

Code4Health Platform: Supporting Apps developers

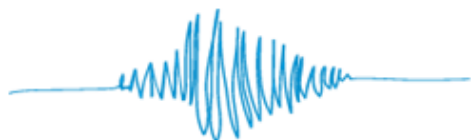
Software apps to support health and care - Supporting the app paradigm –
Creating a community of interest - That's HANDI

www.handihealth.org

Dr Ian McNicoll

HANDIHealth
openEHR Foundation
freshEHR Clinical Informatics

SCIMP/SNUG conference Sept 2015



openEHR

HANDI

HANDI Health CIC

- A not-for-profit Community Enterprise Company
- There to support:
 - Developers
 - Health and care professionals
 - Patients, service users and carers



HANDI

What will HANDI do?

- Facilitating networking, learning, cooperation, competition and innovation



HANDI

What Will HANDI do?

- Lobby for an environment (technical, cultural and commercial) in which apps can flourish interoperate and be orchestrated



HANDI

HANDI is agnostic

- About
 - Platforms
 - Business models
 - Standards
 - Tools, services and approaches
- Show the community the possibilities and let individuals decide



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The Changing Landscape

- An imperative to harness digital technology and Big Data to address health and care challenges
- The Internet revolution
- A proliferation of apps and devices
- A consumer health revolution
- From organisational to patient centred

The Changing Landscape

The “Internet “of Digital Health

- HANDI-HOPD
- The Healthcare Services Platform Consortium

Megasuite

“One system to rule them all”

- NPfIT
- Enterprise/GP Systems
- Limited external integrations

Open
Ecosystem

Best of
Breed

Platform

“Own the Platform”

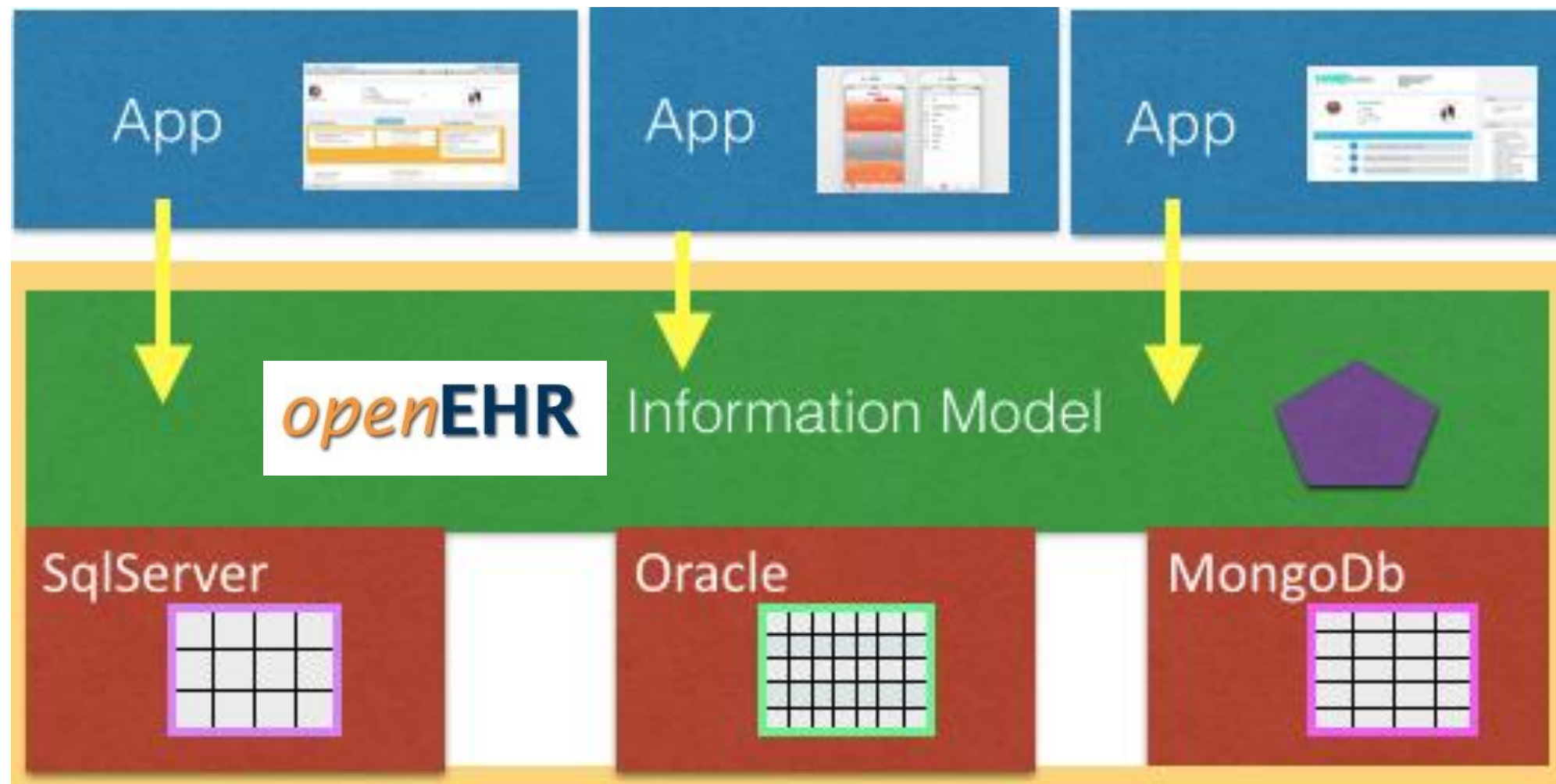
- Health Vault, Apple, Lorenzo, etc
- ~1000 apps
- Partner interfaces (Woodcote L3)

