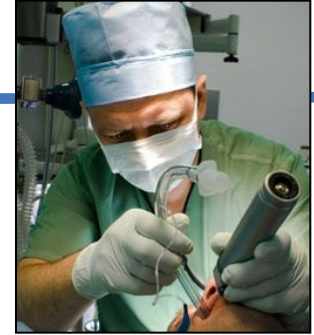
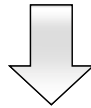


WHO-ITU National eHealth Strategy Toolkit



Context and need for a National Strategy

- A landscape of isolated islands of small scale applications unable to effectively communicate and to share information with other health systems or across geographies, technologies or programs.
- Barriers to scale up to support a larger patient and care provider base.
- Lack of ability of decision makers to understand the actual health situation, to drive meaningful planning and to guide policy formulation.
- Pressure due to ageing population and infectious and Chronic diseases
- Duplication of efforts, may lead to impossibility to integrate solutions.



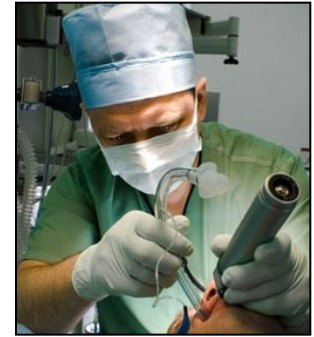
E-Health Strategy can serve as an umbrella for planning and coordinating different national e-Health efforts while considering fundamental elements in terms of regulatory, governance, standards, human capacity, financing and policy contexts.



Need for a National eHealth Strategy

- The E-Health strategy is commended as a useful guide to the next steps for Australia in its e-Health journey. The e-Health strategy is pragmatic, balances different priorities and will help to lead Australia towards the delivery of a safer, better connected and more sustainable health care system.

Australia National e-Health Strategy, 2008



- There is a compelling need to devise ways and means of closing the gap between [health sector] vision and reality. This e-Health strategy seeks to closing this gap.... [T]he development of strategy used a participatory approach that started in October 2008 and concluded in February 2011.

Kenya National e-Health Strategy, 2011



- Today, as we take stock of the current state realities, it increasingly emerges how ineffective piecemeal efforts can be. Failure to define an overarching national level strategy, in which the different ICT components must belong, robs initiatives any sectoral ownership and leaves them at the hands of individual organisations. This national level e-Health strategy with almost a sector-wide participation and ownership is an effort to fill this gap.

