

# OSCARCON '23

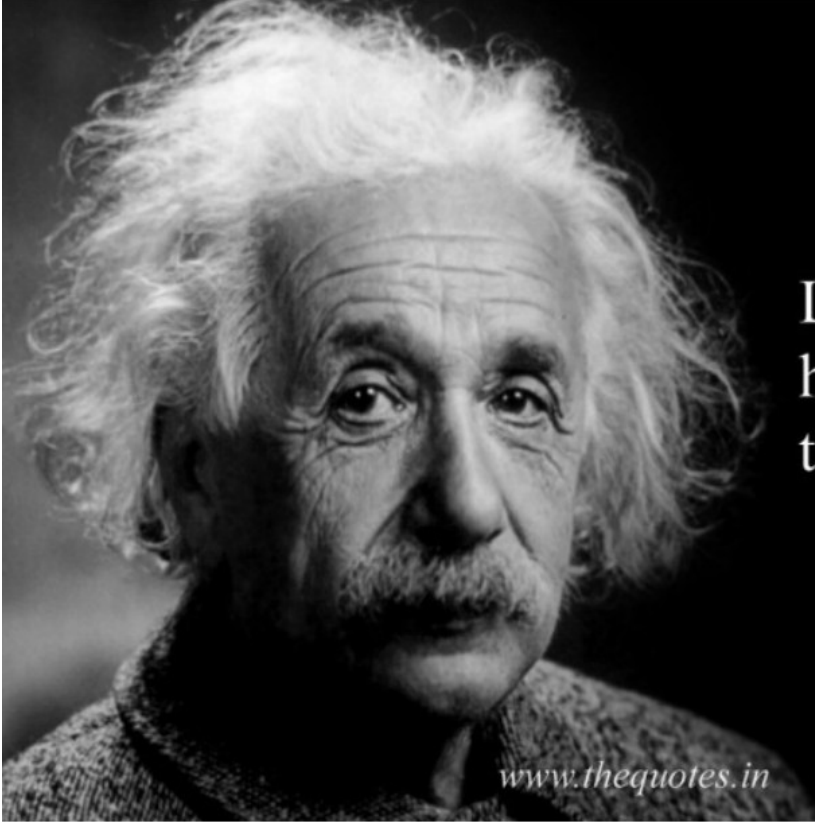
OPTIMIZING YOUR OSCAR EMR EXPERIENCE

## The Future of OSCAR

June 17, 2023

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Professor Emeritus,  
Department of Family Medicine  
McMaster University



A black and white portrait of Albert Einstein, showing his characteristic wild, white hair and mustache. He is looking slightly to the right of the camera with a thoughtful expression. The background is dark, making his face the central focus.

Learn from yesterday, live for today,  
hope for tomorrow. The important  
thing is not to stop questioning.

*Albert Einstein*

[www.thequotes.in](http://www.thequotes.in)

# Questions

- How I got here?
- What is my Open Source Journey
- Health IT – Who are the Winners & Losers?
- Why some Open Source Projects succeed?
- Who are the stakeholders for OSCAR?
- What is the future of OSCAR?
- What happened to KindredPHR and K2A?

# How I got here...

1974



1983



30 years ago, one decision altered the course of our connected world



SilverPlatter



MEDLINE

# Before OSCAR – lessons learned

- 1986: CMR 1.0 (CUHK, IBM XT clone, Advance Revelation DBMS)
  - Freeware, Australia GP Conference
  - Lessons learned: +++interests, POMR - data linkage, Common Diseases
- 1988: MUFFIN (McGill, IBM AT, Advance Revelation in Novell Network)
  - Freeware, MUFFIN workshops.
  - Lessons learned: lots of smart people out there to learn from, e.g. importance of a classification system like ICPC, name is important (MUFFIN trade marked by McGill), need for collaboration.
- 1997: MUFFIN (McMaster, PCR Incentive grant, Y2K opportunity) -> OSCAR 1.0 (Hamilton Maternity Centre, Client-Server, Internet)

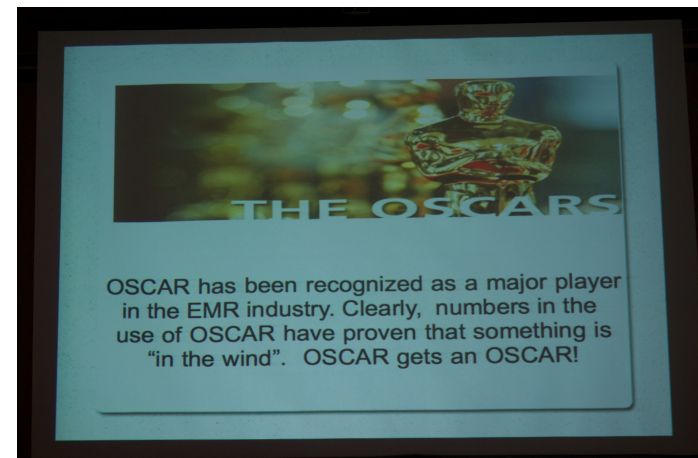
# OSCAR released at UCLA!

- OSHCA Conference – Password: mac2002 PIN 1117
- NHS Conference: "A Tale of Two Cities - It was the best of times, it was the worst of times" - Charles Dickens contrasting two cities Montreal (McGill) and Hamilton (McMaster)
  - Lessons learned: low funding often leads to innovation, collaboration though difficult but possible, FOSS licensing, lots of interests and possible for businesses to participate in.

2002



2013



# Open Source Journey

- OSCAR had been customized to meet the needs of individual healthcare organizations. McMaster's academic mission is researching ways to improve patient care and efficiency. Told by my boss - \$30 millions the five years before I retire in 2016. Major projects include PHR, K2A, and OSCAR.
- OSCAR is generally more inexpensive than proprietary solutions. It has been deployed by low resource communities, e.g. the shelter health network, Hamilton refugee clinic, and I am Able – YMCA Rehab clinic.



# Open Source Journey

- OSCAR attracted many collaborators, e.g. Brazil government committed 6 programmers leading to i18N language compliance and back-end database independence.
- McMaster did not have the necessary technical know-how to create the project to what it is today.
- But the main asset we have is the community of healthcare professionals and developers, which can lead to better outcomes for patients, e.g eForm and Listserv as a sharing platform

# Health IT – Who are the Winners & Losers?

- Where are they now? Clinicare, PN&P, MacMedical, sale of Practice Solution to Telus who now owns PS Suite, Nightingale, KinLogix, MedAccess, Medesync, and Wolf; Loblaw to own QHR – then sold to Shoppers in 2016...
- OSCAR – despite lack of certification in BC, OSCAR is still one of the most popular EMR from BC -> PEI

# Why some Open Source Projects succeed?

## What would ChatGPT say?

- Clear Purpose and Vision
- Active and Engaged Community – Git, Eclipse IDE
- Quality and Reliability – Linux, Ubuntu, Linuxmint, Firefox, Python
- Effective Leadership - Apache Software Foundation, Linux
- Documentation and Support – Linux, Ubuntu, Linuxmint, WordPress
- Open and Inclusive Culture - WordPress
- Licensing
- Integration and Interoperability – FireFox, TensorFlow
- Marketing and Promotion

# Who are the stakeholders for OSCAR

- You the Users, especially the Super-Users!
- eHealth Agencies
- OSCAR Service Providers
- Academic Researchers
- Integration Product Developers
- Patients, especially in Low resource communities
- Education Institutions

# Current State - according to OpenAI

- The healthcare industry is facing a number of challenges, including rising costs, an aging population, and an increasing burden of chronic diseases.
- Technology can help address some of these challenges by improving efficiency, reducing costs, and enabling better patient outcomes.
- EMRs are a key component of healthcare technology, and are likely to play an increasingly important role in the future of healthcare.

