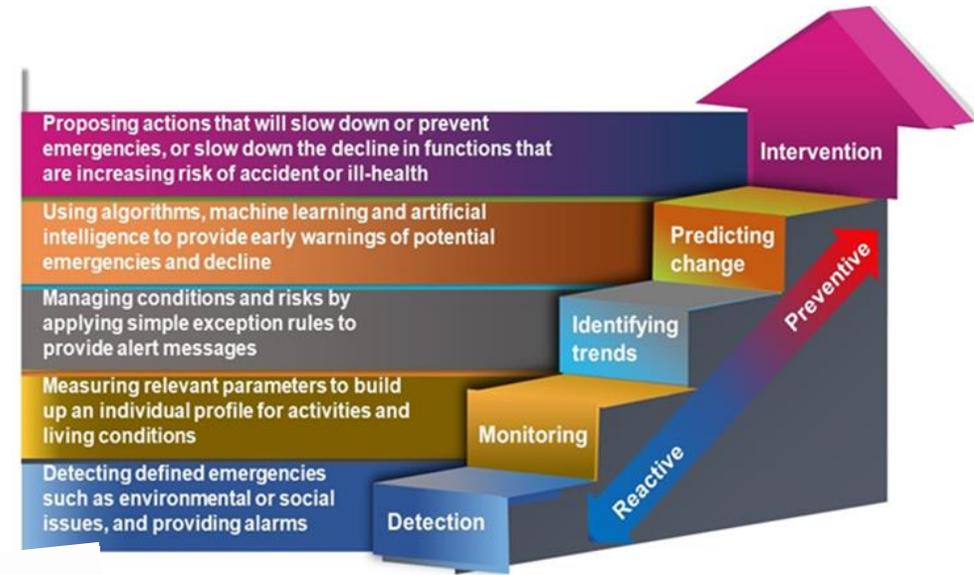
Frailty as an abnormal health state

(Loss of physiological reserve)

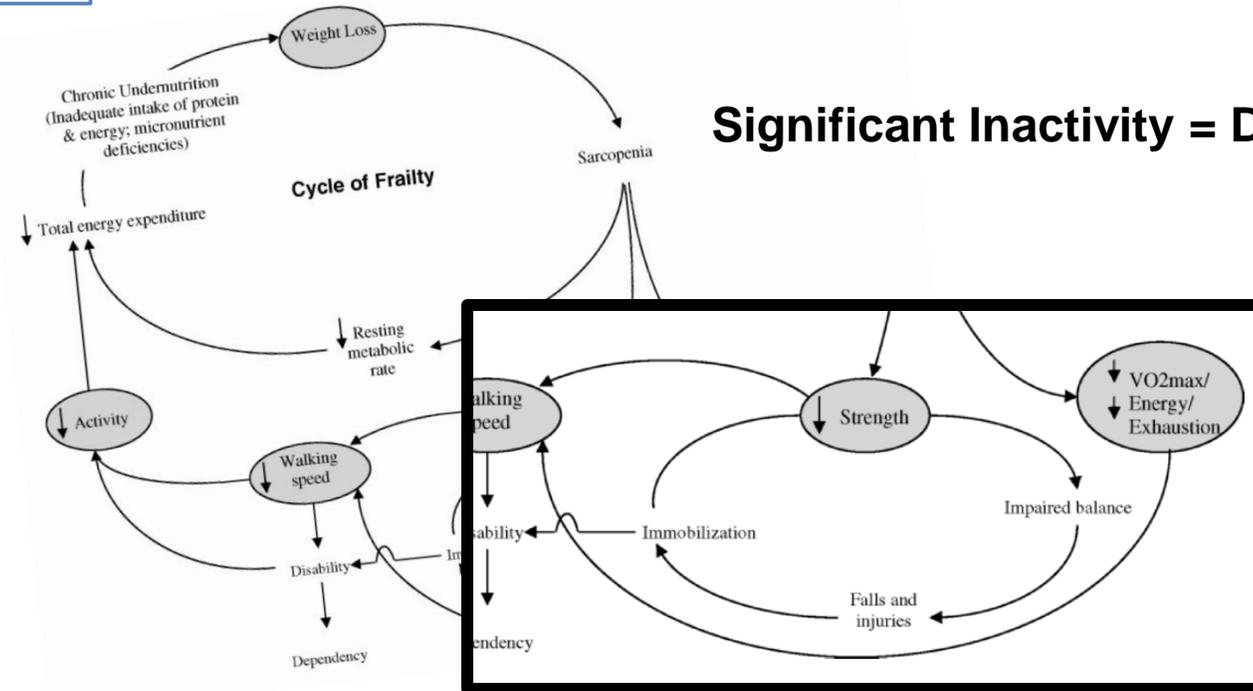


Clegg, Young, Iliffe, Olde-Rikkert, Rockwood. Frailty in elderly people. Lancet 2013; 3&