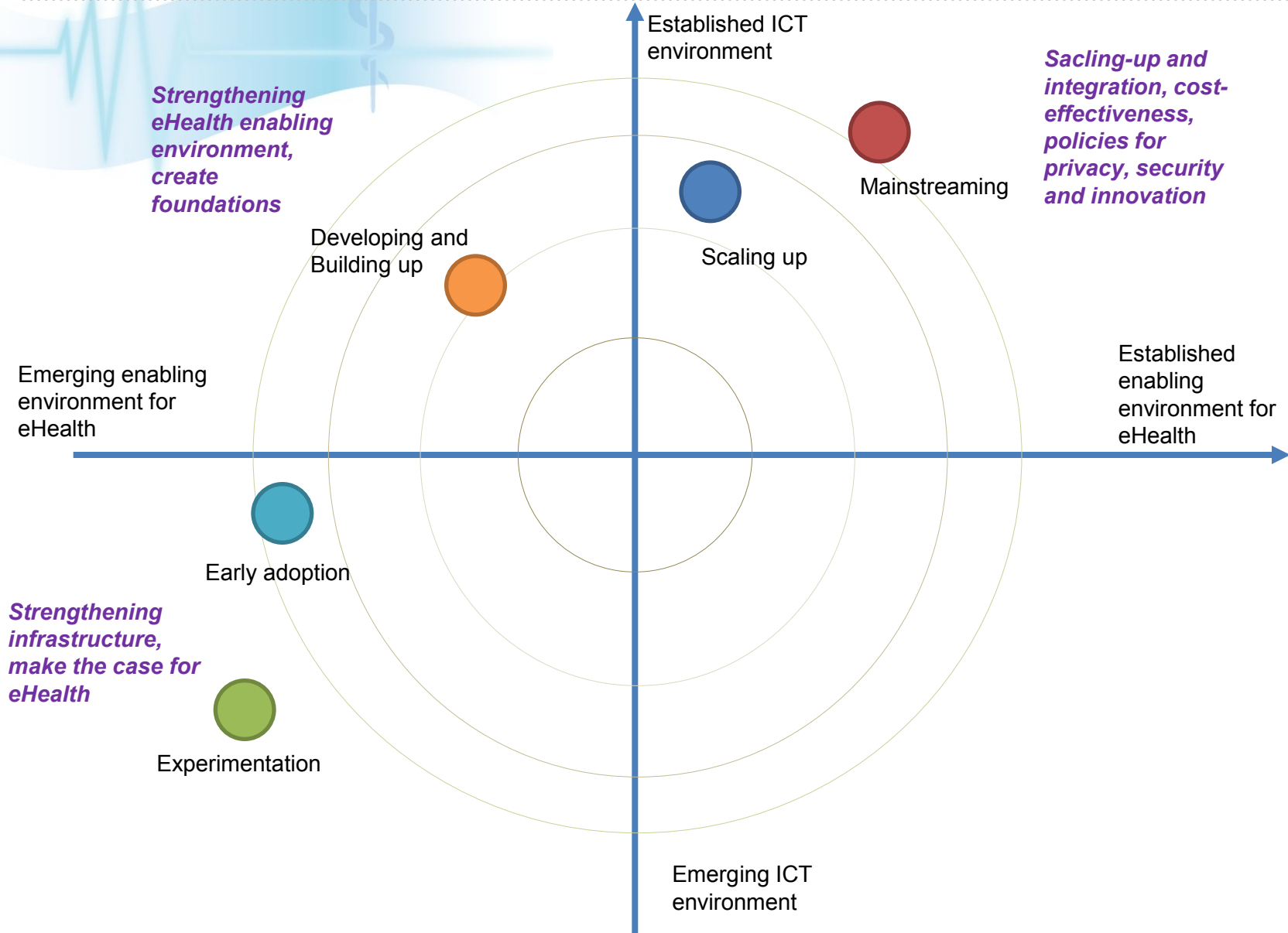
National e-Health Strategy, Mauritius, 2010



Examples of National eHealth Strategies

Country/Region	eHealth Strategy	Published
Australia	National eHealth Strategy	September 2008
Australia	State eHealth Strategy – Queensland	September 2006
Denmark	National IT Strategy 2003-2007 for the Danish Health Care Service	2003
European Commission, DG Information Society and Media, ICT for Health Unit	European countries on their journey towards national eHealth infrastructures, evidence on progress and recommendations for cooperation actions	January 2011
European Commission, DG Information Society and Media, ICT for Health Unit	eHealth priorities and strategies in European countries	2007
European Commission	Repository of eHealth strategies and priorities for EU member states	N/A
Finland	eHealth Roadmap - Finland	2007
Kenya	National eHealth strategy	2011
Mauritius	National eHealth Strategy: He@lth2015, Seamless continuity of care	2010
Saudi Arabia	National eHealth Strategy	2011
Scotland	National eHealth Strategy	September 2011
Sweden	National Strategy for eHealth	2006
Switzerland	Swiss eHealth Strategy	2007
United States of America	Federal Health IT Strategic Plan	March 2011

National context for eHealth Development



National eHealth Strategy Toolkit

The “National eHealth Strategy Toolkit” is a resource for developing or revitalizing a country’s eHealth strategy, from countries just setting out to those that have already invested significantly in eHealth. The Toolkit provides a framework and method for the development of a national eHealth vision, action plan and monitoring framework.

