



STRATEGY 2016–2020

PERSONAL CONNECTED HEALTH ALLIANCE
Because Health is Personal



**Personal
Connected
Health
Alliance**



First Things First: **The Need to Define the Field**

Many working definitions assume that users of personal connected health are “patients” who are already in a healthcare system — as opposed to individuals attempting to remain, or to become healthy.

Wikipedia

“Connected health is a model for healthcare delivery that uses technology to provide healthcare remotely. Connected health aims to maximize healthcare resources and provide increased, flexible opportunities for consumers to engage with clinicians and better self-manage their care. It uses technology — often leveraging readily available consumer technologies — to deliver patient care outside of the hospital or doctor’s office.”

Accenture

“Connected health is an approach to healthcare delivery that leverages the systematic application of healthcare information technology to facilitate the accessing and sharing of information, as well as to allow subsequent analysis of health data across healthcare systems. “. . .The ambition of connected health is to connect all parts of a healthcare delivery system, seamlessly, through interoperable health information processes and technologies so that critical health information is available when and where it is needed.”

Arriving at a Common Definition

The Personal Connected Health Alliance (PCHAlliance) has an opportunity to define what personal connected health is.

“Let’s break down the terms:



PERSONAL: Unique to a specific person — different for every individual, customized, bespoke.



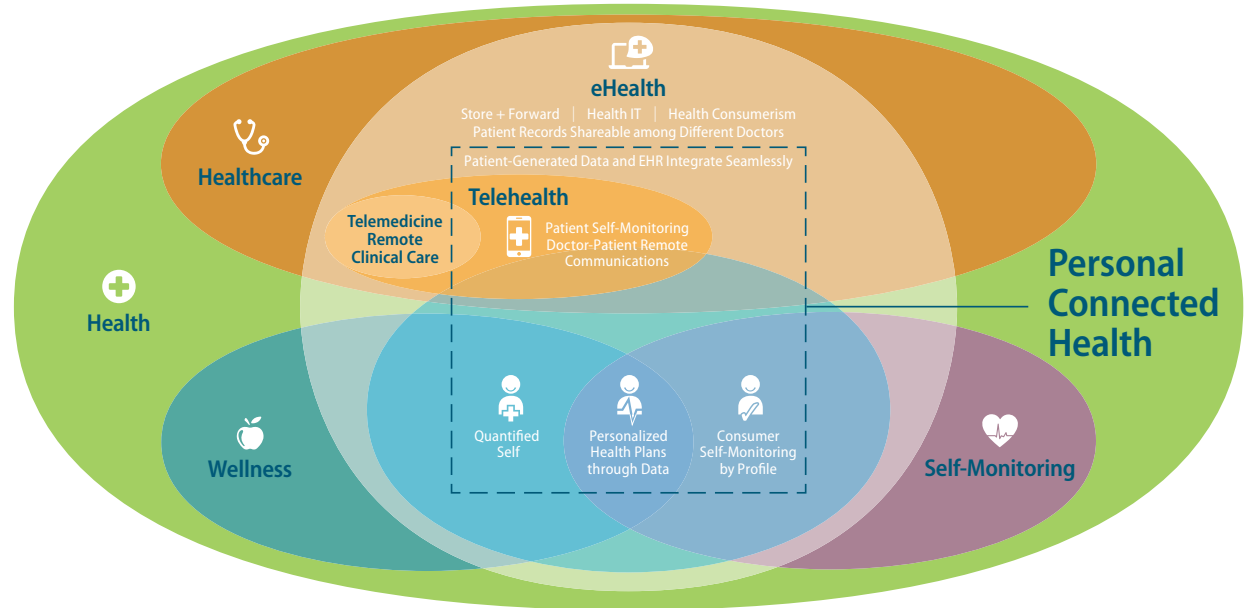
CONNECTED: Individuals’ information flows seamlessly, with their consent, to and from a clinician, caregiver, or community.



HEALTH: The state of a person’s physical, social, and mental wellbeing, including but not limited to the absence or control of disease.

The Scope of the “Personal Connected Health” Space

After identifying the different terms and conducting market analysis, we arrived at these boundaries for the personal connected health space.