# OSCAR Forks

- OSCAR Forks are not new! Where are they now? (e.g. OSCAR USA, Indivica, ...)
- Good Forks – eye on special needs of communities and patients they served and not market share
  - e.g. OpenOSP.ca (\*I am on the board of directors)
- Engaging the community and willingness to share code
- Beware of the Proprietary “Hooks”, some examples
- Protect your patients' PHI
- Innovation involving the OSCAR Community (especially health care contributors)

# Future of OSCAR – help from OpenAI

- There will always be a community devoted to the Open Source EMR
- They are committed to ongoing development and improvement, with a focus on meeting the evolving needs of healthcare organizations and providers.
- OSCAR is committed to maintaining the highest standards of security and privacy, to ensure patient data is protected at all times.
- OSCAR is committed to fostering collaboration and knowledge sharing, both within the OSCAR community and with the wider healthcare industry.

# OSCAR Future

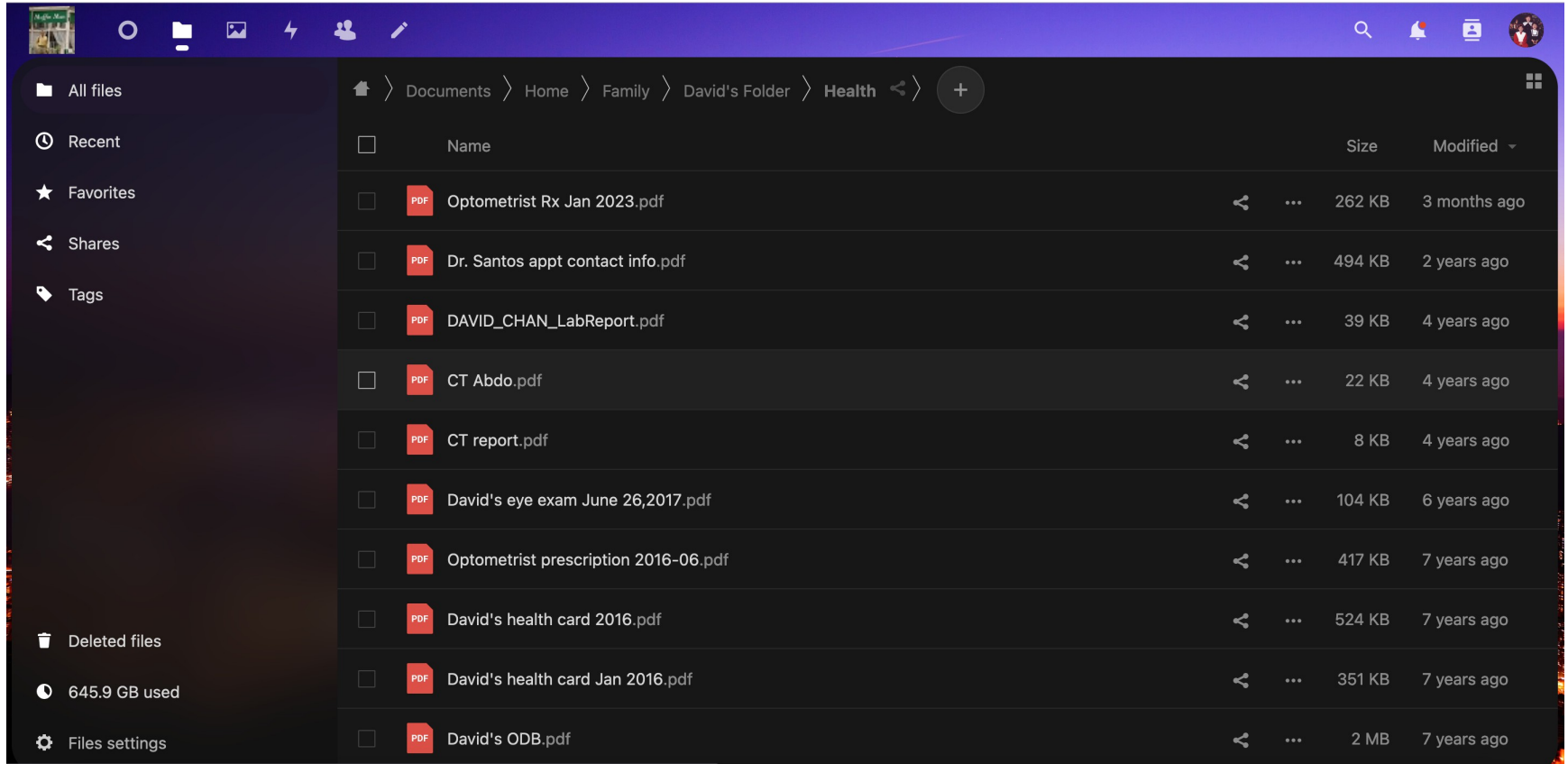
- Failure of the new User Interface – lesson learned
- Failure of OSCAR-EMR governance structure
- Still a vibrant user/developer community!
- What happened to KindredPHR and K2A?
- KindredPHR 2.0?
- Know2Act 2.0?



# KindredPHR

- A Personally Controlled Health Record (I learned it from my friends at MIT: <https://tinyurl.com/2p826ttt>)
- MyOSCAR (code repository still available)
- KindredPHR (now proprietary but may soon be available)
- What's next? NextCloud?
- Key development: FHIR standards, OpenID, Digital Notary...)
- Small Data vs Big Data (Deborah Estrin 3:17min)  
<https://youtu.be/Fzko23q9yD0>
- OSCAR is the pathway to a PCPHR and K2A success!