Toolkit for developing a National eHealth Strategy

Part 1 National eHealth vision

- Engage with stakeholders
- Manage the process
- Establish the strategic context
- Learn from trends and experience
- Draft an initial vision
- Identify required components
- Gather information on the eHealth environment
- Assess opportunities and gaps
- Refine vision and develop recommendations

Part 2 National eHealth action plan

- Engage with stakeholders
- Manage the process
- Develop eHealth action lines
- Develop an integrated action plan
- Determine high-level resource requirements
- Apply funding constraints to refine plan
- Define implementation phases

Part 3 National eHealth monitoring and evaluation

- Define indicators for monitoring and evaluation
- Define baseline and target measures
- Define governance and process

Part 1 - Establishing a national eHealth vision and strategy

A framework for a national eHealth vision

Strategic context → Rationale for eHealth

- Population health
- Health system status
- Health strategy, goals and priorities
- Economic and social development goals
- Goals and challenges
- Implications for eHealth

eHealth vision → Desired outcomes

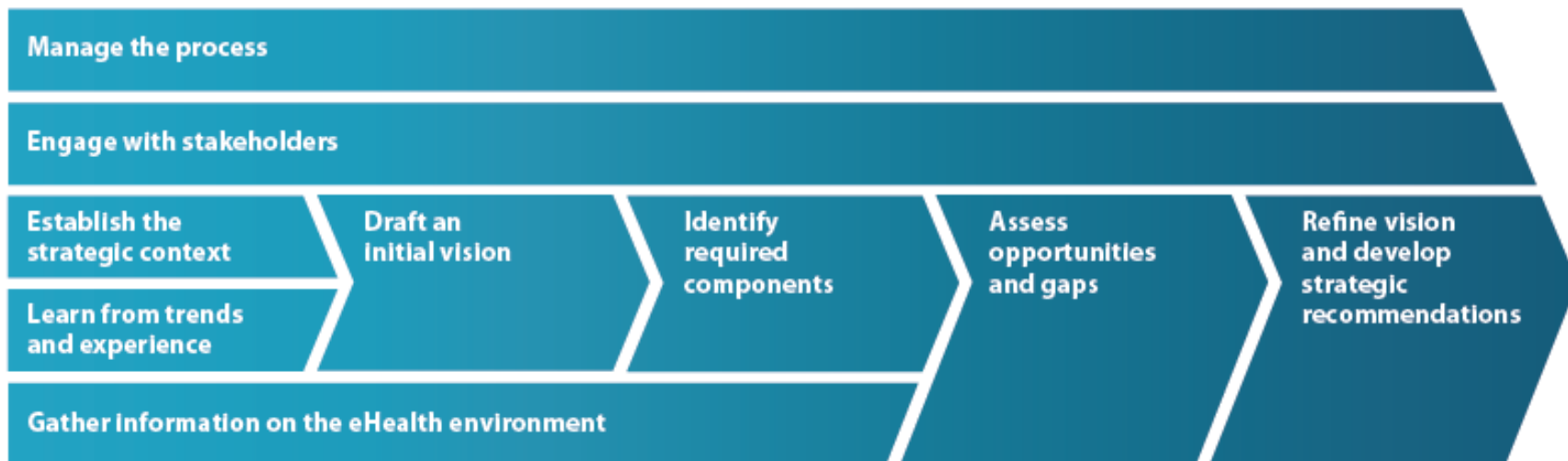
- eHealth outcomes for the health system
- Changes and impact on key stakeholder groups

Required components → Foundations for change

- Leadership and governance
- Strategy and investment
- ICT services and applications
- Infrastructure
- Standards and interoperability
- Legislation, policy and compliance
- Workforce

