SORSIX

National EHR large-scale deployment in Serbia

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Lessons from SEE

EHTEL Questions
- How did you deploy the Serbian EHR for primary and secondary care in 6 months?
- How best manage stakeholders' involvement (from adoption to large-scale deployment)?
- What are your key lessons/observations for large-scale deployment?

Context – Serbia national EHR and backbone
- Serbia has a single EHR across the country, which unifies medical records, referrals, and in-system scheduling
- Project started in 2016: 3 months of localization, 6 months of rollout to full national coverage
- Ongoing improvements since

Sorsix
- Australian company with engineering office in North Macedonia
- Macedonian EHR project in 2011, ongoing improvements since
- Large deployments for public and private customers in ANZ

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'Moj Doktor', the Serbian health backbone

Based on the Sorsix Pinga platform

The scope of the project

- Full electronic record
    - All referrals
    - All prescriptions
    - All clinical interactions (clinical notes)
- Workflow tools for all GPs and Specialists
- API for integrated parties

Deployment size

- Approx. 80k users (~50k daily active, ~26k peak concurrent)
- Approx. 33k 'clinical resources' – clinicians, machines, some clinics
- Approx. 8m API calls per day (integrated systems – HIS, PMS, etc)
- Active relational database 3TB+
- Daily data payload 100GB

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Fast deployment across a nation

How was the Serbian EHR deployed in 6 months?

Start 'small but complete'

- One major clinical centre and its surrounding sites
- End-to-end digital workflows so that there is a positive conclusion to each referral or workflow process
- Simplified processes initially – do the basics better and faster

On-site + 'train the trainer'

- Hospital and clinic IT on-boarding and project ownership
- Leadership buy-in to drive adoption and ensure early win – provide fast value
- Learning by doing – ensure users have sent at least one e-referral, made one e-prescription, etc

On the road

- In-person 'train the trainer' crew went major clinical centre, one by one, delivering training over several weeks to initially the hospital then other clinics
- Very simple 'how referrals work' materials left with users – 'cheat sheets'

The first e-referral is written and transmitted, 2016
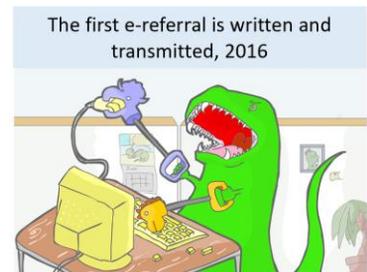
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Not just software – policy too

How best to manage stakeholder involvement throughout the project?

Show stakeholders value

- Key stakeholders should receive value too, not just from being the project support
- For Serbia, this was part of clinical practices the stakeholders themselves used – many senior officials are practicing doctors
- Ultimately, large-scale projects deliver essential value by creating *real-time visibility*

Report successes

- Weekly 'pile-on' meetings with two dozen stakeholders achieve nothing. A newsletter is sufficient
- Essential stakeholders should be *accessible*, they do not need to be *continuously involved*
- Regular – ideally real-time data – should be accessible

Policy should encourage progress

- In Serbia, regulations were updated to encourage the value driven by technology uplift
- Doctors were given the software for free to use
- Tech partners (e.g. HIS solutions) were paid and assisted to integrate with the new backbone, to prevent barriers to adoption

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What are the key lessons/observations for large-scale deployment?

The most important lessons

- Such a deployment must be *shallow* to drive fast adoption
- Such a deployment must be *broad* to justify user engagement – 'what good is it to me'
- A 'Pilot' should deliver immediate benefits

IT support is critical

- Even if users are proficient with technology, support is vital
- Support teams – IT and clinical – become experts by helping, adding further value to the project and their sites

Immediate benefits

- A project is conducted to provide improvement
- These improvements may take time to manifest
- Quick wins are vital to provide ongoing buy-in and drive the ultimate value a project is intended to bring

No. of appointments and median waiting time in Macedonia, 2014-2017

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Thank you

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