# A Personal Testimony



# A Personal Testimony

	A	B	C	D	E	F	G	H	I
1	Date	(lb)	Vomiting	Nausea	Fatigue	NOTES: Summaries			
2	SEPT 5, 2018	160.8	0	0	0	Peak weight			
3	10-26-2018 Fri	158.5	10	10	10				
4	10-27-2018	152.5	9	9	10				
5	10-28-2018	151.9	8	8	9				
6	10-29-2018	152.7	0	5	7				
7	10-30-2018	153.4	0	5	6				
8	10-31-2018	153	0	4	5				
9	11-1-2018	153.1	0	1	4				
10	11-2-2018	152.7	0	0	3				
11	11-3-2018	153.4	0	0	2				
12	11-4-2018	154.7	0	0	1				
13	11-5-2018	1553.8	0	0		1 Cycle 1: 12 days			
14	11-6-2018	155.4	0	0		1 Vomited 3 days			
15	11-7-2018 Wed	155.9	10	10	10				
16	11-8-2018	149	10	10	10				
17	11-9-2018	148.6	9	10	9				
18	11-10-2018	148.7	8	10	9				
19	11-11-2018	150.8	0	8	5				
20	11-12-2018	148.5	0	7		5 Cycle 2: 7 days			
21	11-13-2018	149.6	0	6		5 Vomited 4 days			
22	11-14-2018 Wed	150.4	10	10	10				
23	11-15-2018	145.4	9	10		9 Dr. Sju house call, LAB1			
24	11-16-2018	144.3	7	10		8 Abdo USS			
25	11-17-2018	145.5	0	5		2 Cycle 3: 5 days			
26	11-18-2018	146.5	0	4		2 Vomited 3 days			
27	11-19-2018 Mon	149.6	10	10	10				
28	11-20-2018	144	8	10		10 Endoscopy+GI			
29	11-21-2018	142.2	0	5		8 CT Head			
30	11-22-2018	143.6	0	2		4 Cycle 4: 5 days			

# KindredPHR

- Portals
  - Provider owned
  - Primarily read only
  - Often lacks knowledge translation
- Personally Controlled Personal Health Record
  - Patient owned and controlled who can access
  - Data integration from a variety of sources
  - Potential for deployment of “Apps” for health and disease management

# KindredPHR

- be controlled by the person who decides which parts of their PHR can be accessed, by whom and for how long
- contains information from cradle-to-grave
- contains copies of information from multiple health and wellness care providers
- be accessible from any place at any time
- be private and secure
- be transparent (auditable)
- enables exchange of information with other health information systems and health/wellness professionals
- allows users to personalize experience with context-specific apps and evidence-based content



# KindredPHR

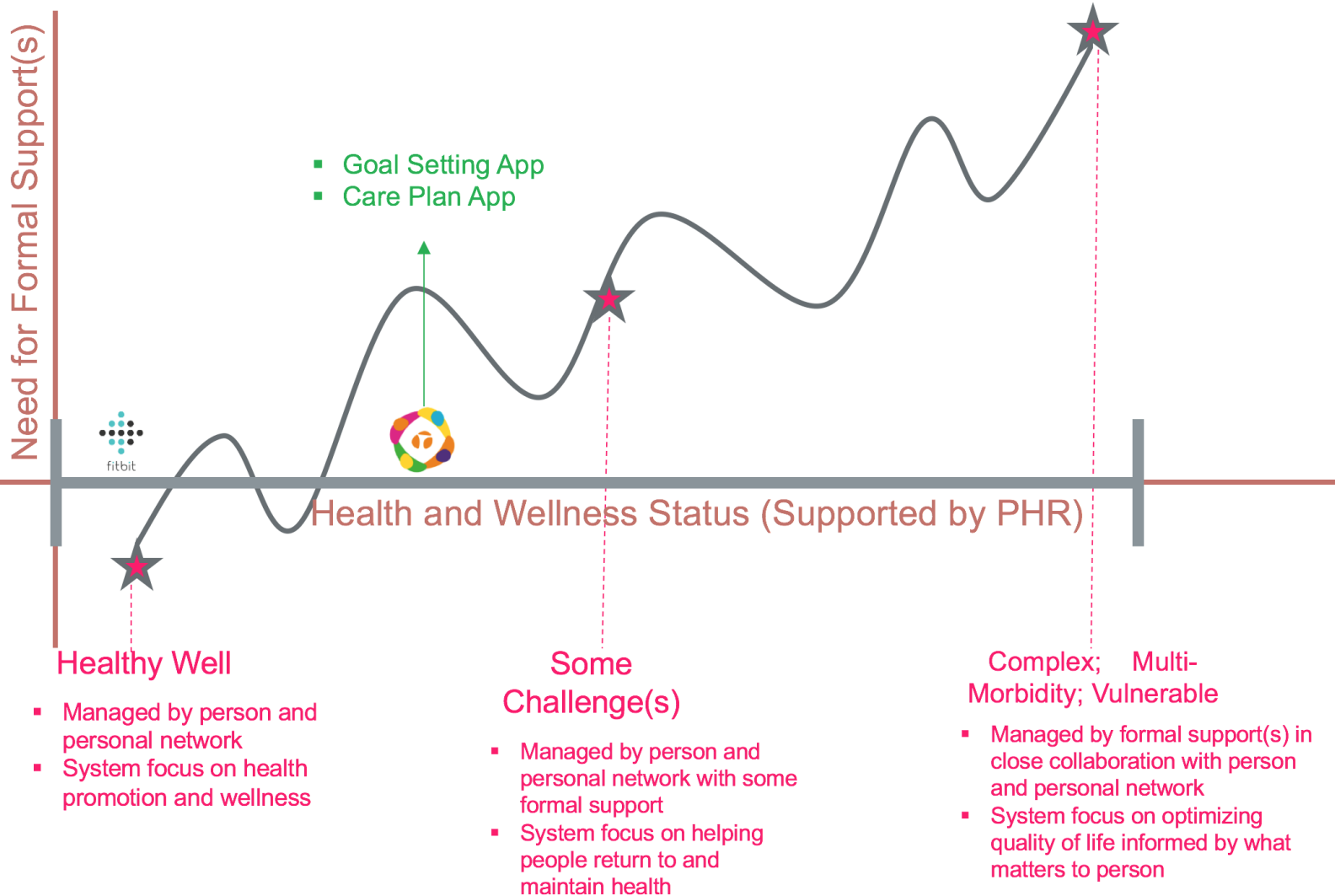
- Captures the holistic context contributing to the health of an individual:
  - Living Environment
  - Social Environment
  - Psychological Environment
- While connecting the individual to their formal health and wellness service providers:
  - Secure messaging
  - Appointment booking
  - Sharing health Information