- STAGE 05
- STAGE 04
- STAGE 03
- STAGE 02
- STAGE 01



Significant Inactivity = Decrease in Strength





- Collaboration between Care Link and Independent Living services
- 50 residents across 3 Independent Living schemes
- Weekly support sessions including weigh-in and grip strength
- On site support from Scheme Manager



“ARMED in a Box” – Easy As 1-2-3

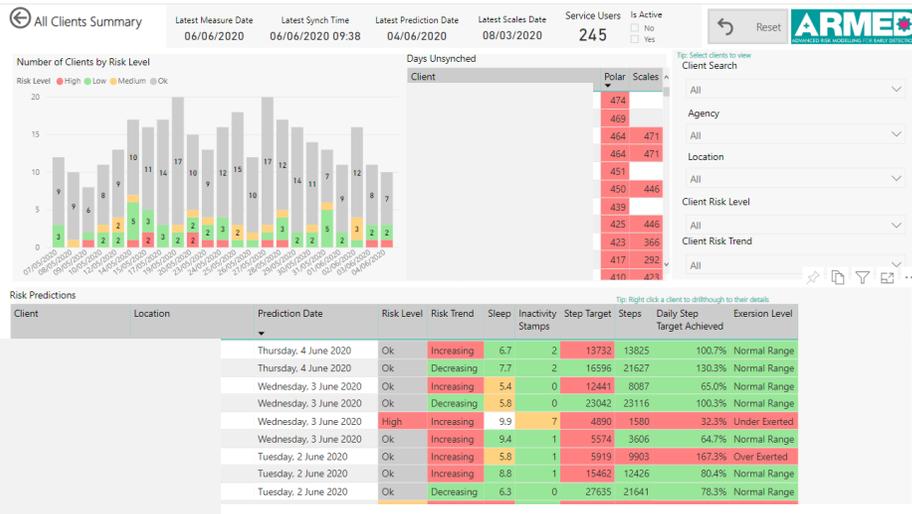


STEP 1

- ARMED in a Box came fully prepared, devices paired and ready to go onto the residents wrist
- This immediately started passively collecting data
- Staff fully trained in terms of deployment and data analysis / understanding

STEP 2

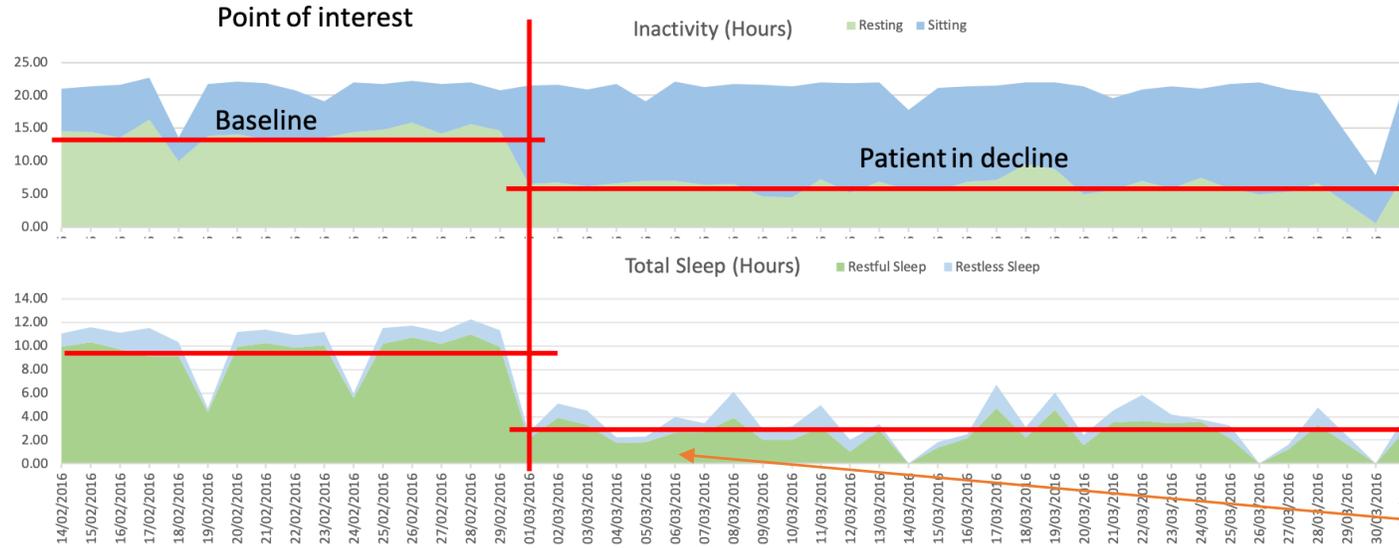
- The ARMED team supported system setup and configuration
- The system was configured by the time the hardware was configured / delivered
- Additional peripherals such as Bio-Impedance scales and strength grip measurements were also used
- Risk “Flags” started raising to WDH staff