Part 1 - Establishing a national eHealth vision and strategy

Method for developing a national eHealth vision



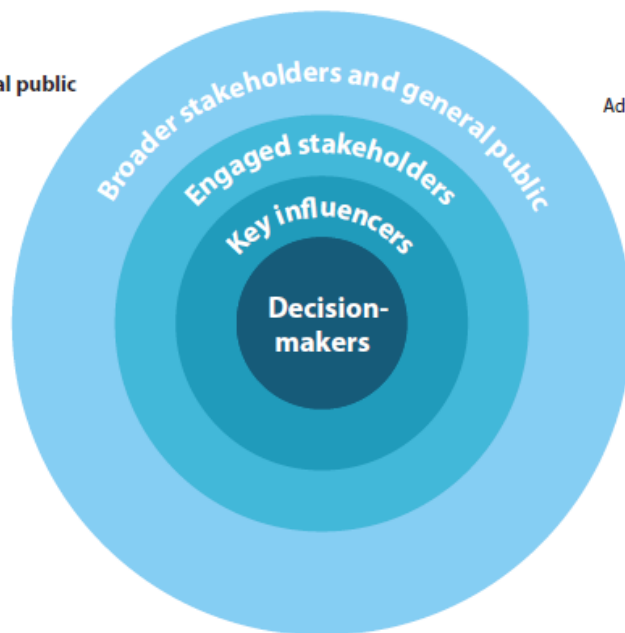
Part 1 - Establishing a national eHealth vision and strategy

Broader stakeholders and general public

Individuals, carers, families, community groups, employers

Engaged stakeholders

Advocacy groups, health executives, insurers, patient associations



Key influencers

Advisors, academics, and senior executives in health, funding and investment organizations

Decision-makers

National eHealth steering committee

How to work with Stakeholders

How to manage the vision development process



Establish the strategic context for a national eHealth vision

Rationale for eHealth

Health sector Strategic goals and challenges: Common areas

Area	Sample questions
Population health	<ul style="list-style-type: none">▪ What are the strategic goals for improving the health outcomes of the population?▪ What challenges will be created by current and expected changes in population health?
Equity and accessibility	<ul style="list-style-type: none">▪ What are the challenges impacting the delivery of equitable and accessible health services across the population?
Health workforce supply and distribution	<ul style="list-style-type: none">▪ What are the challenges facing the supply of the nation's health workforce and its ability to support effective and efficient healthcare delivery at all levels of care?▪ What are the challenges related to the distribution of a nation's health workforce and its ability to support effective and efficient healthcare delivery in metropolitan, regional, rural and remote parts of the nation?
Health system structure and organization	<ul style="list-style-type: none">▪ What are the challenges caused by the existing structural, funding, governance and leadership arrangements of the nation's health system?
Effectiveness and efficiency of healthcare delivery	<ul style="list-style-type: none">▪ What are the challenges that affect the quality and safety of health services delivered to the population?▪ What are the challenges affecting the effort, time and cost associated with delivering health services to the population?
Emergence of advanced medical treatment regimes	<ul style="list-style-type: none">▪ What are the opportunities and challenges associated with the emergence of advanced medical treatment regimes and the demand for these by the population and healthcare providers?
Funding	<ul style="list-style-type: none">▪ What are the challenges regarding funding of national healthcare, such as the growth in public and private spending, sustainability of the health system, projected funding and its impact on future health services?