# A Continuum of Relationships and Tools

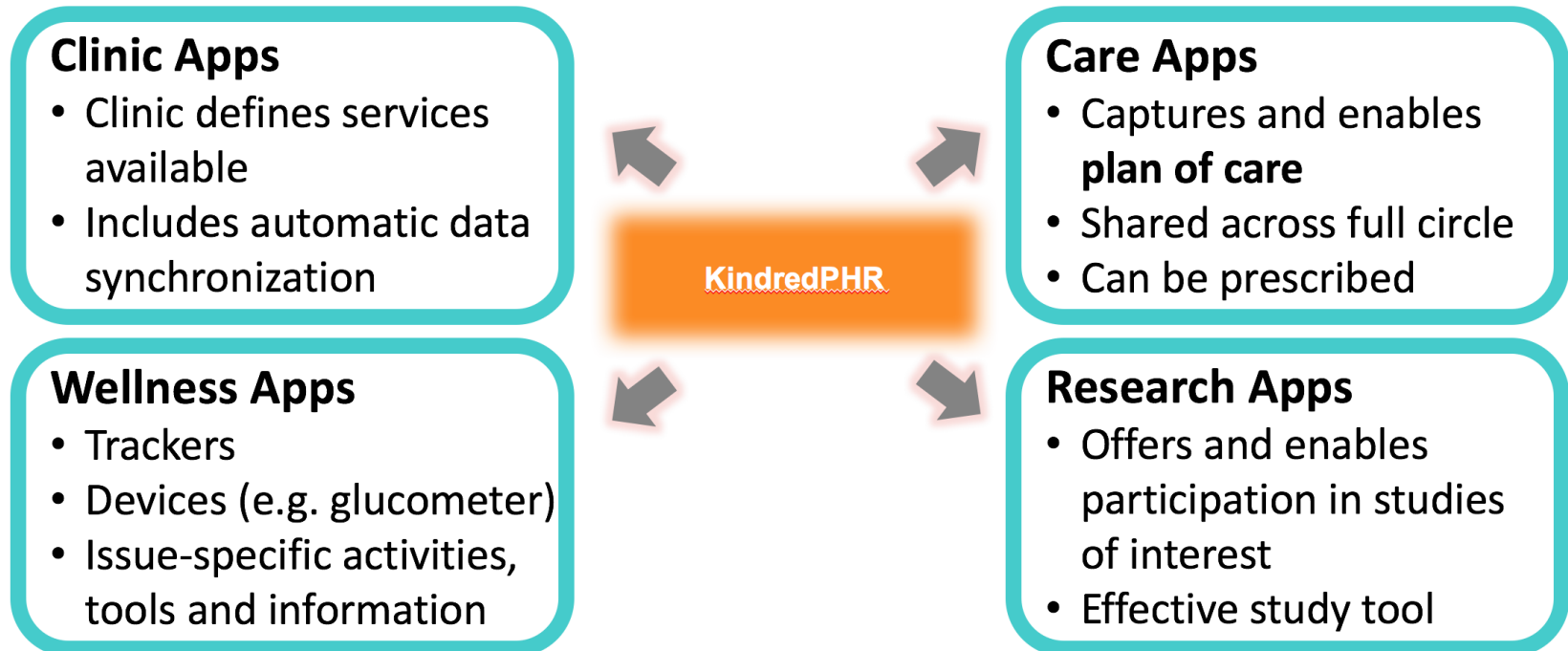
## KindredPHR

- Profile
- What Matters to Me
- Concerns
- Connections (who helps me and who I help)
- Medications
- Immunizations
- Allergies
- Secure Messaging
- Document upload, storage and sharing
- Electronic data sharing (IHE)



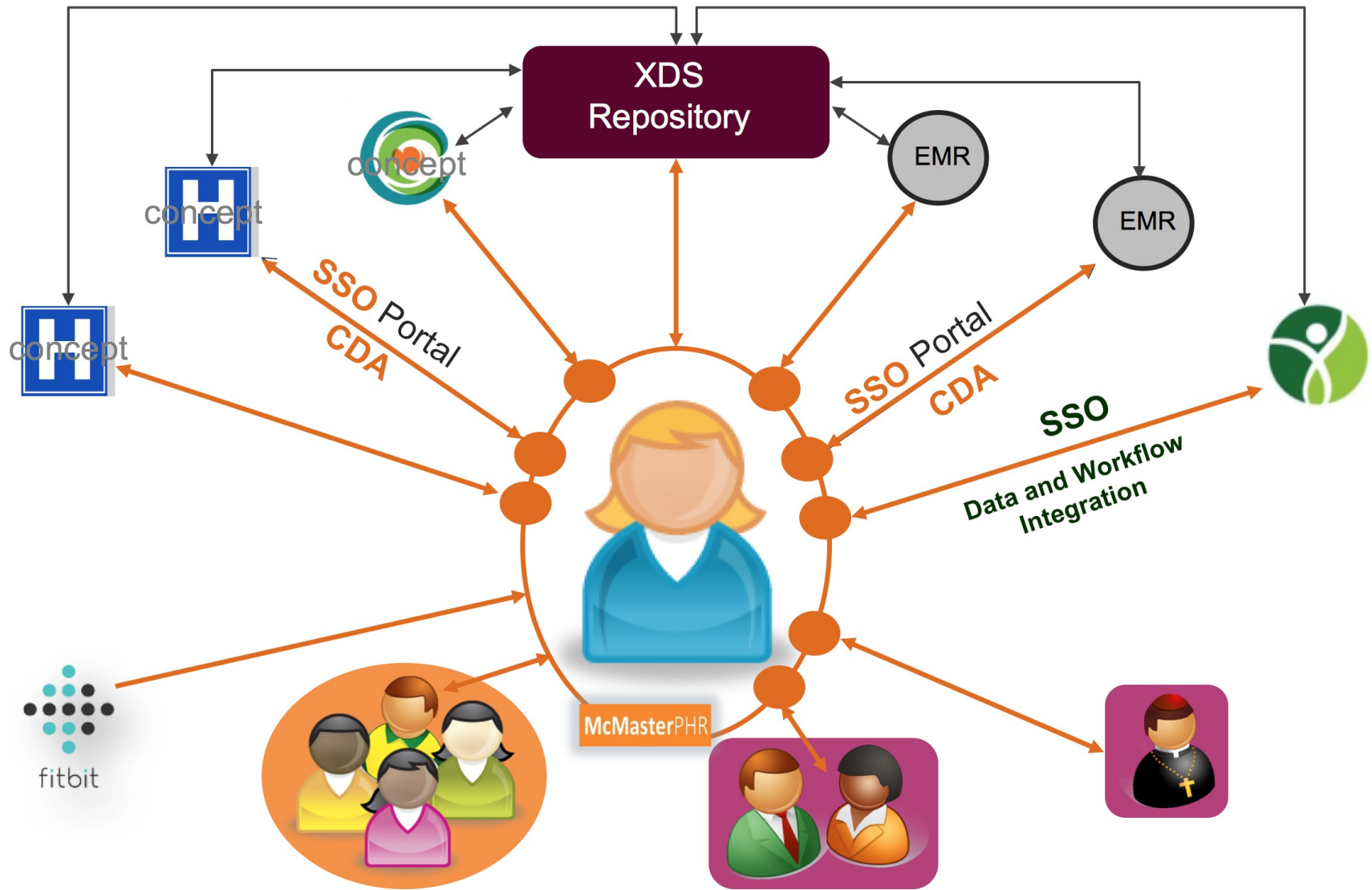
# PHR Apps












Through the PHR, patients can subscribe to a variety of Apps to enhance their healthcare experience and management of their own health.





