



McMaster Patient Centered Ecosystem

Anubha Sant
Acting Director, eHealth Strategy
santa@mcmaster.ca
eHealth 2015
@xanubhax

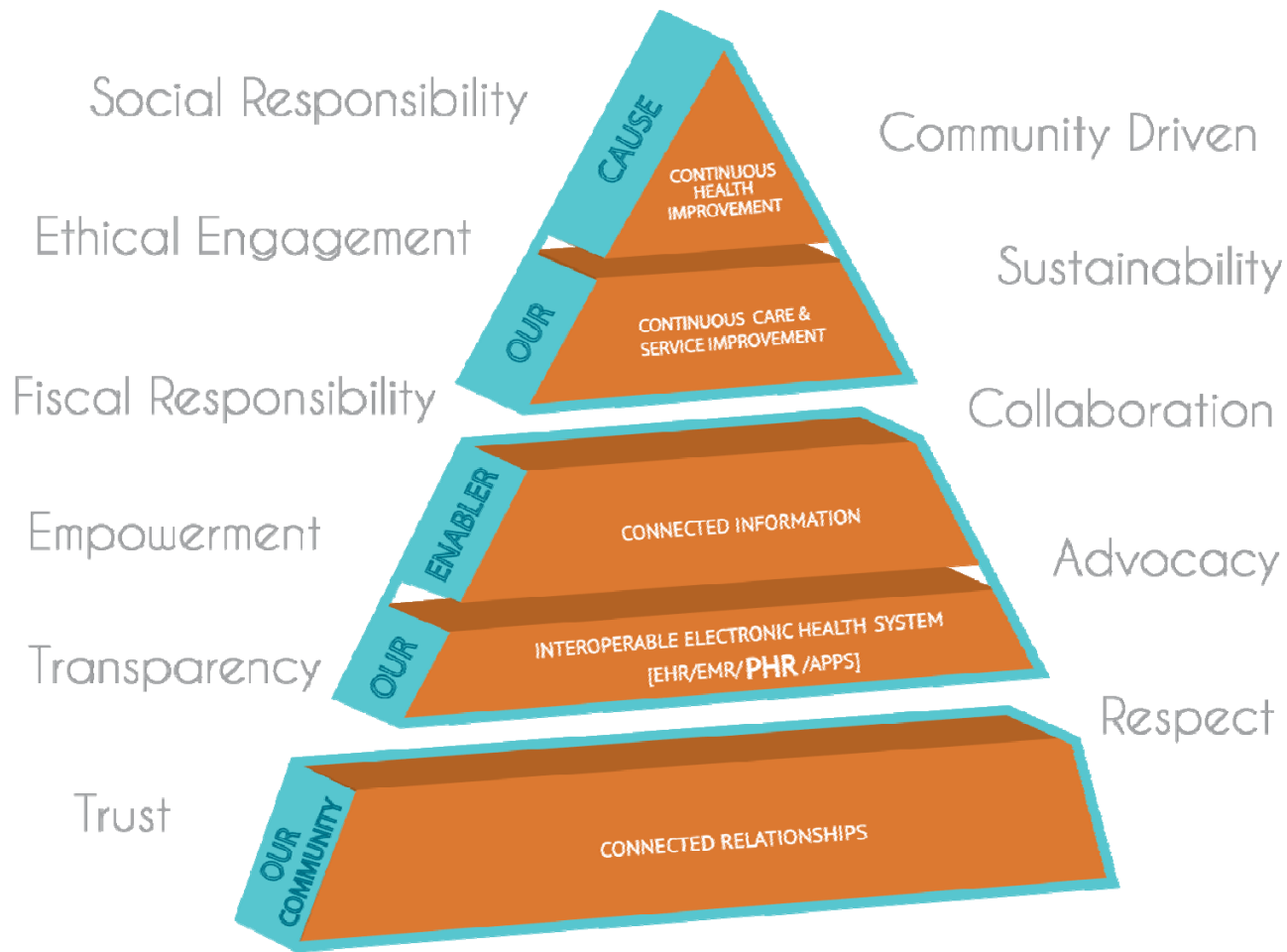


Carr, T, Chan, D, Dolovich, L, Price D, Oliver, D, Sant, A (2015)

A Vision for a Patient Centred Ecosystem

What if every person had a secure virtual place to connect the relationships, information and tools that most influence their health, and that place became a mandatory point of connection for the evolving integration of provider systems, creating a unified digital health ecosystem organized around the patient that fully includes their personal and community circle of support?