Many systems ~ 100

- Portals
- Integration engines
- Bespoke integrations

HANDI

'open platform' architecture



HANDI

Code4Health Platform

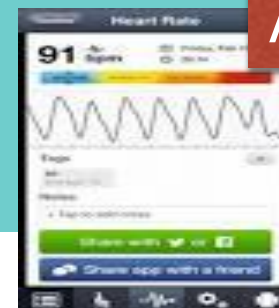
- A learning and experimental platform to explore the ecosystem
- A platform for agile user-centred design, clinical engagement and Code4Health
- No live use, using only fictitious personal data
- Based on open standards and proven industrial strength components
- Open to all-comers – No religious wars
- Transferable to operational use by others

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Code4Health

NHS England

Apps developers



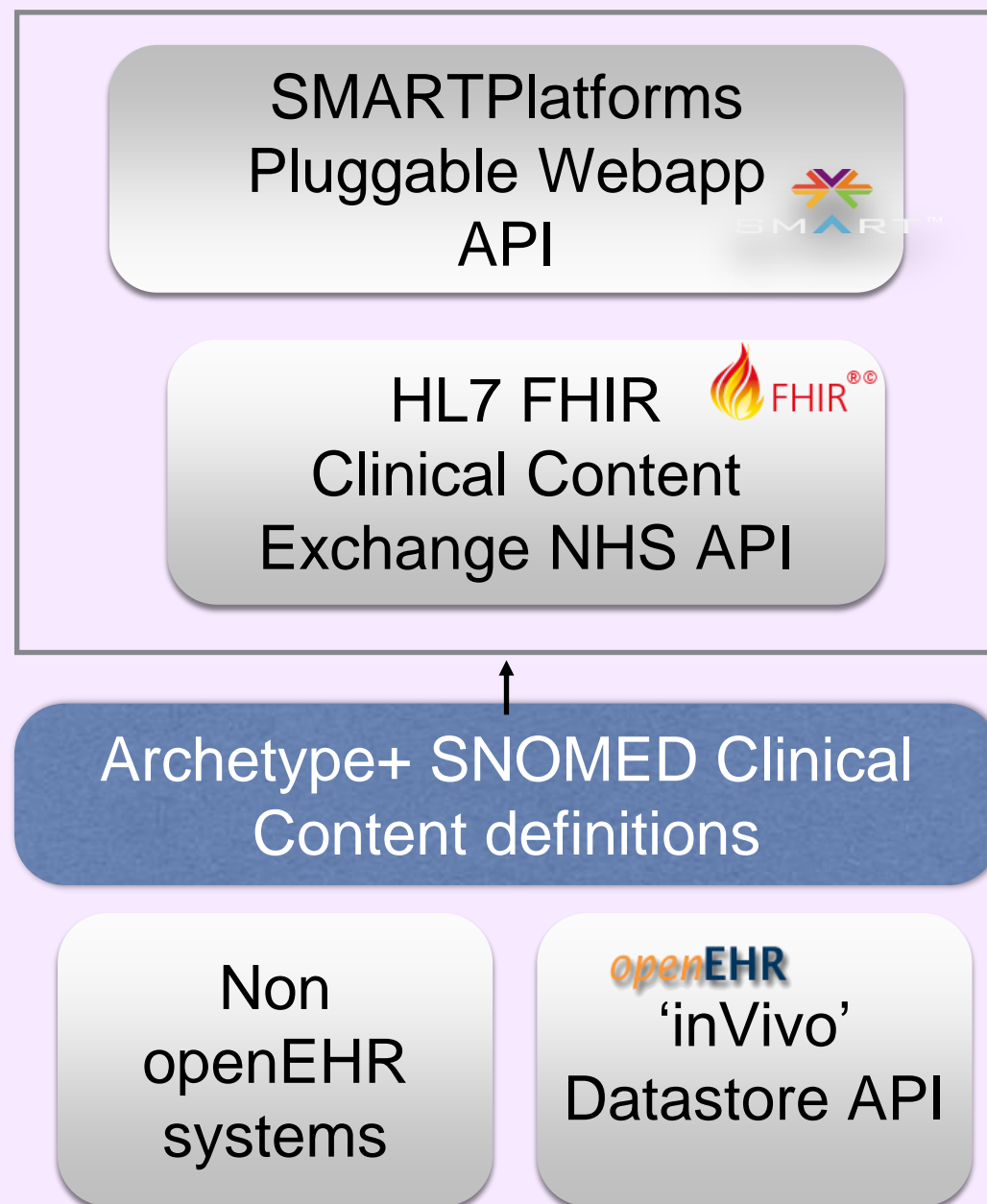
PRSB
Professional Record Standards Body
for England and Wales

Clinical leadership PRSB

Detailed
Clinical Content
Development

HSCIC

Terminology
Centre



HSPC: SMART on FHIR on Clinical Models


SMART on FHIR[®] – Open Platform Architecture



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MedsRecDIY: <http://diy-hopd.rhcloud.com/>


Handi Open Platform Demonstrator



Medsreca Wurst

