

Comparison of EMRs in Use in Ontario Public Health Units

Created: August 2015

	Intrahealth <i>Public health unit: Niagara</i>	Excelicare <i>Public health unit: Wellington Dufferin Guelph</i>	OSCAR <i>Public health unit: Kingston</i>	Nightingale <i>Public health unit: Waterloo</i>	PS Suite <i>Public health unit: North Bay</i>	QHR Accuro <i>Public health unit: Northwestern</i>
<p>Overview of EMR (programs in use, # of users, # on implementation team, # on ongoing maintenance team, # champions) [clarify if this includes all staff or just public health]</p>	<p><u>Background</u> Started in sexual health in May 2012.</p> <p><u>Programs in use</u> Sexual health clinics, secondary school team, dental clinic, travel immunization clinic. May be expanding to child health.</p> <p><u>Users</u> Approx. 70 users.</p> <p><u>Implementation</u> Year long process for sexual health, including RFP and customization time. 3 main staff</p>	<p><u>Background</u> Implementation occurred over 5 years. Started with sexual health.</p> <p><u>Program in use</u> For clinical documentation: sexual health and clinical services, control of infectious diseases (also use iPHIS), travel clinic, school health (also use Panorama), chronic diseases, child and family health kids line (also use ISCIS). For scheduling: dental clinics and speech clinics, as</p>	<p><u>Background</u> Oscar was implemented in June of 2013.</p> <p><u>Programs in use</u> Smoking cessation (3 users), breastfeeding (5 users), travel clinic (closed now – had 3 users). Sexual health implementation in progress (8 users).</p> <p><u>Users</u> 16 users</p> <p><u>Implementation</u> Internal team: 6-8 people (2 technical, 2 for testing, few</p>	<p><u>Background</u> Issued RFP in 2005. EMR implementation in 2006.</p> <p><u>Programs in use</u> Sexual health, TB skin test clinic, active TB clinic, vaccine preventable diseases (also use Panorama), dental health.</p> <p>Functionality in use: scheduling, billing, nursing documentation, case management task follow up, charting. Note: use of</p>	<p><u>Background</u> Investigation started in 2010. Went live in Feb 2011.</p> <p><u>Programs in use</u> Sexual health clinics only. Labs come in by fax. Approx. 20 users.</p> <p><u>Implementation</u> Team consisted of 2 super users, 1 manager and 1 administrator (from IT). Implemented in sexual health all at once.</p> <p><u>Maintenance</u> 5 super users. IT</p>	<p><u>Background</u> Previously used Xwave 2011-15. Switched to Accuro in late June 2015 as Xwave is phasing out.</p> <p><u>Programs in use</u> Sexual health clinics only. Will not be expanding.</p> <p><u>Users</u> 32 users (includes support staff, nurses, doctors).</p> <p><u>Implementation</u> Implementation to Xwave was difficult as paper was being used.</p>

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	<p>(business analyst, manager, team lead) and 5 super users all trained by Intrahealth. Similar model used for other programs but took less time to implement.</p> <p><u>Maintenance</u> One IT person devoted to EMR.</p>	<p>well as internal continuing education classes.</p> <p><u>Users</u> Clinic users: 50 Scheduling users: 20-30 people + all 170 staff for internal classes.</p> <p><u>Implementation</u> Vendor team: 4 Internal team: 4 champions, 1 IT, 1 business analyst.</p> <p><u>Maintenance</u> 1 business analyst, 5 clinic leads and vendor support desk. Steering committee made up of 12 directors, managers and clinic leads to monitor change requests and align</p>	<p>business analysts).</p> <p><u>Maintenance</u> 1 person for maintenance. Have 1 super user per area.</p>	<p>functionality varies by clinic.</p> <p><u>Users</u> 100 (includes admin, nurses, hygienists, coordinator).</p> <p><u>Implementation</u> Project team: lead, coordinator, nursing lead, program admin lead, management (5-10 for one division).</p> <p><u>Maintenance</u> Champions in each area. Manager, clinical supervisor, and project coordinator have system maintenance as part of their role (decentralized).</p>	<p>coordinates with PS Suite for updates.</p>	<p>Implementation of Accuro involved 5 people (2 of 5 are super users) and IT (4 people). Low maintenance now and Accuro helpdesk is being used. No champions in clinics. Staff were given online training and a practice training environment before implementation.</p> <p><u>Maintenance</u> Vendor supported. Ongoing IT support provided by Helpdesk.</p>