# More than a Portal



-  David Chan 
-  Compose Message
-  Book Appointment
-  Add Connection
-  Home
-  Chart 
-  Calendar 0
-  Messages 0
-  Connections
  - Supporters 2
  - Supporting 0
  - Requests 0

## Welcome David Chan

### Recent Activity

### Supporting

### Upcoming Events

[View Calendar](#)

### Health Service Organization

### Health Service Organization News



kindredPHR

BOOK APPOINTMENT

SEND MESSAGE

ADD CONNECTION

Home

Chart

Calendar 8

Mailbox 1

**Connections 8**

Wellness Apps

Discussion Groups



# Connections

Relationship View

## Connections Updates


- Sarah Sm1th added pollen to list of allergies. Today
  - McMaster Family Practlce changed their opening hours. Today
  - Sarah Sm1th downloaded Bant. Yesterday
  - Ken Smith added a new medication. 3 days ago
  - Sarah Sm1th added Mary Sm1th as a connection. 1 week ago
  - John Smith added Nike+ Fuel to his Wellness Apps. 1 week ago
- [View Activity Log](#) >

## Connection Request(s)


- 
**Mary Smith**  
 Family/Friend
- 
**Thomas Wright**  
 Family/Friend

 Add Connection

- Frequently Contacted
- Healthcare Providers
- Dependents
- Family & Friends
- All Connections




**Kent Smith**  
Family/Friend



**Leah Smith**  
Daughter  
Dependent



**Patricia Kelly**  
Family/Friend



**Lisa Smith**  
Family/Friend

# Connection Request



**John Smith**



**Mary Smith**  
Family/Friend

Mary Smith is my

## Mary Smith is allowed:

- Chart access  
*Permission to either view my chart or, view and edit my chart (you can specify which sections in the next step)*
- Full account management access  
*Permission to manage my account on my behalf with full access to edit all information within my Chart, Calendar, Mailbox, Connections, Wellness Apps and Discussion Groups.*

Next



kindredPHR

BOOK APPOINTMENT

NEW MESSAGE

ADD CONNECTION

Home

Chart 2

Calendar 8

Mailbox 1

Connections 2

Wellness Apps

Discussion Groups

# Mailbox

New Message

Search Mailbox



Inbox (19)

Sent



Mark as

1-30 of 31



The message has been sent



<input type="checkbox"/>	Sarah Smith	Update Thank you for your concern	10:17am
<input type="checkbox"/>	Sarah Smith	Re: Update Thank you for your concern	May 1
<input type="checkbox"/>	Lisa Smith, Kevin...	This is the subject Lorem ipsum dolor sit amet, consecetur adi...	Mar 30



# K2A - Knowledge Translation System

## Know2Act: CDSS\*

Integrated with EMR

Knowledge only from user-trusted sources

Appears in EMR only when matches context based on criteria set within content post

Ability to provide feedback on content, to enrich knowledge sharing

Founded on the premise each user is self-governing and fully responsible for determining who is to be trusted to inform her/his care decisions

\*Computer Decision Support System



# Knowlege2Action

## **Know2Act:** Actionable Knowledge at Point of Care

- Knowledge only from you and sources you trust
- Appears in EMR only when matches patient context
- Ability to comment on others' posts to enrich knowledge sharing and feedback
- Clinic can be a “Sponsor”, ensuring all providers are linked with content trusted by the clinic as means to facilitate standards-based approach to improved quality of practice



**Know2Act**  
knowledge at your fingertips



Department of  
**Family Medicine**



# Examples – register at:

<https://know2act.org/login.jsp>

- **Clinical calculators**

- CVD Risk calculator: <https://know2act.org/#/ws/rs/posts/6502>
- Atrial Fibrillation and Anticoagulation Decision Support <https://know2act.org/#/ws/rs/posts/6592>
- Parkinson's Disease Diagnosis <https://know2act.org/#/ws/rs/posts/6157>

- **Chronic Disease Management**

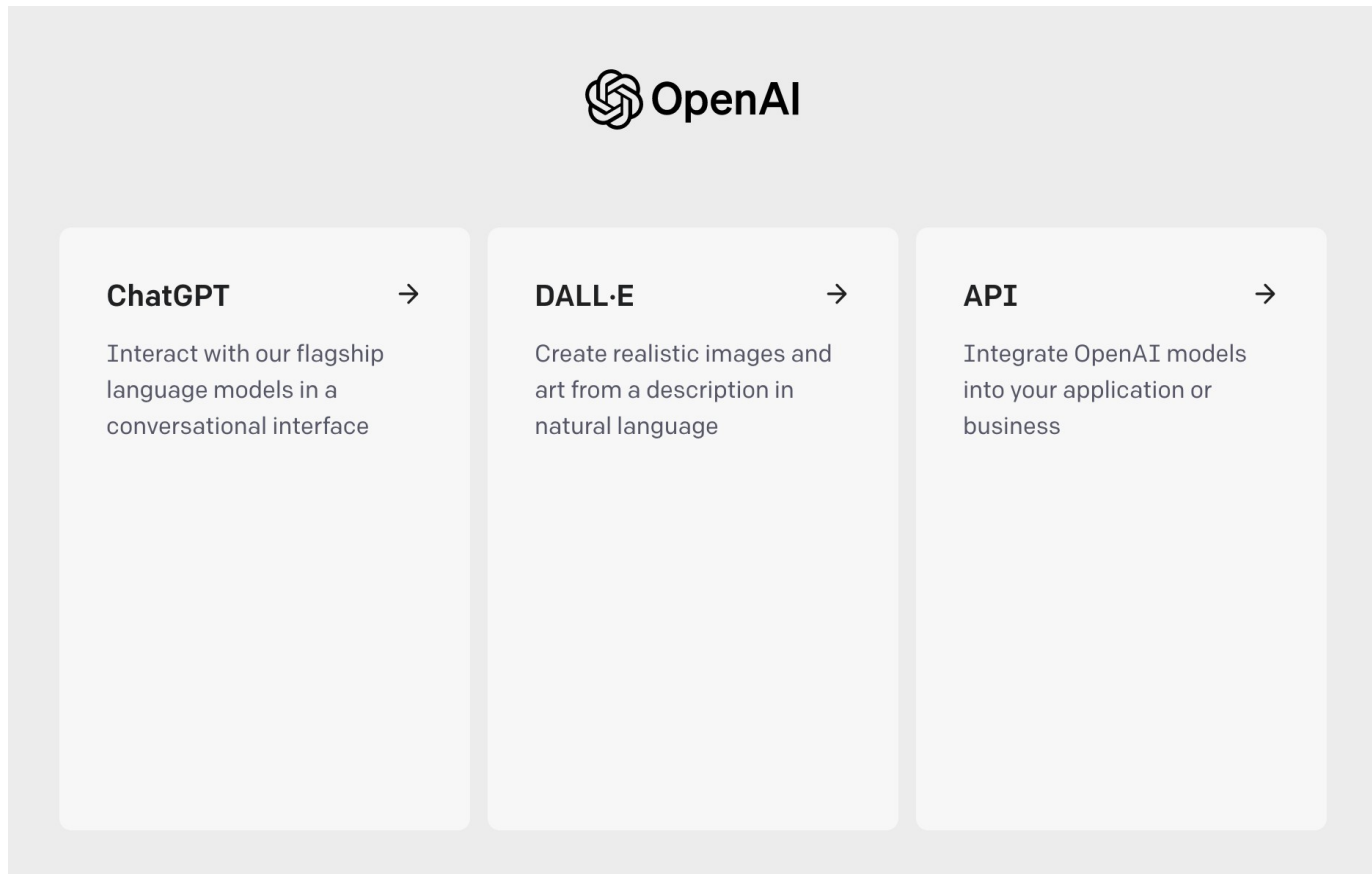
- COPD Flowsheet <https://know2act.org/#/ws/rs/posts/6673>
- RBT for Narcotics <https://know2act.org/#/ws/rs/posts/7221>