Age: 24y 5m
Gender: Female
DOB: Mar. 9, 1990
Address: Flat 3b 123 Acacia Avenue, Leeds

Healthcare team members:



Send Report to GP

Our records show

Add a new Medication

Beconase Aqueous 50micrograms/dose nasal spray (GlaxoSmithKline)

2 SPRAYS BD IN EACH NOSTRIL

✓ I take this as prescribed

⚠ I take a different dose

✗ I don't take this at all

Amlodipine 5mg tablets

ONE TAKEN DAILY

✓ I take this as prescribed

⚠ I take a different dose

Your updated records

Beconase Aqueous 50micrograms/dose nasal spray (GlaxoSmithKline)

2 SPRAYS BD IN EACH NOSTRIL

Changed Dose

The dose has been doubled by the renal clinic

TogglDesktop-7_1_....dmg

Show All

Ripple OSI

rippleosi.org

Patient Summary

Contacts

Problems / Diagnosis

Allergies

Medications

Orders

Results

Procedures

Referrals

Appointments

Transfer of Care

Care Plans

MDT

Tags

COX, Ivor (Mr)Gender: **Male**Born: **20-Sep-2015**NHS No.: **9999999000**

Address: **6948 Et St., Halesowen,**
Worcestershire, VX27 5DVPhone: **(011981)**
32362GP Details: PAS No.:

Medications

Filter...