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		with EMR roadmap.		<u>Next steps</u> Nightingale moving to Nexia/ Nightingale 10. When upgrading, they will expand to other program areas (prenatal nutrition, tobacco cessation, infant & child development, breastfeeding).		
Why did you choose to get an EMR and this EMR in particular?	<u>Why an EMR?</u> 1) Move to paperless environment and reduce transport of documents 2) Program efficiencies <u>Why this EMR?</u> Has inventory and point of sale – unique. Intricate data extraction and reporting capabilities.	<u>Why an EMR?</u> 1) Streamline and improve patient care 2) Improve info sharing between offices 3) Complete view of client’s interaction with public health 4) A desire to interface with government reporting systems	<u>Why an EMR?</u> 1) Paperless environment 2) Appropriate information management. Better access to stats and reporting. <u>Why this EMR?</u> 1) Low cost 2) Open source 3) Flexible – can customize on our own	<u>Why an EMR?</u> 1) Reduce amount of paper 2) Improve documentation and consistency in documentation 3) Have scheduling, billing documentation in one spot 4) Reporting capabilities <u>Why this EMR?</u> In 2005 there	<u>Why an EMR?</u> 1) Paperless environment 2) Efficient documentation 3) Easy to access client information across multiple sites <u>Why this EMR?</u> Not known as EMR was not chosen by Sexual Health program.	<u>Why an EMR?</u> 1) Easy to access client information across multiple sites 2) Green friendly <u>Why this EMR?</u> <i>Xwave</i> : had functionality of locking fields that had been signed so it could not be modified. Other EMRs did not have this functionality.

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		<u>Why this EMR?</u> A boxed system for sexual health.	4) Local FHT also uses OSCAR Note: did not explore other EMRs.	were not many EMR vendors on the market. Nightingale was the successful vendor (of three applicants) in the RFP process.		<i>Accuro: Seemed most user friendly. Also it is an ASP model with a safe cloud based system that can't be hacked. Price point was also appealing.</i>
Does it have any unique functionality? (compared to a typical clinic EMR). Did you need to do any customizations? In what (high level)?	<u>Unique functionality</u> 1) Inventory and point of sale capability 2) Intricate data extraction and reporting capability <u>Customizations</u> Customized EMR to meet program needs.	<u>Unique functionality</u> Robust case management and labs results capability. Ability to integrate with other systems. <u>Customizations</u> Forms only.	<u>Unique functionality</u> 1) A community of users who will share solutions they have come up with. 2) Ability for doctor to make notes an image of the human anatomy in the chart. 3) Electronic signature pads for the client for consent. <u>Customizations</u>	<u>Unique functionality</u> None <u>Customizations</u> Built own templates and some custom reports (created by Nightingale) to meet billing and immunization reporting needs.	<u>Unique functionality</u> Unknown <u>Customizations</u> 1) vendor creates customized reports	<u>Unique functionality</u> 1) Send notes to other users and others can mark it as reviewed then it can be locked. Assists with communication across a geographically spread health unit. 2) Private lab results come in electronically. <u>Customizations</u> 1) Flow sheets for different types of

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			None			visits 2) Requisitions 3) Resource scheduling
What worked well? Where were the benefits seen? If you had to do it all again, what would you do the same?	<u>Implementation</u> 1) Dedicated program resources 2) IT involvement 3) Staff buy in by listening to their work flow needs 4) Vendor assistance (e.g., creating forms) <u>Benefits of EMR</u> 1) Great functionality 2) Adaptable to your workflow 3) Ability to make changes without vendor cost 4) Great reporting capability 5) Ability to monitor workload of providers and locations	<u>Implementation</u> 1) In person training 2) Having a clinic lead helped for staff training 3) Took some time to understand the system but once this occurred it assisted with identifying user needs <u>Benefits of EMR</u> 1) Ability to access chart offsite 2) One client record 3) Access control to view different areas of the chart 4) Data in one place assists with planning and	<u>Implementation</u> Community of sharing. <u>Benefits of EMR</u> 1) Ability of programs to collaborate 2) Ability to see metrics to make decisions about their programs 3) Believed to have helped with staffing / resource planning	<u>Implementation</u> Adopting a staged approach. <u>Benefits of EMR</u> Nurses supported e-documentation due to: 1) Functionality 2) Consistent documentation practices 3) One file for the client	<u>Implementation</u> Training everyone at same time with dummy clients to slowly learn all the functions <u>Benefits of EMR</u> 1) Ability to access chart offsite 2) Ease of communication between staff via instant messaging 3) Believed to have saved time charting and space for keeping records and to have reduced chance of human error and amount of paper used	<u>Implementation</u> All data migrated from Xwave to Accuro went through a quality assurance process <u>Benefits of EMR</u> 1) Ability to access chart offsite 2) One client record 3) User friendly 4) Ability to customize and share customizations via database 5) Provides different levels of access to different types of users

