The Maryland Healthcare Commission Health Information Organization Research Ohio - HealthBridge February , 2009				
Section		**Requirement**	**Definitions**	**Ohio - HealthBridge**
Vision	**I.**	**Vision**	**Clear description of how to respond the unique needs an opportunities of HIE in state**	
	A.	Mission		Our mission is to improve the quality and efficiency of healthcare in our community. To do this we serve as a trusted third party working with all participating healthcare stakeholders to facilitate creation of an integrated and interoperable community healthcare system.
	B.	Principles from Appendix B		
	C.	Interoperability		
	D.	Quality of care		
Strategy and Planning	**II.**	**Financial Model and Sustainability**	**Economic Analysis of cost and benefit for each phase of implementation**	HealthBridge is one of only a handful of HIEs nationwide that has a self-sustaining, cash positive business model that does not rely on grant funding for ongoing costs.
	A.	Financially sustainable		
	A1	Transaction fees		
	A2	Subscription fees		
	A3	Membership fees		
	A4	Hospital funding		
	A5	State Funding		
	A6	Federal Funding		
	A7	Health Plan funding		
	A8	Physician funding		

Section		Requirement	Definitions	Ohio - HealthBridge
	A9	Philanthropic funding		
	B.	Budget		
	B1	capital		
	B2	operating costs		
	B2-1	Salaries		
	B2-2	Benefits		
	B2-3	Office expense		
	B2-4	Rent		
	B2-5	Utilities		
	B2-6	Software purchase and maintenance		
	B2-7	Hardware purchase and maintenance		
	B2-8	Taxes		
	B2-9	Cyber Liability Insurance		
	B3	cash flow		
	B4	break even analysis		
	C.	Community Benefit		
	D.	Benefit Realization		
	D1	ROI - financial measurement		Ave hosp cost for result delivery anticipated to $.75. Actual for 2007 was $.12. Total cost reduction based on volume for 2007 was $16,380,000. Based on current volume, ROI/mo. to community is $1.5M (does not factor in inflation, physician office efficiencies, or quality of care improvements.
	D2	ROI - quality measurement		Quality reporting/performance measurement in near future for diabetes care.

Section		Requirement	Definitions	Ohio - HealthBridge
	D3	ROI - System use measurement		
	D3-1	how many users		
	D3-2	what do they access		
Strategy and Planning	**III.**	**Governance Framework**	**A multi-stakeholder approach that represents the needs of the community and all stakeholders**	
	A.	Plan for engaging stakeholders		
	B.	Ownership model: Public-Private Partnership		
	C.	Profit Status: Not-for-profit		HealthBridge is a not for profit formed in 1997
	D.	Articles of Governance		
	E.	Role of Local HIEs:		
	E1	May include but not require creation of independent governance entities to oversee regional or local HIE. All HIEs would conform with statewide policies, standards and rules.		

Section		Requirement	Definitions	Ohio - HealthBridge
	E2	RHIO participation will be required (required as regional governance entities)		
	E3	Local HIEs must be inclusive and non-discriminatory		
	F.	Technical Operations		
	F1	Separate governing structure from technical operations (potential for combination in latter stages)		
	F2	Governance and technical operations in single entity		
	G.	Accountability Mechanisms		
	G1	Direct oversight through contracts with incentives for adherence and penalties for non-adherence		
	G2	Direct oversight via legislation		
	H.	Board of Director Composition		12 member board representing employers, health plans, hospitals, physicians and other community members
	H1	Governor's Office		
	H2	State Medicaid Agencies		
	H3	State Department of Health		

Section		Requirement	Definitions	Ohio - HealthBridge
	H4	State Healthcare and Hospital Association		
	H5	State Medical Association		
	H6	Other non-profits who are involved in the medical community		
	H7	Government Agencies who may be a stakeholder		
	H8	Consumers		
	H9	Employers		
	H10	Insurers		
	H11	Health Care Providers		
	H12	Pharmacy		
	H13	Clinical Laboratories		
	H14	Higher Education		
	H15	Quality Organizations		
	I.	Operational / Management Positions and Responsibilities		
	I1	Positions		
	I1-1	Executive Director		
	I1-2	Staff		
	I1-3	2 program staff, controller, 2 adm assistants		
	I1-4	Privacy and Security Officer		
	I2	Responsibilities		
	I2-1	Execute strategic, business and technical plans		