- **Drug Warning**

<https://know2act.org/#/ws/rs/posts/browse/Warning>

# Future – What About AI?

- OpenAI – openai.com



# IBM and Hamilton Health Sciences Announce Collaborative Research Initiative

Accelerating healthcare innovation will make Hamilton a knowledge-worker hub

[Info Hub](#)

**[News releases](#)**

[Info Hub archives](#)

[News release archives](#)

**MARKHAM, and HAMILTON, ON** – 8 March 2016: IBM (NYSE: [IBM](#)) and Hamilton Health Sciences (HHS) are joining forces to help area hospital clinicians, researchers, academics and entrepreneurs accelerate the development and commercialization of new healthcare innovations.

The two announced today plans to establish a new centre in downtown Hamilton focused on healthcare innovation. The centre – with both a physical and virtual collaboration space – will give area healthcare providers, researchers, innovators and entrepreneurs advanced technology tools and expertise to improve healthcare outcomes and put Hamilton on the map as a hub for healthcare innovation in Canada. The target location for the centre is 100 King Street West. More than 300 HHS administrative staff will also move in to the same location this fall.

“Hamilton is among the top cities in Canada for health research innovation. When you combine that with the entrepreneurial spirit of our city, the possibilities are endless,” said Hamilton Mayor Fred Eisenberger, “This partnership is proof of the growing platform we have here to launch new ideas and turn them into new products that improve health care and create the jobs of tomorrow.”

IBM is contributing access to an array of its Watson cognitive and analytics software, expertise in cloud computing and high-performance computing infrastructure, and a network of global collaborators. HHS, with its cadre of more than 1,500 principal investigators and research staff, provides practical industry expertise and a “real-world” test environment.

“Healthcare is facing tremendous challenges, and so we have to innovate in order to be sustainable,” said Rob MacIsaac, president & CEO, HHS. “We’re creating an innovation space that will attract others to bring their ideas and solutions to the table for deployment across our healthcare system. This multidisciplinary approach to innovation is the way of the future providing opportunities to transform healthcare in Hamilton, in Ontario, and potentially around the world.”

In two of the first projects, IBM and HHS will test how IBM Watson cognitive and analytics capabilities can be applied to HHS’ existing decision-support database, to provide insight into how patients use the healthcare system; they will also explore introducing a mobile component to add functionality and scalability to HHS’s early warning system, which electronically monitors a patient’s vital signs for subtle changes indicative of a worsening condition or pending medical event.

# An open source machine learning framework for everyone

[GET STARTED](#)

## Get started with TensorFlow

There are new tutorials to get started with Tensorflow using `tf.keras` and eager execution. Run the Colab notebooks directly in the browser.

[GET STARTED](#)

## TensorFlow 1.9 is here!

TensorFlow 1.9 is available, see the release notes for the latest updates.

[LEARN MORE](#)

## Announcing TensorFlow.js

Learn about our JavaScript library for machine learning in the browser.

[LEARN MORE](#)

## About TensorFlow

TensorFlow™ is an open source software library for high performance numerical computation. Its flexible architecture allows easy deployment of computation across a variety of platforms (CPUs, GPUs, TPUs), and from desktops to clusters of servers to mobile and edge devices. Originally developed by researchers and engineers from the Google Brain team within Google's AI organization, it comes with strong support for machine learning and deep learning and the flexible numerical computation core is used across many other scientific domains.



# How do I diagnose Parkinson's Disease in an 80 year old?

- **ChatGPT:** Parkinson's disease is a complex neurological disorder that affects movement, speech, and other bodily functions. Diagnosis of Parkinson's disease typically involves a thorough medical history and physical examination by a neurologist or movement disorders specialist. Here are some steps that a doctor may take to diagnose Parkinson's disease in an 80-year-old:

Medical History: The doctor may ask about the patient's symptoms, when they started, and how they have progressed over time. They may also ask about any family history of Parkinson's disease.
- **Physical Examination:** The doctor will perform a physical examination to assess the patient's movement, balance, coordination, and reflexes. They will also look for any visible signs of Parkinson's disease, such as tremors or stiffness in the limbs.

# How do I diagnose Parkinson's Disease in an 80 year old?

- **ChatGPT:** (cont'd) Assessing symptoms: The doctor may ask specific questions about symptoms such as tremors, rigidity, bradykinesia, and other Parkinson's disease symptoms.

Additional Testing: The doctor may recommend additional testing, such as brain imaging or blood tests, to help rule out other conditions that may mimic Parkinson's disease.

Response to medication: Parkinson's disease symptoms typically respond to medication. If the doctor suspects Parkinson's disease, they may prescribe medication and monitor the patient's response.

# How do I diagnose Parkinson's Disease in an 80 year old?

- **HippoAI** (<https://www.hippoai.org/>): The diagnosis of Parkinsons disease (PD) in an 80-year-old patient follows the same diagnostic criteria as for any other age group. The diagnosis is based on clinical features, including the presence of bradykinesia (slowness of movement), rigidity, tremor, and postural instability. However, the presence of red flags may suggest atypical disease or secondary parkinsonism, and brain CT or MRI should be considered to identify the type of parkinsonism and treatment approach. Additionally, imaging modalities such as 123Iioflupane (123IFPCIT) single-photon emission computed tomography (SPECT) scanning may be considered as an aid to clinical diagnosis in patients where there is uncertainty between Parkinson disease and nondegenerative parkinsonism or tremor disorders. Therefore, a thorough clinical evaluation **by a specialist** is recommended to make an accurate diagnosis and determine the appropriate treatment approach.