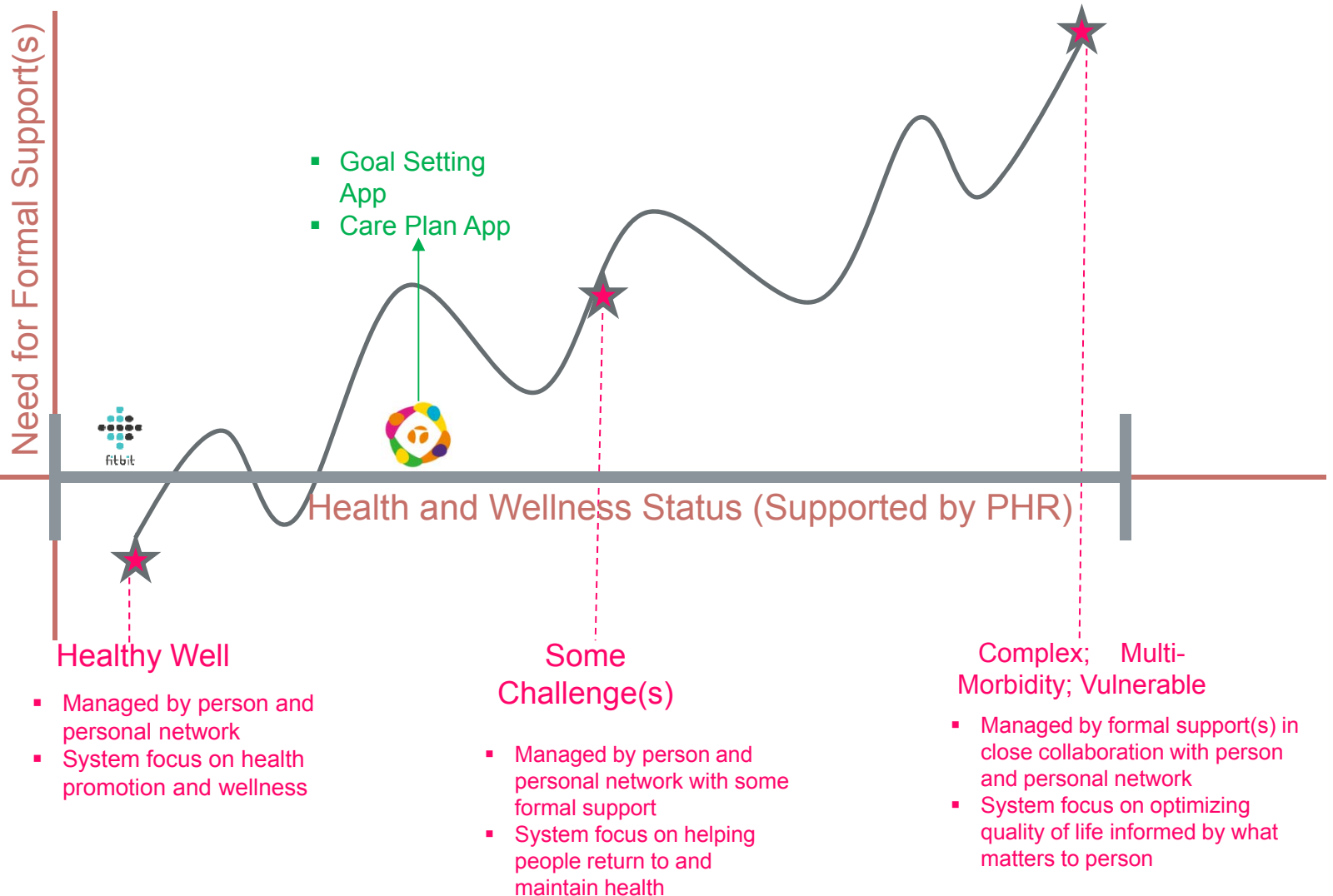




A Continuum of Relationships and Tools

McMaster PHR

- 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)