STEP 3

- The ARMED reporting dashboards provided a wealth of data supporting that WDH staff access:
 - Identify the day to day escalating risks of individuals
 - Identify the risk trends of a person over a rolling two week basis
 - Identify if a person is over or under exerting themselves (important during isolation periods)

Patient 10 – Activity Profile

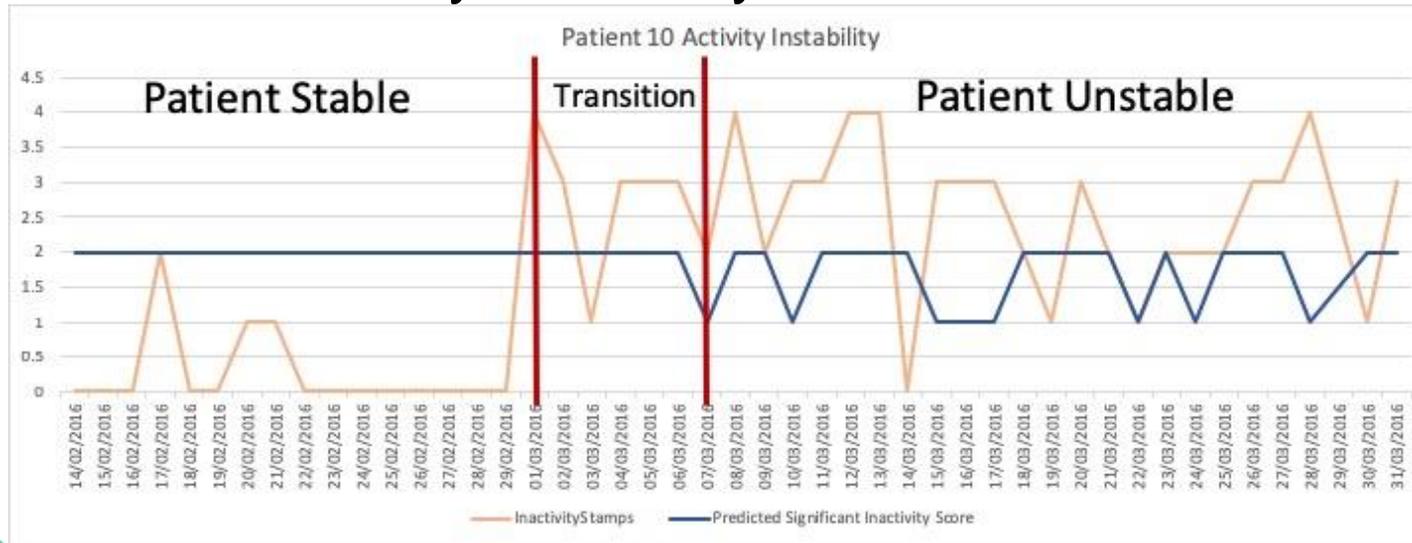


Person 10 # left side hip and passed away. Data indicated that they sat for up to 16 hours and slept restfully for 3 hours per night

When Person 10 Fell!