# How do I diagnose Parkinson's Disease in an 80 year old?

- Know2Act (<https://know2act.org/#/ws/rs/posts/6157>):

Regidity and Bradykinesia	History	4.50	0.12	0.90	0.80
Face less expressive	History	2.10	0.54	0.62	0.71
Difficulty rising from chair	History	1.90	0.58	0.60	0.68
Loss of balance	History	1.60	0.29	0.87	0.46
Shuffling gait	History	3.30	0.32	0.75	0.77
Trouble turning in bed	History	13.00	0.56	0.46	0.96
Trouble opening jars	History	6.10	0.26	0.77	0.87
Micrographia	History	2.80	0.44	0.66	0.76
Inability to walk heel to toe	Physical	2.90	0.32	0.76	0.74
Glabella tap	Physical	4.50	0.13	0.90	0.80

[Edit Post](#) [Remove Post](#)

[0 Agree](#) [0 Disagree](#) [0 Comments](#)

[Save Comment](#)

**Pre and Post-test Probability**

Pre-test Probability

Post-test Probability

[Reset Form](#)

**Diagnostic Tests**  
Likelihood Ratios of individual test shown as [LR (95% confidence intervals)] for Yes [LR+] and No [LR-]

**History**

Tremor (arms or legs shake)  
Yes  No   
LR+: **1.4** LR-: **0.25**

Regidity and Bradykinesia  
Yes  No   
LR+: **4.5** LR-: **0.12**

Face less expressive  
Yes  No   
LR+: **2.1** LR-: **0.54**

Difficulty rising from chair  
Yes  No   
LR+: **1.9** LR-: **0.58**

Loss of balance  
Yes  No   
LR+: **1.6** LR-: **0.29**

Shuffling gait  
Yes  No   
LR+: **3.3** LR-: **0.32**

Trouble turning in bed  
Yes  No   
LR+: **13.0** LR-: **0.56**



- MAM
- FIT/FOBT
- HZV
- RZV
- Tickler** +
- Disease Registry** +
- DIABETES MELLITUS\* ... 30-Jul.-2018
- Forms** +
- eForms** +
- Ontario Lab: ... 29-Mar.-2023
- Ontario Lab: Please fax res... 14-Jun.-2022
- Documents** +
- Lab Result** +
- Messenger** +
- Measurements** +
- CDM Indicators
- Health Tracker
- Diabetes Flowsheet
- Body Mass Index ... 29 12-Nov.-2020
- Consultations** +
- HRM Documents** +

Ongoing Concerns	Reminders

- Allergies** +
- Medications** +
- Other Meds** +
- Risk Factors** +
- Family History** +
- Unresolved Issues** +
- Resolved Issues** +
- Decision Support Alerts** +
- Osteoporosis screen
- Osteoporosis screen
- Episodes** +
- Health Care Team** +

park |  UpToDate  Calculators

- Parkinson Disease (new)

[21-May-2019 .:]    
 Editors: Chan, David; Encounter Date: 21-May-2019 10:56 Rev 1  
 Assigned Issues Enc Type:

Ontario Lab : Please fax results to Dr. Chan Fax 19055301827 Encounter Date: 14-Jun.-2022 21:26 [View](#)  
 Ontario Lab : Encounter Date: 29-Mar.-2023 12:38 [View](#)

[21-May-2019 .:]

1. Inquiry re at least two of following?  
 shortness of breath  
 swollen ankles  
 paroxysmal nocturnal dyspnea  
 exercise intolerance
2. Current medication list? [HA2 ]>
3. Chest exam?
4. Weight recorded on at least 50% of visits?
5. Blood pressure?
6. Comment on ankles OR jugular venous pressure (J.V.P. or J.V.D.)?
7. Heart rate AND rhythm?
8. ECG within 1 year prior OR within 2 weeks after first diagnosis?
9. IF on diuretics, electrolytes done on 50% of visits?
10. BUN done on 50% of visits?
11. Hemoglobin OR indices (hematocrit, MCV, MCHC) done on 50% of visits?
12. Diuretics prescribed?
13. IF on diuretics, amount and duration recorded?
14. Rest recommended?
15. Advice re diet (eg. low salt)?
16. Follow-up weekly until physician notes "improved" or "stable"?

# Covid Monitoring Record



## Community COVID19 Ward Monitoring



### INSTRUCTIONS:

- This form is to be started when a patient has received a positive result on a COVID-19 test and will be monitored and managed by primary care.
- When saved, the form will appear in the left column on the patient's OSCAR eChart as "COVID Monitoring Record".
- **It is important the same form is used for each monitoring visit.** To do this, open the patient's eChart and open the same form again from the left menu.
- **If you save a change to this form and close it, you must refresh the patient's eChart before opening this form again in order to see the changes you made.**

## Risk Level

See Guide to Risk Assessment

<input type="radio"/> High	<input type="radio"/> Average	<input type="radio"/> Low
<b>MONITOR</b> Daily for at least 14 days	<b>MONITOR</b> Every 2 days x 8 days; then recommend self-monitor for additional 7 days depending on progress	<b>MONITOR</b> Consider self-monitoring only; check-ins determined by individual patient. (Consider at 7 days)

## Isolation and Contact Tracing

Test Data and Isolation Period



### [Covid Monitoring Record](#)

20.35 KB 184 downloads

[DOWNLOAD](#)

Covid Monitoring Record e-form and Report by Template to find active records.

# POST-COVID-19 RECOVERY CLINIC REFERRAL 2020



## POST-COVID-19 RECOVERY CLINIC REFERRAL



Form ID: MSXX107426A

Rev: December 2020

Page: 1 of 2

### Referral Date: \_\_\_\_\_

**NOTE:** Referrals will only be accepted for **confirmed COVID positive patients or Official Epi-Linked Cases (refer to BCCDC)**. The Post-COVID-19 Recovery Clinics are designed to see patients at **3 or more months post-symptom onset**. This referral is **NOT** for cases requiring urgent care.

This referral will be triaged (see below). We will inform patients of any scheduled appointments. For specific wait times, please refer to Pathways. If you require further support or have questions regarding your post-COVID patient, please request advice from "COVID - GIM Post Infection Care" via the RACE app: <http://www.raceconnect.ca/race-app>

### REFERRING CLINICIAN

Name: \_\_\_\_\_ MSP Number: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email Address: (to participate in care conferencing-billing code #14077) \_\_\_\_\_  
**FAMILY PHYSICIAN:** (if different from referring clinician) \_\_\_\_\_  
 MSP Number: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email Address: (to participate in care conferencing-billing code #14077) \_\_\_\_\_

### PATIENT INFORMATION

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_ Middle Initial: \_\_\_\_\_  
 PHN: \_\_\_\_\_ DOB: (dd/mm/yyyy) \_\_\_\_\_ Gender: Male Female  
 Patient address: \_\_\_\_\_ Other: \_\_\_\_\_  
 City / Town: \_\_\_\_\_ Postal Code: \_\_\_\_\_  
 Patient phone number: \_\_\_\_\_ Email: \_\_\_\_\_  
 Alternate Contact - Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Relationship to patient: \_\_\_\_\_  
**Is a translator required?** No Yes If YES, language: \_\_\_\_\_  
**Patient's preferred clinic site:** SPH VGH JPOCSC

### RBT - Immunization Card (+optional GM/TM script)

7.52 KB 3

DOWNLOAD

Activities	No Difficulty	A Little Bit of Difficulty	Moderate Difficulty	Quite a Bit of Difficulty	Extreme Difficulty or Unable
1. Any of your usual work, household, or school activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Your usual hobbies, recreational or sporting activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Getting into or out of the bath	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Walking between rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Putting on your shoes or socks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Reaching	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Lifting or object like a bag of groceries from the floor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Performing light activities around your home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Performing heavy activities around your home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Getting into or out of a car	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Walking 2 blocks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Walking a mile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Going up or down 10 stairs (about 1 flight of stairs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Standing for 1 hour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Sitting for 1 hour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Reaching an upper cabinet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Reaching an upper cabinet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Walking three blocks while carrying a bag	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### Lower Extremity Functional Score (LEFS) eForm

12.72 KB 0

DOWNLOAD

Patient name: \_\_\_\_\_ Date: \_\_\_\_\_

**Patient Performance Status**

0 - **Asymptomatic:** Fully active, able to carry on all pre-disease activities without restriction.