Construct an initial vision for national eHealth

Rationale for eHealth

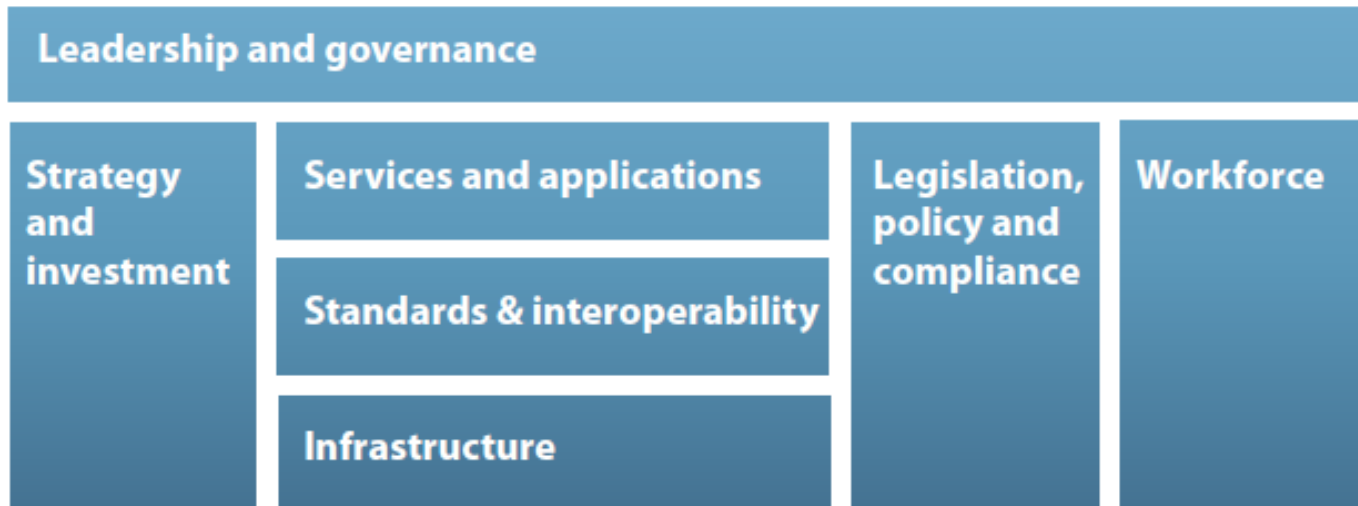
Sample links between eHealth outcomes and health system goals

Health system goal or challenge Health workforce shortages primarily affect rural and remote communities, due to the concentration of highly trained professionals in urban areas.	
eHealth outcome Enable electronic access to appropriate health care services for patients in rural and remote communities	Rationale Enabling individuals to access services through electronic means will partly compensate for health workforce shortages.
Health system goal or challenge To have halted by 2015 and begun to reverse the spread of HIV/AIDS in our country.	
eHealth outcome Provide individuals with electronic access to the information they need about preventing HIV/AIDS and other diseases.	Rationale Access to education and awareness information about HIV/AIDS and other sexually transmitted diseases is an effective way to combat the spread of these diseases.
eHealth outcome Facilitate improved monitoring and surveillance of population health through more effective data collection, reporting and exchange.	Rationale Surveillance and reporting on HIV/AIDS is essential to the planning and implementation of programs aimed at halting and reversing the spread of the disease.

Identify the required eHealth components

Foundations for change

eHealth components



The building blocks of a national eHealth environment which will allow the eHealth outcomes to be achieved. They describe what is needed to be introduced or strengthened to achieve the eHealth vision