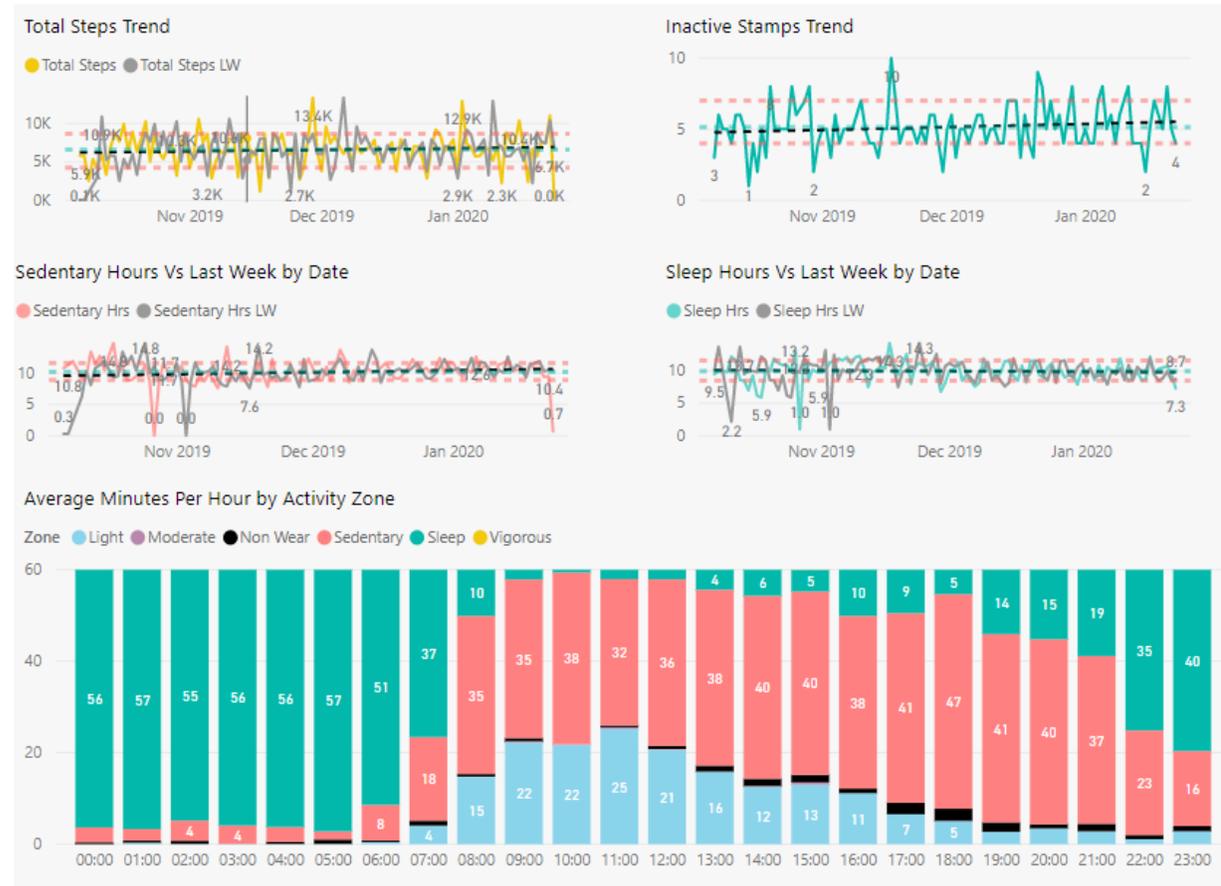
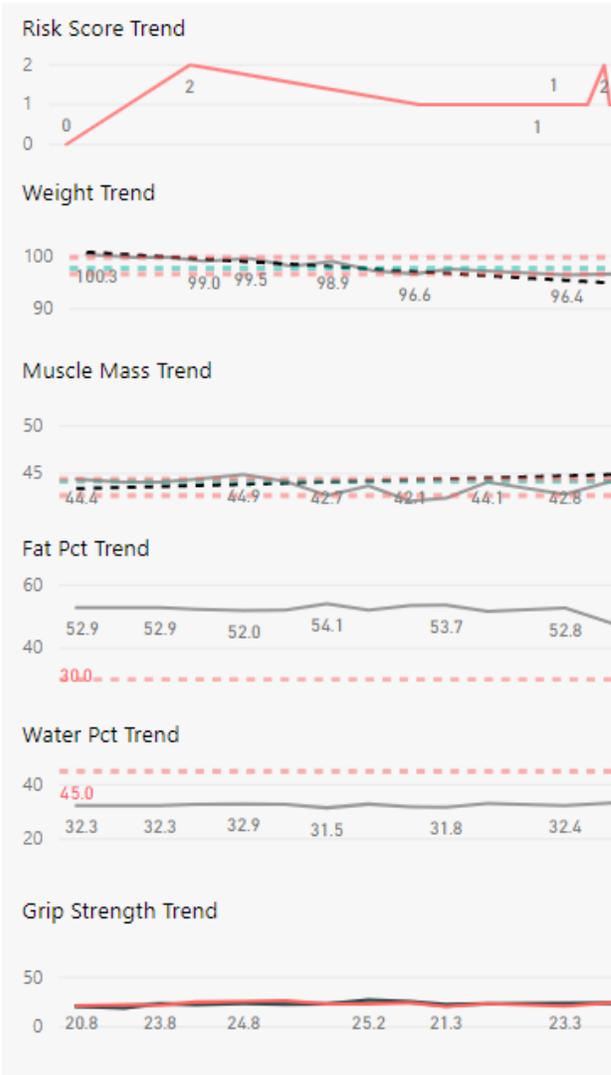
When the ARMED flag would have been raised. 32 days in advance of when person fell