1 - **Symptomatic but completely ambulatory:** Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature. For example, light household, office work.

2 - **Symptomatic - < 50% in bed during the day:** Ambulatory and capable of all self care but unable to carry out any work activities. Up and about more than 50% of waking hours.

3 - **Symptomatic - > 50% in bed, but not bedbound:** Capable of only limited self care, confined to bed or chair 50% or more of waking hours.

4 - **Bedbound:** Completely disabled. Cannot carry on any self care. Tightly confined to bed or chair.

5 - **Death**

ECOG Performance Status: Previous ECOG: \_\_\_\_\_ Previous Date: \_\_\_\_\_

# Vaccine Passport using PHR

- The importance of TRUST
- Where is the data?
- How is it linked with other data, e.g. Insurance, travel history, not having paid tax etc.
- Introducing Digital Notary System – Open Source Project
- Need more? There is the Block Chain!

# Health or Social Service Provider

**Any EHR, EMR or Other  
point of care eHealth  
System**



**Know2Act**

actionable knowledge for health and wellness

- Point of Care Decision Support
- Collaboration Tool for Quality

## Clinic Apps

- Clinic defines services available
- Includes automatic data synchronization

## Wellness Apps

- Trackers
- Devices (e.g. glucometer)
- Issue-specific activities, tools and information



**kindredPHR**

## Care Apps

- Captures and enables plan of care
- Shared across full circle
- Can be prescribed

## Research Apps

- Offers and enables participation in studies of interest
- Effective study tool

**Collaborative,  
Trusted Content  
Network**

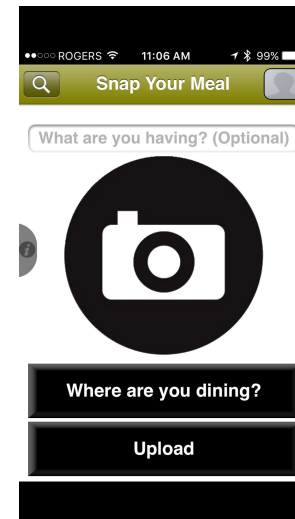


**TAPESTRY**

**Person and Support Network**

# Internet of Things

- It's a highly connected world
  - Wearable devices
  - Social Networks
  - Smart phones
- eDosette
  - Medication management is complex
  - More than a “smart” device
  - Connecting patients
- Vaccine TempLogger
  - Protecting an important and expensive resource
  - Protecting people
- My Food Diary
  - 3-day food record
  - Mood, location, and portions are all important
  - Building up a library of nutritional facts (K2A)



# Summary

- eHealth is about Health
  - What's the Evidence?
  - Should be based on robust studies by clinical scientists
  - “Investments” should be based on Clinical Benefits
- Software is not about Codes
  - It's about the Community
  - Designed by users
  - Freedom but based on common standards
- It's more blessed to give than to receive
  - Homeless in Toronto
  - Drug Addicts in Vietnam
  - Connecting “Haves” to “Have not's”

# Resources

- <https://oscargalaxy.org/> (please join)
- The Cathedral and the Bazaar (Eric Raymond)
- Open Sources: Voices from the Open Source Revolution (O'Reilly publisher)
- The Success of Open Source (Steven Weber)
- The Future of Ideas: the Fate of the Commons in a Connected World (Lawrence Lessig)
- [http://en.wikipedia.org/wiki/Open\\_source](http://en.wikipedia.org/wiki/Open_source)
- <http://oscaremr.blogspot.com/>
- <http://kindredphr.blogspot.com/>
- <http://know2act.blogspot.com/>



# OSCAR 2.0 in Nextcloud

- EHR App: <https://apps.nextcloud.com/apps/ehr>
- Integration with OSCAR:  
<https://apps.nextcloud.com/categories/integration>
- Projects:
  - FHIR server
  - OSCAR integration
  - KindredPHR integration
  - K2A integration
  - IoT integration (try Pico W)

# Using OpenAI to write code

- Micropython code to read cpu temperature and send to Nextcloud (Pico W controller board \$18). Code:
- # Nextcloud server configuration
- NEXTCLOUD\_URL = "https://your-nextcloud-url.com"
- USERNAME = "your-username"
- PASSWORD = "your-password"
- 
- # Connect to Wi-Fi network
- WIFI\_SSID = "your-wifi-ssid"
- WIFI\_PASSWORD = "your-wifi-password"

# Using OpenAI to write code

- Micropython Code:
- ```
def connect_wifi():
```
- ```
    sta_if = network.WLAN(network.STA_IF)
```
- ```
    if not sta_if.isconnected():
```
- ```
        print("Connecting to Wi-Fi...")
```
- ```
        sta_if.active(True)
```
- ```
        sta_if.connect(WIFI_SSID, WIFI_PASSWORD)
```
- ```
        while not sta_if.isconnected():
```
- ```
            pass
```
- ```
    print("Wi-Fi connected!")
```
- ```
    print("IP address:", sta_if.ifconfig()[0])
```

# Using OpenAI to write code

- Micropython Code:
- `def read_cpu_temperature():`
- `adc = machine.ADC(0)`
- `adc atten(machine.ADC.ATTN_11DB)`
- `voltage = adc.read() * 3.3 / (2**12 - 1)`
- `temperature = (voltage - 0.706) / 0.001721`
- `return temperature`
-

# Using OpenAI to write code

- ```
def send_to_nextcloud(temperature):
```
- ```
    data = {
```
- ```
        "temperature": temperature
```
- ```
    }
```
- ```
    headers = {
```
- ```
        "Content-Type": "application/json"
```
- ```
    }
```
- ```
    response = urequests.post(
```
- ```
        f"{NEXTCLOUD_URL}/index.php/apps/your-app-endpoint",
```
- ```
        json=data,
```
- ```
        headers=headers,
```
- ```
        auth=(USERNAME, PASSWORD)
```
- ```
    )
```
- ```
    print("Data sent to Nextcloud.")
```
- ```
    print("Response:", response.text)
```
- ```
    response.close()
```

# Using OpenAI to write code

- # Connect to Wi-Fi
- connect\_wifi()
- 
- # Read CPU temperature
- temperature = read\_cpu\_temperature()
- print("CPU temperature:", temperature)
- 
- # Send data to Nextcloud
- send\_to\_nextcloud(temperature)