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	6) Security features	reporting 5) Ability to add new forms				
What didn't work so well? Lessons learned? If you had to do it all again, what would you do differently?	<p><u>Implementation</u></p> <p>1) Recommend to redeploy and back fill core team</p> <p>2) Have an IT person specifically dedicated to EMR</p> <p>3) Get a good understanding of capabilities of EMR and your business workflow to determine how you want to use the system (e.g., customizing roles and views)</p> <p><u>Limitations of EMR</u></p> <p>1) Poor vendor support</p>	<p><u>Implementation</u></p> <p>1) Should have had a resource with experience in implementation</p> <p>2) Virtual training didn't work well for older staff</p> <p>3) Vendor and development team in different time zones</p> <p><u>Limitations of EMR</u></p> <p>Currently, lack of integration with other systems leads to duplicate charting</p>	<p><u>Implementation</u></p> <p>1) Approach it as a corporate initiative, with a central strategic vision that has buy in</p> <p>2) With a staggered implementation, each program wanted to use it differently.</p> <p>Understand business needs and rules so have consistent use across the health unit</p> <p><u>Limitations of EMR</u></p> <p>Open source so there can be incomplete coding or testing and bugs. However,</p>	<p><u>Implementation</u></p> <p>1) Underestimated time to implement as well as challenges along the way</p> <p>2) People were not used to e-documentation in 2005.</p> <p>3) Would use past experience to design better templates</p> <p><u>Limitations of EMR</u></p> <p>EMR reporting capabilities are limited. Would spend more time on customizing this function. In addition, EMR is designed for primary care. Additional ability</p>	<p><u>Implementation</u></p> <p>1) Trainers didn't understand public health needs</p> <p>2) Vendor did not understand importance of customized reporting function – long timeline</p> <p><u>Limitations of EMR</u></p> <p>1) Time lag for support from vendor and all customizations need to be done through tech support</p> <p>2) Lab reports need to be scanned or data entered manually. Charts with scanned info are slower to open.</p>	<p><u>Implementation</u></p> <p>Train the trainer model by Xwave was stressful. Preferred Accuro's method of having a trainer on site for a week to provide training for staff plus 1:1 intensive training for super user.</p> <p><u>Limitations of EMR</u></p> <p>1) Xwave reporting function did not meet needs. Accuro's tool seems better.</p> <p>2) Xwave was inflexible and not user friendly.</p>

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			can engage the community for solutions.	to customize to public health practices would be beneficial.	3) Incompatible with mandated systems resulting in duplicate charting 4) OHIP billing feature unusable 5) Reporting functionality does not meet requirements	
Advice: Would you recommend this EMR to another health unit? Why? Would you recommend an EMR at all?	<u>Recommend an EMR?</u> Yes <u>Recommend this EMR?</u> Yes, provided you have in-house expertise to reduce reliance on vendor. Vendor support and troubleshooting is weak. You will develop greater expertise as you continue to use the system.	<u>Recommend an EMR?</u> Yes. It is an industry trend. It enables sharing of information and breaks down silos. <u>Recommend this EMR?</u> Yes. 1) Robust capability (see benefits above) 2) Ability to integrate with other systems	<u>Recommend an EMR?</u> Yes <u>Recommend this EMR?</u> Yes, provided you have resources internally to manage development, changes, and flexibility of an open source system. No formal evaluation done.	<u>Recommend an EMR?</u> Yes <u>Recommend this EMR?</u> Excited by the next generation (Nexia). Vendor will migrate data to the new system. Templates can also be migrated upon request. Look at your individual health	<u>Recommend an EMR?</u> Yes <u>Recommend this EMR?</u> Not at this time. 1) Many customizations required to make it suitable for public health 2) May not work for other program areas due to required documentation on mandated systems	<u>Recommend an EMR?</u> Yes. Electronic data is secure while paper records are not. Less paperwork and workarounds are needed. <u>Recommend this EMR?</u> Yes, see benefits above. No formal evaluation done.

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		No formal ROI evaluation. Program specific evaluation has been done.		unit circumstances to determine the best EMR for you. <u>Evaluation</u> Did an informal evaluation. Have also documented health unit's requirements/ criteria for an EMR. Also reviewed other EMRs on the market (to determine whether to stay with Nightingale or switch to a new EMR). MOH indicated PHU must use an Ontario MD certified EMR.	No formal evaluation done.	
Other Health Units that Use this EMR	Durham Algoma Porcupine Brant County	Used in the UK	Hamilton Timiskaming	None	None	None