Section		Requirement	Definitions	Ohio - HealthBridge
	I2-2	Coordinate day-to-day tasks and deliverables		
	I2-3	Establish contracts and other relationships with local/sectoral initiatives		
	I2-4	Provide industry knowledge		
	I2-5	Advise the Board		
	J.	Board Committees and Responsibilities		
	J1	Governance Board		
	J1-1	Maintain vision, strategy, and outcome metrics		
	J1-2	Build trust, buy-in and participation of major stakeholders statewide		
	J1-3	Assure equitable and ethical approaches		
	J1-4	Develop high-level business and technical plans		
	J1-5	Approve statewide policies, standards, agreements		
	J1-6	Balance interests and resolve disputes		
	J1-7	Raise, receive, manage and distribute state, federal, private funds		

Section		Requirement	Definitions	Ohio - HealthBridge
	J1-8	Prioritize and foster interoperability for statewide and sub-state initiatives		
	J1-9	Implement statewide projects and facilitate local/sector projects		
	J1-10	Identify and overcome obstacles		
	J1-11	Financial and legal accountability, compliance, risk management		
	J1-12	Educate and market		
	J1-13	Facilitate consumer input (Others in MCHIE document worth reviewing and making sure tie back to above)		
	J1-14	Determining compensation for staff		
	J2	Board Committees		
	J2-1	Broadens stakeholder representation in governance body		
	J2-2	Provides content expertise in very specific areas		
	J2-3	Represents clinicians, consumers, employers and payers		
	J3	Suggested Committees:		
	J3-1	Steering Committee		

Section		Requirement	Definitions	Ohio - HealthBridge
	J3-2	Privacy and Security (legal, S & P officers)		
	J3-4	Clinical		
	J3-5	Technical		
	J3-6	Standards		
	J3-7	Outreach and Education		
Strategy and Planning	**IV.**	**Privacy and Security**		
	A.	Registration		
	A1	Registration authority		
	A2	Trusted relationship (i.e. hospital)		
	B.	Authentication		
	B1	providers		
	B2	consumers		
	B3	public health		
	B4	other institutions (educational)		
	B5	non licensed providers (if any exist in state)		
	B6	data authentication (in and out of HIO)		
	B7	system authentication (system accessing HIO)		
	C.	Identification		
	C1	Use of a master person index to provide provider and consumer information		
	C2	public health		
	C3	other institutions (educational)		

Section		Requirement	Definitions	Ohio - HealthBridge
	C4	non licensed providers (if any exist in state)		
	C5	data identification		
	C6	system identification		
	C7	Credentialing of health care providers		
	D.	Audit		
	D1	what is audited		
	D2	who audits		
	D3	how often		
	D4	external audit requirements		
	D5	rules of enforcement		
	E.	Authorization		
	E1	providers authorized to see what data		
	E2	consumers authorized		
	E3	public health		
	E4	other institutions (educational)		
	E5	non licensed providers (if any exist in state)		
	E6	data authorization		
	E7	system authorization		
	F.	Access	Role Based using HL7 Standards	
	F1	Who can access what data		
	F2	Who can change, update data		

Section		Requirement	Definitions	Ohio - HealthBridge
	F3	Sensitive specially protected health information - substance abuse, HIV/AIDS, genetic etc.		
	G.	Consent Framework		
	G1	Opt In	*if patient opts out does the data still go to the HIO without allowing it to be viewed, changed etc.	
	G2	Opt Out	Recommend reviewing California consent models - very detailed based on use cases	
	G3	Notice only to consumer that their information in accessible via HIO		
	G4	Use of de-identified data		
	H.	Legal Agreements		
	H1	master participation agreement		
	H2	use agreement		
	H3	business associate agreements		
	I.	Policy and Procedures	Develop sound policy to manage authorization and access to electronic patient information in a consumer centric approach to health information exchange (Privacy and Security Policies)	
	I1	authentication		

Section		Requirement	Definitions	Ohio - HealthBridge
	I2	audit		
	I3	authorization		
	I4	access		
	I5	consent		
	I6	enforcement - statewide that all must adhere to and may require legislation or ownership by AG office		
	I7	Break the glass		
	I8	Form relevant policy to enable improved community health status		
	I9	HRB		
	I10	Support for Policies Governing Patient Authorization for Data Sharing		
	J.	Legal Issues		
	J1	HIPAA considerations		
	J2	MDCMRA as may be required		
Strategy and Planning	**V.**	**Stakeholder Outreach and Education**	**Ensure Transparency, convene all stakeholders, educate**	
	A.	Part of statewide governing body		
	B.	Documented process to educate:		
	B1	Consumers		
	B2	Under-served		
	B3	Providers		
	B4	Public Health		
	B5	Government Agencies		
	B6	Non-profits		