Identify the required eHealth components

Foundations for change

Examples of common eHealth service and application components

Component	Description	Examples
Individual electronic health information	Services that support the collection and storage of health information for an individual.	<ul style="list-style-type: none"> ▪ Electronic health records (EHR) ▪ Electronic medical records (EMR) ▪ Personal health records (PHR)
Healthcare communications and collaboration	Services that enable healthcare providers electronically to communicate and share information with other such providers as part of providing care to an individual.	<ul style="list-style-type: none"> ▪ Electronic referrals and specialist letters ▪ Electronic health event summaries, prescribing and test ordering ▪ Access to an individual's EHR and test results ▪ Healthcare provider and service directories ▪ Care plan management ▪ Appointment booking and management
Healthcare service delivery tools	Services that support healthcare providers in making diagnosis and treatment decisions, and in managing the delivery of care to an individual, whether electronically or in person.	<ul style="list-style-type: none"> ▪ Medications management ▪ Prescription and test ordering decision support ▪ Clinical decision support ▪ Alerts monitoring and management ▪ Chronic disease management ▪ Real-time clinical data access and analysis ▪ Telemedicine (telehealth) and mobile health (mHealth)
Health information and knowledge	Services that enable individuals and health-care providers access to trusted and verified health information and knowledge.	<ul style="list-style-type: none"> ▪ Consumer health knowledge sources ▪ Healthcare provider knowledge sources ▪ Distance learning and electronic resources
Healthcare management and administration	Services that enable healthcare managers and administrators to manage effectively the delivery of care to individuals and monitor the health of the broader population.	<ul style="list-style-type: none"> ▪ Adverse event monitoring ▪ Risk analysis ▪ Compliance monitoring ▪ Surveillance and At-Risk Identification ▪ Healthcare operations management ▪ Clinical practice improvement ▪ Health programme design and optimization ▪ Health policy development ▪ Health care and clinical research

Identify the required eHealth components

Foundations for change

Linking an eHealth service and application component to an eHealth outcome

Health system goal or challenge

Health workforce shortages primarily affect rural and remote areas and communities due to the concentration of many highly trained professionals in urban and metropolitan areas.

eHealth outcome

Enable electronic access to appropriate health care services for citizens in rural and remote communities.

Rationale

Enabling individuals to access healthcare services remotely through electronic means will partly address challenges of health workforce shortages.

Required eHealth service and application components

Service delivery channels (Telehealth)

Telehealth services for electronic consultations support delivery of quality care to individuals living in rural and remote communities affected by workforce shortages. These systems provide remote access to clinical and co-consultations in which a local care provider jointly consults with the patient.

Develop eHealth strategic architecture models

Foundations for change

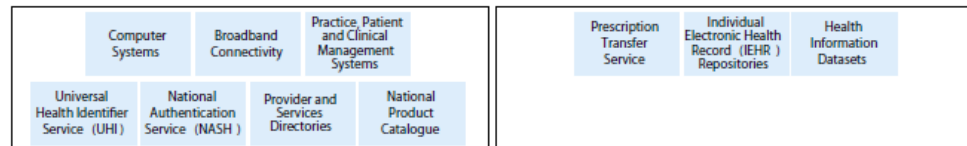
eHealth Governance



eHealth Solutions

Individual Electronic Health Record (IEHR)		Healthcare Service Delivery Tools			Health Information Sources	Health Care Management	
Patient Demographics	Personal Health Diary	Referrals Sending and Receipt	Medications Prescription	Test Ordering	Consumer Health Knowledge Portal	Adverse Event Monitoring	Clinical Practice Improvement
Allergies	Test Results	Event Summaries Sending and Receipt	Decision Support for Medications Prescribing	Decision Support for Test Ordering	Care Provider Health Knowledge Portal	Risk Analysis	Clinical Decision Support Research and Improvement
Current Health Profile	Event Summaries	Notifications Sending and Receipt	Prescriptions Sending and Receipt	Test Results Receipt and Analysis		Compliance Monitoring	Health Program Design and Optimisation
Current Medication List	Access Control	Care Plan Management	Medications Management	Chronic Disease Management		Surveillance and At Risk Identification	Health Policy Development
		Appointment Booking and Management	Clinical Decision Support	IEHR Access and Update		Health Care Operations Management	Health Care Research
		Alerts Monitoring and Management	Electronic Consultations	Real -Time Clinical Data Access and Analysis			
			Practice Performance Analysis				