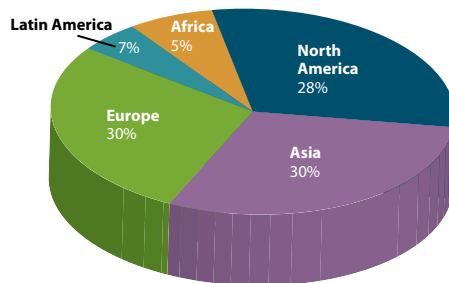


Market Size, Growth & Segmentation

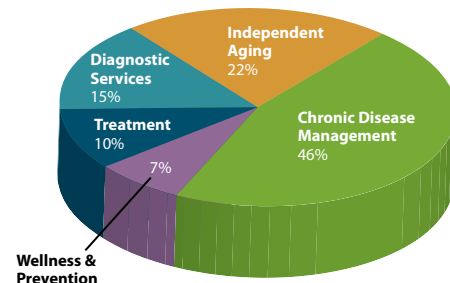
Different sources reach consensus on >30% Compounded Annual Growth Rate (CAGR); health and wellness main source of growth:

- Estimates converge on global market size between \$50–60 billion in 2020
- Health and wellness has highest CAGR (48.1%) in the mobile market
- 78.5 million consumers using home health technologies by 2020
- Split between chronic diseases depends on geography: China more cardiovascular, U.S. more obesity

MOBILE HEALTH MARKET BY GEOGRAPHY



MOBILE HEALTH MARKET BY SUBMARKET (2017)



SOURCES: TechNavio – Global Connected Health M2M Market 2015–2019 Size and Forecast, Overview, Share, Demand, Technology, Services, Segmentation, Market Research Report; Markets and Markets: “CHC Solutions Market Connected Devices & Apps Services — Global Forecast to 2020;” Tractica – Home Health Technologies; CEA white paper – connected health and wellness market; WHO global status report on noncommunicable diseases; CHC knowledge – Using mobile technologies for healthier aging; PWC – The global CHC market opportunity and sustainable reimbursement models.



Key Qualitative Insights to Two Primary Sub-Markets

The opportunities and barriers to growth in each submarket are different and require tailored approaches.

SOURCES: Key Stakeholder Interviews; Economist Intelligence Unit – How technology is transforming healthcare; ATKearney – “Mobile Health: Mirage or Growth Opportunity;” PWC: The global CHC market opportunity.

In **Remote Patient Monitoring**, there are a number of opportunities and barriers:

- In the U.S., lack of an economic model with aligned incentives through reimbursement, as well as concerns about liability for prescribing devices and analyzing incoming data.
- Scientific evidence and ‘portable’ models for remote monitoring still developing.
- Worldwide, 4.9 million people are remotely monitored.

In **Consumer Health**, there are more opportunities than barriers to growth. The main challenge is of consistent usage for health purposes over fashion purposes rather than adoption.

- 50% of owners of fitness trackers stop using their device within 6 months.
- Clinicians are wary of patient-generated data from consumer grade devices.
- Potential opportunity for PCHAlliance in directing the inevitable growth of wearables, Internet of Things, “quantified self” towards consumers taking charge of their health.



Overarching Nature of the Problem

Each stakeholder group only sees their little piece, not the full picture. Consequently, there is a poor match between health needs and innovation.

Lack of awareness and understanding of full potential of personal connected health on all sides: public, providers, policymakers, industry, patients. No common definition or language exists for personal connected health.

Poorly defined market creates an “application gap” between what the real needs are, and what the technology market is currently doing.

Not enough thought leadership and a “research gap” enables these problems to continue.

Lack of coordination and collaboration across diverse groups of stakeholders contributes to all of the above.

Lack of widely accepted framework for behavioral change, and measuring personal connected health outcomes exacerbates the problem.



Key Barriers & Obstacles

MISALIGNED INCENTIVES

- Competing priorities.
- Lack of clarity on reimbursements and viable economic models.

CONCERNS

- Healthcare community skepticism (liability, workflow, confidence, reimbursement).
- Privacy concerns.

SILOS

- Disconnected data silos, especially with regard to Employee Health Records versus patient collected data and consumer experience of health in daily life.
- Technologies are not designed to address the experience of individuals outside and within health system.
- Research is not integrated across the continuum of behavioral health and care or fast enough to keep up with the pace of innovation.