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	C.	Understanding of market forces - patterns of care , who to connect with and political environment		
Detail Design	**VI.**	**Care Delivery**	**Implementation Sequencing – Who has access first and Implementation Phasing - What information is available first**	**Coding Assistance and Clinical Reference tools**
	A.	Data Partners		
	A1	Hospitals		29 Hospitals
	A2	Laboratories		
	A3	Clinics		
	A4	Pharmacies		
	A5	Individual Physician Practice		4400 physicians
	A6	Nursing Homes		
	A7	State Health Agencies		17 local health departments
	A8	Quality Organization		
	A9	Medicare		
	A10	Medicaid		
	A11	Insurers		
	B.	Data Exchange Requirements		
	B1	Use case analysis to determine actors, information they need, how to provide:		
	B2	Clinical Decision Support Tools		
	B2-1	Medication history and reconciliation		HealthBridge has an e-prescribing initiative (see web site)
	B2-1-1	outpatient prescriptions		
	B2-1-2	pharmacy prescriptions		
	B2-1-3	e-prescribing and prescription histories		

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	B2-1-4	Allergy and drug-drug interaction alerts		
	B2-1-5	Access to drug formularies for Medicaid and MD's two top private insurers		
	B2-2	Lab results		Yes
	B2-2-1	outpatient lab results		Yes
	B2-2-2	Outpatient episodes		Yes
	B3	Radiology Results		Yes
	B4	Radiology images		Yes
	B5	Inpatient episodes		
	B6	Dictation / transcription		Yes
	B7	Claims		
	B8	Pathology		Pathology and Microbiology
	B9	enrollment / eligibility		Verify insurance eligibility, check status of claims, submit referral request.
	B10	Cardiology		Yes
	B11	GI		
	B12	Pulmonary		
	B13	Hospital discharge summary		Yes - admissions, discharge and transfers
	B14	Emergency room reports		
	B15	Patient Reported Data		
	B16	Ambulatory electronic health record		Ambulatory order entry allows hospitals to receive lab orders from physician offices
	B17	Disease Management Tools		Electronic disease reporting and public health alerts; diabetes disease registry planned for beginning with 11 physician practices.

Section		Requirement	Definitions	Ohio - HealthBridge
	B18	Wellness and prevention support based on national proactive guidelines - disease management		
	B19	Medical Alerts		
	B20	Demographics		
	C.	Application Functionality		Axolotl's Elysium® Exchange solution
	C1	Evaluate the following applications based on use case analysis:		
	C1-1	clinical messaging		
	C1-2	Continuity of care records (CCD)		Planned for in future along with community wide CDR, advanced administrative functions and advanced pop health and research capabilities
	C1-3	Longitudinal health records		
	C1-4	Elements of Shared Health Record		
	C1-5	Insurance Eligibility		Planned for future - web based eligibility
	C1-6	Functionality to Support Access to Data for Research		Planned for in future along with community wide CDR, advanced administrative functions and advanced pop health and research capabilities
	C1-7	Support for External Information Requests		
	C1-8	Master person index		
	C1-9	Record Locator Service		
	C1-10	Health Record Banking		PHR integration planned for in next 1-2 years
	C1-11	Auditing		

Section		Requirement	Definitions	Ohio - HealthBridge
	C1-12	Security Applications		
	D.	System Architecture		
	D1	Plan for interfaces of data from data providers		Yes - uses secure connections
	D2	Push / Pull		
	D3	Central Repository vs. Federated Model		
	D4	Record Locator - Edge Servers		
	D5	Hybrid Model		
	D6	MPI		
	D7	HRB with opt-in		
	D8	Web-based application (portal)		
	E.	Reporting		
	F.	Standards		
	F1	Standards for Message and Document Formats (HL7)		
	F2	Standards for Clinical Terminology		
	F3	Provide and implement CCHIT certified EMRs for selected physicians as determined by XXXXX with options including: EMR license with physician storing in office; license with storage at hospital or health bank; license with storage at vendor; ASP model		

Section		Requirement	Definitions	Ohio - HealthBridge
	F4	HITSP-endorsed IHE approach appropriate for supporting distributed data or HRB		
	F5	ASTM Standards		
	F6	NIST e-authentication		
	F7	IHE		
Implementation	**VII.**	**Project Management**	**Method for ensuring smooth planning and implementation**	
	A.	Team Selection		
	B.	Detail Schedule		
	C.	Task development		
	D.	Hardware infrastructure		
	E.	Software Solution Deployment		
	F.	Interface analysis		
	G.	Interface Development		
	H.	Agreement negotiation		
	I.	Solution Testing		
Maintenance	**VIII.**	**Operations processes**	**Support functions**	
	A.	Staffing		
	B.	Support Services		