eHealth Infrastructure

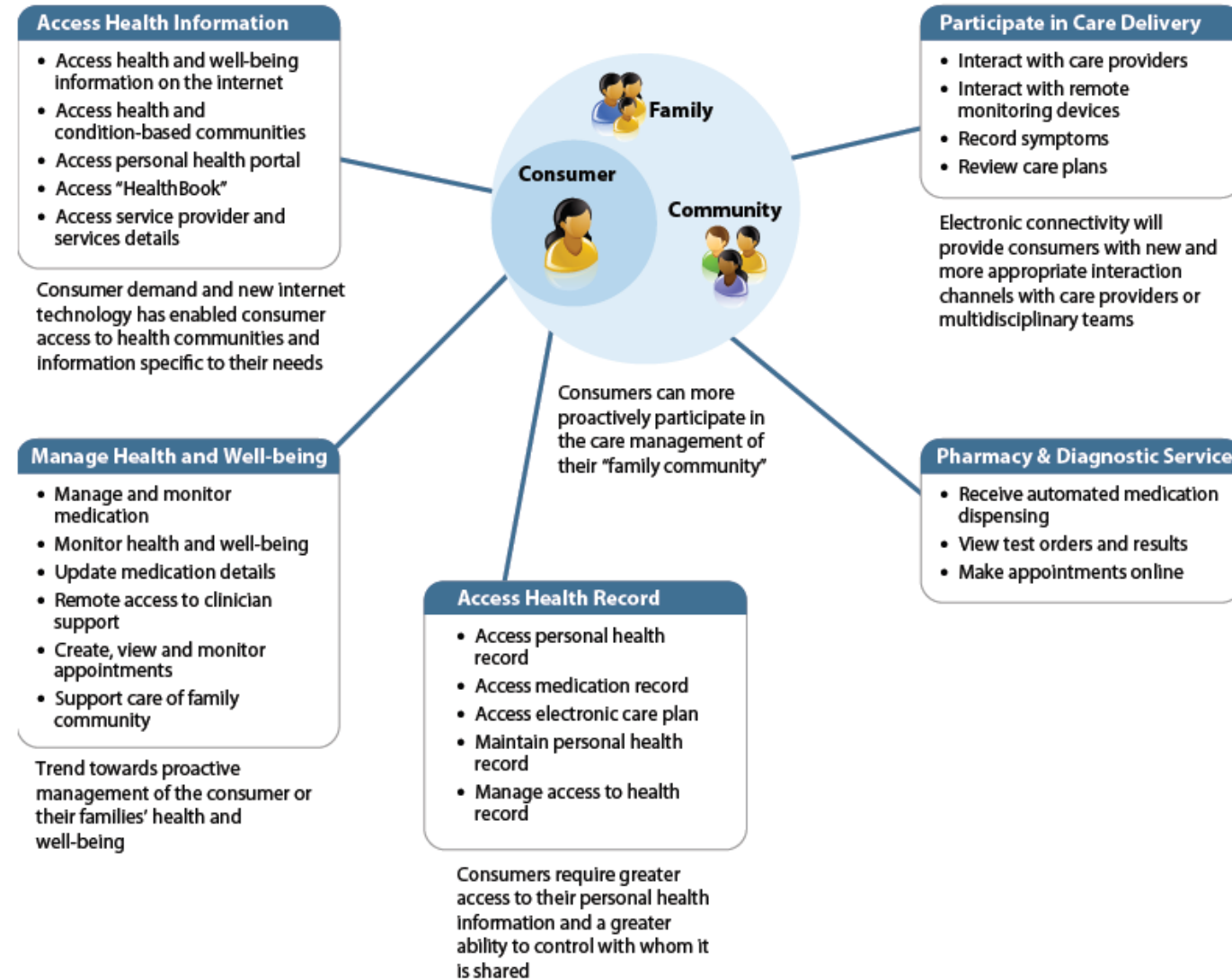


eHealth Enablers

Privacy	Standards	Compliance	Adoption	Workforce
Privacy Regulations	Referrals Prescriptions Appointments Event Summaries Orders and Test Results Real -time Clinical Data Notifications Care Plans	Compliance Services	Awareness Campaigns	Care Provider Workforce Development
Consent Management Policy	Clinical Coding Standards	IEHR Licensing Regime	Incentives	Health IT Workforce Development
	Data Presentation Standards		Engagement Forums	
	Medical Terminology Standards		Clinical Practice and Process Redesign	
	Messaging Standards		Professional Accreditation Standards	
	Security Standards		Professional Practice Standards	
	Software Accreditation Standards		Accreditation Regime	
			Procurement Standards	