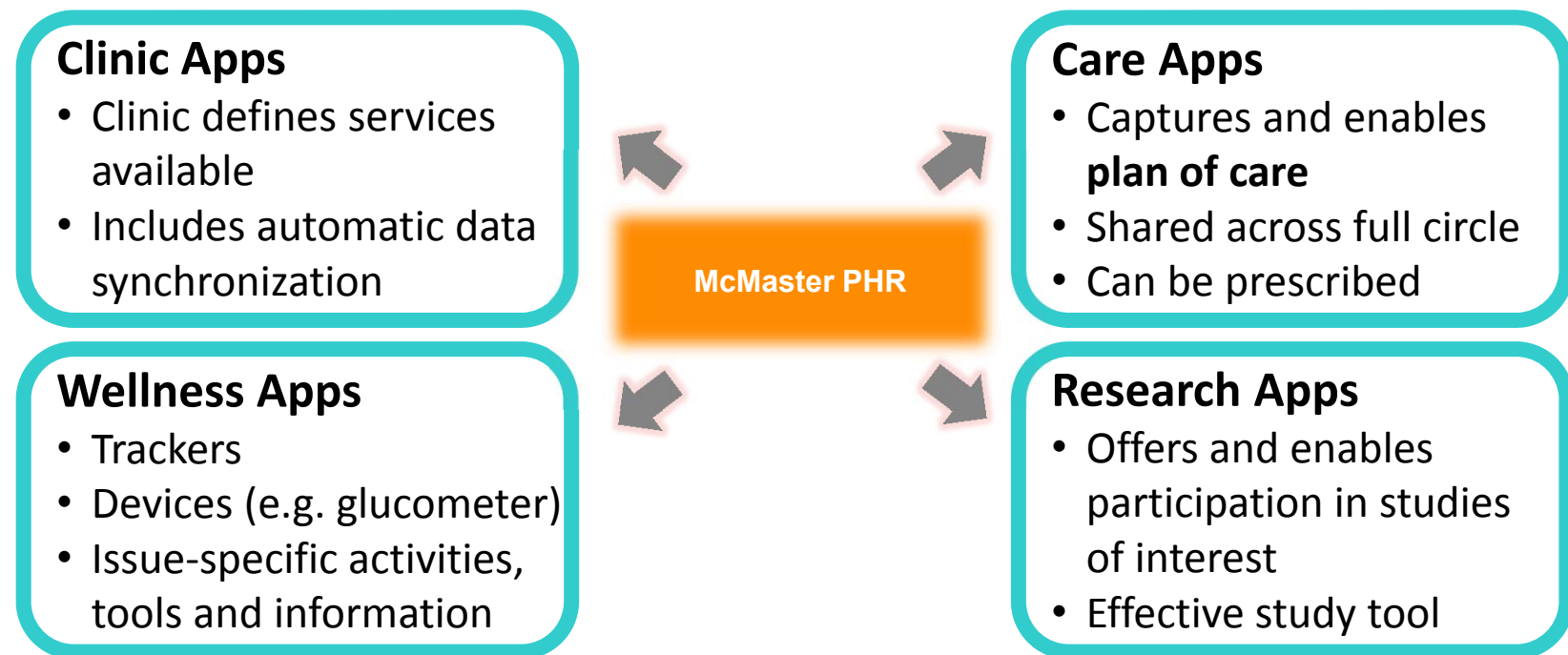
Designed to

- be controlled by the person who decides which parts of their PHR can be accessed, by whom and for how long
- contain information from cradle-to-grave
- contain 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)
- enable exchange of information with other health information systems and health/wellness professionals
- allow users to personalize experience with context-specific apps and evidence based content based on health profile

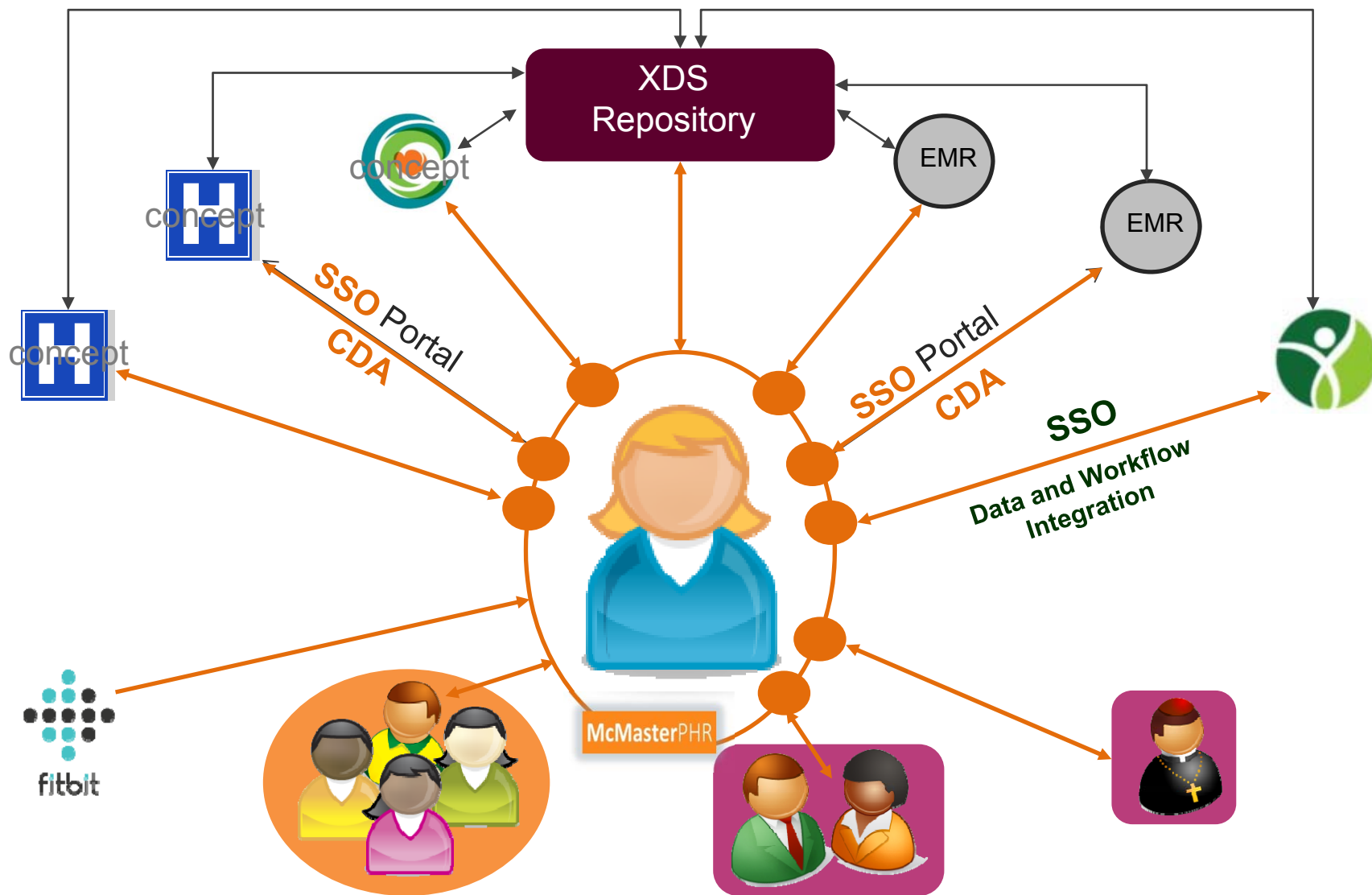
- Captures the holistic context contributing to the health of an individual:
 - Living Environment
 - Social Environment
 - Psychological Environment
- While connecting the individual to their formal health and wellness service providers:
 - Secure messaging; Appointment booking; Sharing health Information