DRIVERS & ROOT CAUSES

- Prevention, public health not valued.
- Disengagement of individuals from behavioral causes of poor health.
- Economic models do not keep pace with technology.
- Lack of processes or mechanisms to address concerns systematically.
- Regulation does not keep pace with innovation.
- Lack of coordination between diverse players.
- Lack of interoperability between technology platforms and systems.



Assets & Opportunities

PCHAlliance will leverage current market opportunities and the unique assets that it brings to establish itself as the driving force behind the personal connected health movement.

INTERNAL PCHALLIANCE ASSETS

- Critical mass of key relationships from which to build.
- Resources
- Team
- HIMSS
- Global reach and footprint.
- Continua guidelines.
- Continua certification.
- Convening venues that are established and known.

EXTERNAL OPPORTUNITIES

- Consumerization of health.
- Rapid uptake and proliferation of personal connected health devices.
- New investors and new entrants in the market.
- Renewed focus on personal, community, and public health.
- Increasingly tech-savvy 50+ generation.
- Good models emerging for interoperable personal connected health in Scandinavia.
- Market hungry for leadership.

PCHAlliance's proposed "Theory of Change"



IF

We support thought leadership, facilitate coordination and collaboration in innovation and research, and increase awareness and understanding on the part of all stakeholders...

THEN

We will address the "app and research gaps," increase the adoption and long-term use of personal connected health devices, maximize customized individual and population-specific health promotion...

THAT

Contributes to a world in which personal responsibility for health and positive behavior change is the norm and improved health outcomes through technology is a reality.

PCHAlliance's proposed **Vision & Mission**



Vision

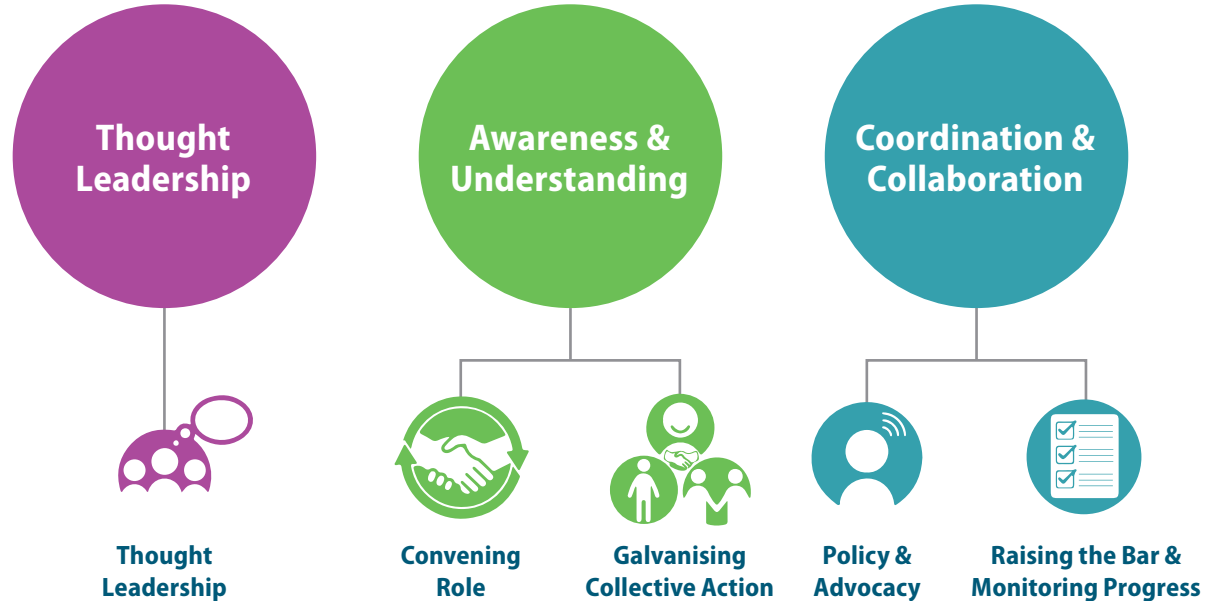
Better health and well-being for all through increased personal responsibility and connectivity as well as improved care delivery enabled by technology.

Mission


The Personal Connected Health Alliance responds to individual, community, and public health needs by catalyzing market and policy innovation, research, and collective action for sustained adoption of personal connected health.