Identify the required eHealth components

Strategic eHealth Architecture



High-level stakeholder perspectives model. This model describes what a national eHealth environment would enable different stakeholders (e.g. consumers, healthcare providers, etc) to do, which through doing so, should overcome the strategic health system challenges identified in earlier stages.

Develop an integrated Action Plan

eHealth activity area		Year 0	Year 3	Year 6	Year 10
Foundations	UHI	Implement service	Operate UHI service		
	NASH	Implement service	Operate NASH service		
	NHIRF	Agree and adopt the NHIRF			
	E-Health Standards	Define high priority E-Health solution standards	Develop new standards		
		Implement consistent standards process	Implement and enhance standards		
	Physical Infrastructure	Extend broadband coverage			
Set State/Territory Funds Allocation		Establish and refresh infrastructure		Maintain infrastructure	
Set accreditation requirements		Implement accreditation requirements			
E-Health Solutions	Development fund	Establish fund	Foster development of high priority solutions		
	Compliance	Establish compliance function	Operate certification process		Embed compliance into existing health sector regime
	Solutions Infrastructure	Establish portals	Rationalise and validate sources		
			Prescriptions service		
	High Priority Solutions	Electronic information sharing solutions		Service delivery tools	
Information sources					
Change and Adoption	Awareness Campaigns	Define awareness programs	Rollout awareness programs		
	Incentive Programs	Define incentive regime	Rollout incentives		
	Professional Accreditation	Professional practice standards	Set accreditation requirements	Agree and implement new accreditation requirements	Accredit care providers and care provider organisations against new requirements
	Education and Training	Define professional development programs			
			Implement changes to education and training programs		Enhance education and training programs
Engagement Forums	Establish reference groups	Consult with reference and working groups			
Governance	National E-Health Entity	Establish national E-Health entity			
	E-Health Regulation		Establish E-Health regulatory function		

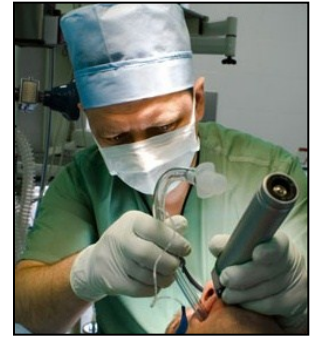
Who can use the Toolkit?

- Countries seeking to build on promising results of pilot projects
- Countries with high-level statements of intent seeking to turn these into action
- Countries beginning comprehensive planning and scaling up
- Countries with experience in eHealth, updating strategies to respond to changing environments



Initiating a national eHealth strategic planning process

- 1. Confirm Health sector leadership.** National planning processes require sustained leadership and commitment from senior government officials and health sector leaders. Development of a national eHealth plan often launches a country's formal programme in eHealth.
- 2. Establish governance mechanisms** to provide improved visibility, coordination and control of eHealth planning activities. This includes the formation of a "steering committee" and an "eHealth strategy team".
- 3. Identify key health and non-health sector stakeholders** who will need to be involved in the development of a national eHealth vision and plan and its subsequent implementation.
- 4. Establish the strategic context for eHealth.** This provides the foundation for eHealth visioning and planning, and enables the government to assess and make informed decisions on how to better harness ICT for health system strengthening and improved health outcomes.
- 5. Forming an understanding of the current eHealth environment** in terms of the eHealth components that already exist as well as existing programmes or projects that will deliver eHealth capabilities.



ITU-WHO National eHealth Strategy Toolkit

THANK YOU