Patient 10 – Activity Instability



ARMED therefore identifying decline through the risk transition / instability stages

Case study



- Increase in steps over duration of pilot
- Consistently losing weight
- Maintained muscle mass
- Fat pct has been high but has reduced
- Grip strength has shown an increase
- Overall wellbeing improved and no panic attacks

Control Group of residents

53 falls

ARMED customers

1 fall*

* 90 yr old Customer fell off kitchen worktop trying to paint his ceiling

High Level Dashboard Reporting



18 June 2020

Client Activity Overview



Activity Score	Steps	Step Goal	Step Goal %	Sleep Hours	Hours inactive
2	1388	5129	27.1%	6.8	2

Activity Score Explanation: High risk, Increase Activity

Latest Prediction Date:

16/06/2020

Name:

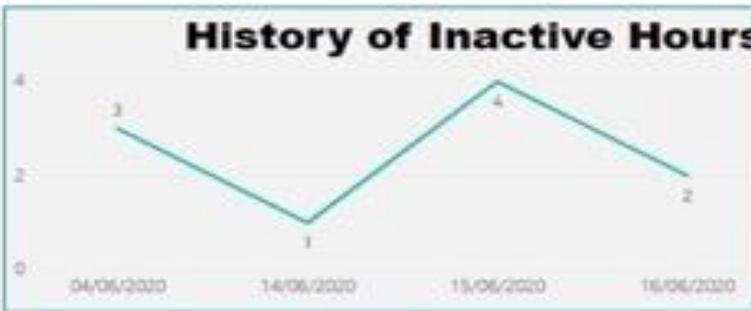
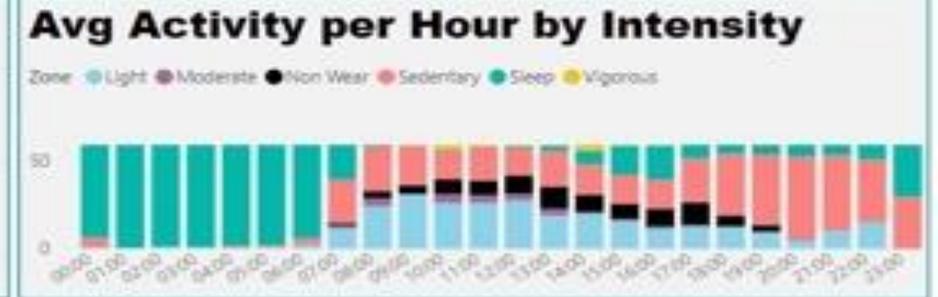
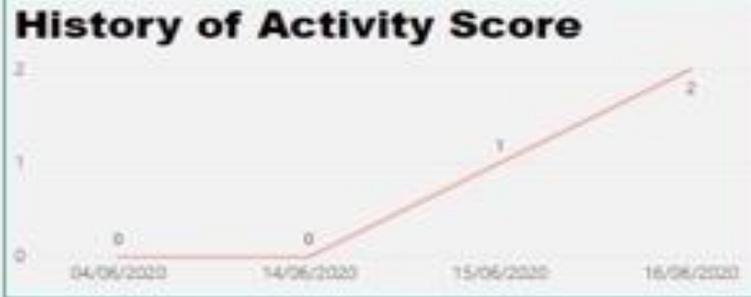
Brian Brown

Risk Trend:

Increasing

Exertion Level:

Under Exerted



Medical Device Conformity (MDD) Standard



Wearable technology that predicts health risks at home certified as medical device

◇ UNCATEGORIZED by SARAH CLARKE on JUNE 16, 2020

f FACEBOOK

🐦 TWITTER

in LINKEDIN

- Rostering
- Care plans
- Call monitoring
- Compliances
- Invoices
- Payroll
- Family Portal

care management
inspiring care excellence



ARMED in a time of Coronavirus

The current coronavirus crisis has rapidly changed the way the majority of us live and work, no more so than in the health and social care sector. Shielding and social distancing is throwing up huge challenges in an industry where human interaction is key. As a result of this pandemic, solutions are having to be conceived and implemented quickly and the role technology can play in this has really come into its own.

- Are the solutions you are purchasing future proofed?
- Do they have an open architecture to allow data flow in and out?
- Are they making some form of diagnosis, monitoring or prediction?
- **If so**, are they medically validated under MDD?

ARMED

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*Measure more,
Live better*

brian.brown@hastechnology.com

Kirsty.Jewitt@wdh.co.uk