Overall Approach & Resulting Strategic Roles


The link between the nature of the problem, and what we propose to do about it, lies in addressing the overarching factors that contribute to the current state of affairs (the lack of: thought leadership; coordination and collaboration; and, awareness and understanding of full personal connected health potential on all sides) through five strategic roles. They are the critical ingredients for bringing about broad-based change.




Strategic Role #1: Thought Leadership

APPROACH	STRATEGIC ROLES	DESIRED OUTCOMES & OUTPUTS
Thought Leadership	Thought Leadership 	<ul style="list-style-type: none"> • The field of personal connected health is well established. • Key research and health associations are driving the personal connected health agenda forward. • An evidence base is built. • A robust library of publications is produced. • Key media outlets are actively engaged on personal connected health issues. • Continua is a trusted voice for ensuring that competing technology standards are arbitrated in favor of the security, privacy and quality necessary for improved health. • Product development is increasingly aligned with health needs. • A theoretical framework for sustained behavior change is established and adopted.
Awareness & Understanding	Convening Role	
	Galvanising Collective Action	
Coordination & Collaboration	Policy & Advocacy	
	Raising the Bar & Monitoring Progress	


Strategic Role #2: **Convening Role**

APPROACH	STRATEGIC ROLES	DESIRED OUTCOMES & OUTPUTS
Thought Leadership	Thought Leadership	<ul style="list-style-type: none"> • PCHAlliance is the go-to convener, collaborator and coordinator between government, different private industries and consumers who need to collaborate to maximize the impact of personal connected health. • Strong public-private partnerships are formed. • The research agenda and innovation pipeline are effectively facilitated. • The voices of individuals and their caregivers are increasingly appreciated. • Industry consensus on best practices for health-related connectivity is achieved. • Personal connected health is mainstreamed into both the health and technology fields.
Awareness & Understanding	Convening Role 	
	Galvanising Collective Action	
Coordination & Collaboration	Policy & Advocacy	
	Raising the Bar & Monitoring Progress	


Strategic Role #3: **Galvanising Collective Action**

APPROACH	STRATEGIC ROLES	DESIRED OUTCOMES & OUTPUTS
Thought Leadership	Thought Leadership	<ul style="list-style-type: none"> • Robust, rapid research community or “accelerator” pursuing thought leadership strategy.
Awareness & Understanding	Convening Role	<ul style="list-style-type: none"> • The focus of technology community on public and community health needs (e.g. aging) increases.
	Galvanising Collective Action 	<ul style="list-style-type: none"> • Support for policy innovation and reform expands. • Acceptance of Continua’s open source framework as the industry standard for health-related connectivity grows.
Coordination & Collaboration	Policy & Advocacy	<ul style="list-style-type: none"> • Health outcomes-based business models are established.
	Raising the Bar & Monitoring Progress	<ul style="list-style-type: none"> • Doctors seamlessly receive and use data generated by individuals. • People are motivated to take better care of themselves through technology.

Strategic Role #4: **Policy & Advocacy**

APPROACH	STRATEGIC ROLES	DESIRED OUTCOMES & OUTPUTS
Thought Leadership	Thought Leadership	<ul style="list-style-type: none"> • The number of policies supportive of personal connected health increases. • Health literacy and numeracy improves as individuals understand how to use their own data generated by personal connected health technologies. • Incentives for long-lasting adoption of personal connected health technologies are recognized. • The value placed on, and demand for, data sharing and interoperability grows. • The number of certified devices increases. • More countries adopting Continua standards at the national level.
Awareness & Understanding	Convening Role	
	Galvanising Collective Action	
Coordination & Collaboration	Policy & Advocacy 	
	Raising the Bar & Monitoring Progress	

Strategic Role #5: Raising the Bar & Monitoring Progress

APPROACH	STRATEGIC ROLES	DESIRED OUTCOMES & OUTPUTS
Thought Leadership	Thought Leadership	<ul style="list-style-type: none"> • Personal connected health innovation market better matches the health needs of individual's and their caregivers. • Industry has the information it needs to more closely align product development and distribution with individual needs. • Adoption of personal connected devices grows. • Level of personal ownership over health increases.
Awareness & Understanding	Convening Role	
	Galvanising Collective Action	
Coordination & Collaboration	Policy & Advocacy	
	Raising the Bar & Monitoring Progress 	



Thought Leadership Activities

In this role...