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



Know2Act: CDSS

Actionable Knowledge at Point of Care

- Integrated with EMR
- Knowledge only from user-trusted 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

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

McMaster
PHR

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



TAPESTRY

Barriers to Adoption

Clinical

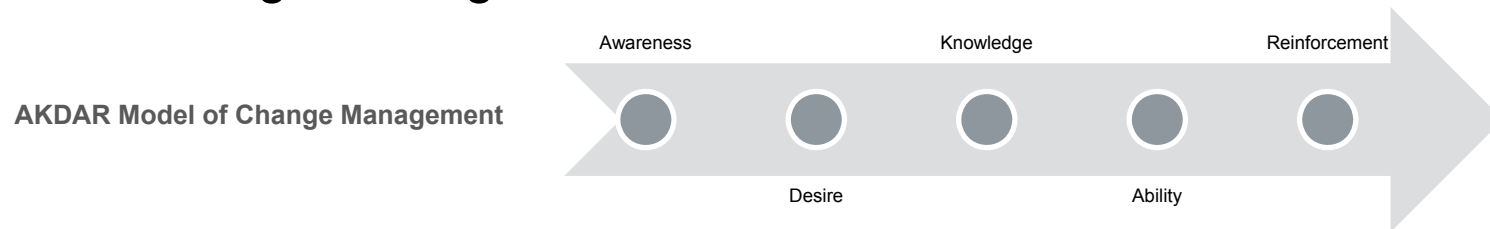
- Lack of reimbursement for electronic consultation with patients
- Disruption to clinic workflow
- General workflow complexities of an academic teaching clinic
- Lack of “person-centered” paradigm

Patient

- Spectrum (unengaged patients who rely solely on clinicians for health management to extensively engaged)

Recommendations

- Robust change management model



- Alignment of processes and technology with organizational leadership, clinical and front line staff
 - Well defined organizational strategy
- Agile Product Design
 - Tight workflow level integration of PHR with EMR/HIS to enable person to connect anywhere they receive care
 - Clinical integration designs guided by provider workflow
- Implementation Support
 - Clinical Education
 - Clinical champions
 - Patient Education

On-going Evaluations

UBC
(HomeVive)

- House-bound

Alberta/NFLD
(BETTER)

- Chronic Disease Management

McGill
(AccessHealth)

- New immigrants

Sturgeon Lake

- First Nations Community



HEALTH
TAPESTRY

McMaster
(TAP-OA)

- Pre-frail

McMaster
(TAP-CM)

- Cardio Metabolic

Operational Ecosystem Implementations

McMaster Family Health
Team (Phase 1)

Quebec

Chilliwack, BC



Department of Family Medicine
Michael G. DeGroote School of Medicine
Faculty of Health Sciences

mcmaster.ca/fammed
[@McMasterFamMed](https://twitter.com/McMasterFamMed)