Name	Dose Amount	Source
Paracetamol	1g	openehr
Salbutamol 100micrograms/dose breath actuated inhaler CFC free!	two tablets	openehr
Atorvastatin	400mg	openehr
Ibuprofen	80000g	openehr
Claritin	10mg	openehr

+ Create

Medication

Name:
Salbutamol 100micrograms/dose breath
actuated inhaler CFC free!

Dose Amount:
two tablets

Dose Directions:
2 puffs as required for wheeze

Dose Timing:
Morning before breakfast

Route:
inhalation

Start Date:
01-Feb-2012

Start Time:
05:19 PM

Terminology: SNOMED-CT

Source:
openehr

HANDI

How is it used: underpins App development

Mary Wilkinson
 July 1, 1976 (38y 5m) • F
 1234567

Kardio • N3C-11/1 • 14-Nov-2014 • 12
 2008 Chronic heart disease
 Acute exacerbation

All routes

ATC

APL

	12:00	16:00	20:00	00:00	04:00	08:00	12:00	16:00	20:00
Tuesday 3 February 2015									
Wednesday 4 February 2015									
azee 500 mg DOSE 1-1-2-2 mg – 4X per day – When needed – Intracervical									
Clarithromycin (Clarithromycin) DOSE 500 mg – 2X per day – Oral									
Dopamine (Dopamine 200mg/5ml solution for infusion pre-filled syringes) RATE 10 ml/h – DOSE 2.5 mg/kg/h – CONTINUOUS INFUSION – Intravenous				10 ml/h					
Gliclazide (Gliclazide) DOSE 120 mg – Morning – Oral									
Gliclazide (Gliclazide) DOSE 80 mg – Morning – Oral									
Haloperidol (Haloperidol) DOSE 5 mg – 3X per day – Oral									
Haloperidol (Haloperidol) DOSE 5 mg – 3X per day – When needed –									

1001051 Miller, Chris
 DOB 27/06/1944 Walker (9876543)
 Discharged: 15/09/2011

Suspend until:

Flag this investigation:

Activity	Status	Start	End	Scheduled	Mobile	Role
BSI data - Enterococcus faecium (VRE)	Active	15/09/2011				BSI
Communication log	Proposed					Admin
Contact trace data - VRE_092011	Proposed					Admin
HBCIS Alert	Completed		15/09/2011			Admin
Isolate Patient	Completed		15/09/2011			Admin
Notify Nurse Unit Manager	Completed		15/09/2011			Admin
Perform serology	Scheduled			29/09/2011		Admin
SO data - Enterococcus faecium (VRE)	Proposed					SSS

Update Mobile Status
 Add Activity
 Print

Informasjon om pasienten

SIGMUNDSTAD*, Ramiza*
 23.09.1985*47516 - 28 år - Mann
 Stalovegen 84, 9016 TROMSØ
 91010306
 anonym@post.no

Case og kritisk informasjon
 Annet: Slaget viktig
 Anonymisert tekst
 Smitte Til informasjon: Blodsmitte

Flerevisningsår
 Anonymisert tekst
 Andre aktive primærhenvisninger: 2
[Vis historikk](#)

Pasientens diagnoser
 F20.9 Uspesifisert schizofreni
 F15.1 Skadelig bruk av andre stimulanter, inkl...
 F20.1 Hebefren schizofreni

Poliklinikk 20-Aug-2013 kl 12:00
 På PSTO - Voksenpsykiatri, pol Tromsø

Tidligere sykdommer
 Hepatitt C, 2003
 Sit endret i går: 09:55

Familie / Sosialt
 Gift, 3 barn
 Sit endret i går: 09:56

Medisinsk koding
 Ingen koder registrert på kontakten

Rediger

17

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