PCHAlliance will develop a thought leadership strategy to identify key health needs where personal connected health already is — or could be — making a world of difference.

YEAR ONE ACTIVITIES

- Personal connected health definition and Wikipedia page.
- Thought Leadership Strategy examines one topic in the first year (such as Aging) and lays the foundation for subsequent work over the next four years to establish PCHAlliance as a trusted source of value demonstration given rapidly changing technology.
- Publication series (3–4 per year) such as: “The State of Personal Connected Health” report; a “Ten Year Look Back to Look Ahead” of standards and interoperability; and a publication to come out of collaborative thought leadership strategy such as “Opportunities for Personal Connected Health and Aging.”

YEAR TWO ACTIVITIES

- Assess state of personal connected health and thought leadership priorities to keep pace with rapidly changing field.
- Framework models for innovation pipeline linked to health needs engagement.
- Framework models for behavior change linked to personal connected health devices.



In this role...

PCHAlliance will convene gatherings and participate in events that help to set the agenda and advance learning, best practices and education in the field.

Convening large, medium, and small gatherings related to personal connected health, including:

- Connected Health Conference in Washington, DC – December 11–13, 2016
- Personal Connected Health content at HIMSS17
- African Digital Health Summit with HealthEnabled
- 2–3 Continua member working group meetings (in Europe, Asia and Washington, DC)
- Collaborative technology creation events convened by Continua (such as Plugfests, Connectathons)

Active participation and engagement in health and technology events to advance personal connected health field, such as:

- Aging 2.0
- AARP meetings
- One or two of the following: CES, SxSW, Aspen Institute, and Mobile World Congress
- Wireless Health Research conferences



Galvanizing Collective Action

In this role...

PCHAlliance will galvanize collective action around innovation and research linked to prioritized health needs.

Year-long collaborations to promote the adoption and effective use of personal connected health devices by individuals and providers will further reinforce PCHAlliance's thought leadership and advocacy roles.

YEAR ONE ACTIVITIES

- Develop framework for collective action related to personal connected health and launch two initiatives at the Connected Health Summit in Dec 2016: Country Adoption of Continua Guidelines and Aging.
- Begin to implement the framework for action and cultivate new initiatives.

YEAR TWO ACTIVITIES

- Initiate a program related to one or two health issues for which the Continua standards are already and can further make an important contribution to improved health outcomes (i.e. hypertension, diabetes, congestive heart failure, etc.)



In this role...

PCHAlliance will provide the information, and produce the increased awareness, on the part of all stakeholders, that is necessary to bring about real change.

PUBLIC POLICY

- Collaborating with advocacy groups and policy makers to proactively overcome barriers to adoption and address risks and concerns.
- Align existing U.S. and European policy advocacy working groups with updated PCHAlliance strategy, maintaining interoperability focus in first year, expanding into additional issues thereafter.
- Collaboratively develop an overarching media strategy with HIMSS Media.

PUBLIC EDUCATION

- Social media campaigns and public awareness to engage consumers in more effective use of technology to promote better health: Prioritize one (TBD) activity in this area that aligns with our year-long collaboration topic (e.g., aging).
- Creation of strategy and content to educate public and key stakeholders on benefits and risks related to personal connected health: Prioritize one (TBD) activity in this area.



Raising the Bar & Monitoring Progress

In this role...

PCHAlliance will collaboratively develop resources and frameworks to help monitor and measure progress in the personal connected health field, raising the bar for all.

YEAR ONE ACTIVITIES

- “Consumer Reports” for personal connected health: explore partnership opportunities with Consumer Reports.
- Survey on personal ownership over health and role of technology: explore partnership opportunities with Pew.
- Explore other partnerships that could increase collective understanding of “the individual” and their needs in addition to the industry and its needs.
- Expand Continua certification levels and activities.

ONGOING ANALYSIS

- Annual report on the state of connected health technology adoption around the world, celebrating progress, and identifying opportunities to accelerate adoption.
- Work with HIMSS Analytics to collaboratively design a market analysis platform in Year One.
- Begin implementation in Year Two.



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