Telehealth: Expanding the Continuum of Care
Improving patient outcomes while reducing costs
CONTENTS

THE RISING TSUNAMI IN HEALTHCARE ................................................................. 3
LACK OF ACCESS TO CARE .................................................................................. 3
CHRONIC DISEASE ............................................................................................... 3
THE SILVER TSUNAMI .......................................................................................... 4
THE IMPACT OF US HEALTHCARE REFORM ...................................................... 4
TELEHEALTH: AN EMERGING DELIVERY SYSTEM ........................................... 4
A MODERN APPROACH TO THE CONTINUUM OF CARE .............................. 5
WHAT IS TELEHEALTH? ....................................................................................... 6
TELHEALTH SOLUTIONS ..................................................................................... 6
INDUSTRY STAKEHOLDERS ............................................................................. 7
A QUIET REVOLUTION ......................................................................................... 8
REMOTE DISEASE PREVENTION AND CHRONIC CARE .................................. 8
CLINICAL HEALTH TRIAGE SERVICES ............................................................. 9
WELLNESS AND PREVENTION SERVICES ....................................................... 10
ACCESS MANAGEMENT SYSTEMS ................................................................ 10
SYKES TELEHEALTH SERVICES ....................................................................... 11
THE RIGHT TECHNOLOGY ................................................................................. 11
A CAREFUL BALANCE OF ACCESSIBILITY AND PRIVACY ............................ 11
ENSURING CLINICAL EXCELLENCE ................................................................. 11
HIGH TOUCH PATIENT CARE .......................................................................... 12
ABOUT US ........................................................................................................... 12
THE RISING TSUNAMI IN HEALTHCARE

Already manifesting itself on various fronts, a crisis is growing in North America’s healthcare system. Precipitated by a convergence of spiraling costs, growing demand and outdated infrastructure, the healthcare industry is scrambling to develop strategies to meet the systemic challenges posed by this rapidly rising tsunami:

- Healthcare inaccessibility
- Chronic diseases
- Large, aging population
- Healthcare reform mandates

LACK OF ACCESS TO CARE

A patient’s lack of access to proper care at the required time is one of the chronic problems facing our current healthcare system. In the United States, over 30% of children are estimated to lack adequate access to healthcare, and nearly all fifty states have extremely uneven distributions of primary care doctors. In fact, according to a recent study published in *Pediatrics*, nearly one million children live in areas with no local children’s doctor, while many wealthier areas are “saturated” with pediatricians and family physicians.¹

CHRONIC DISEASE

With readily available high-calorie, processed foods and a decrease in physical activity levels, the overall quality of health of all American citizens is declining. In the US alone, over $2.5 trillion is spent on healthcare annually, a figure projected to grow to $4.4 trillion per year by 2018.² Nearly 80% of those costs result from chronic diseases such as heart disease, chronic obstructive pulmonary disease, obesity and diabetes.

Currently, in the United States³

- 47% of the population is overweight
- 45% of the population has high cholesterol
- 24% of the population has high blood pressure
- 27% of the population is either diabetic or pre-diabetic

---

**Healthcare Industry Drivers**

**Soaring Costs**

- Costs continue to rise unabated, limiting access to care

**Growing and Aging Population**

- Baby Boomer population bubble
- Aging population is increasingly unhealthy
- Inadequate tax-base for long term funding of healthcare system

**Shrinking Supply of Healthcare Professionals**

- Shortage of doctors, nurses and other healthcare professionals
- Incoming doctors choosing lucrative specialties rather than primary care
- Healthcare providers located in urban centers; rural patients at geographic disadvantage
THE SILVER TSUNAMI
The demographic wave of aging and often chronically ill Baby Boomers is another significant factor. Known in North America as the “Silver Tsunami,” the Baby Boom population bubble is just beginning to flood a healthcare infrastructure already straining under the multiple burdens of soaring costs, outdated delivery systems, and a shortage of healthcare providers.

According to the U.S. Centers for Disease Control and National Center for Health Statistics, by the year 2030 over half of US adults will be over age 50, and the over-65 population will nearly triple. For most Americans, the last seven days of life are the most expensive, as procedures administered at the end of life tend to be costly and delivered in the hospital. Less recognized is the fact that more than six out of 10 adults will be managing more than one chronic condition, which adds to the complexity and costs of treatment. Compounded by patient non-compliance with prescribed regimens and treatment plans, inpatient re-admissions will likely increase, as well.

THE IMPACT OF US HEALTHCARE REFORM
Putting further stress on an already beleagured system, recently mandated US healthcare reform legislation will extend coverage to over 32 million more US citizens by 2014. This leaves the healthcare industry fighting a tailspin as it urgently seeks out more efficient, cost-effective approaches for providing more care with fewer resources.

TELEHEALTH: AN EMERGING DELIVERY SYSTEM
While the last century has seen remarkable advances in healthcare and medicine, the delivery systems for providing that knowledge and treatment are still tied to an infrastructure that is aging, outdated and ill-equipped to meet a rapidly rising demand.

Designed in decades past, the current system is based on providing services in traditional institutional settings—a trip to the doctor’s office, health clinic or hospital. While this might be appropriate for many situations—especially those that require hands-on treatment—it does not meet the needs of the vast number of people who require support for prevention and self-care.

Such a facility-based system is also not accessible for individuals who live in isolated rural areas or those who lack convenient transportation for continuing treatments. This outmoded approach is not only needlessly inconvenient, inefficient and costly; it restricts access and discourages people from participating in the management of their own health and well being.

The dual dilemma of how to hold down costs while maintaining—or even improving—effective delivery of healthcare requires the industry to adopt a transformational model integrating multi-channel technology and service solutions which are readily available in the digital age.

Technologies are now at hand which allow the industry to move away from an outmoded reliance on institutional settings and adopt delivery systems that are more efficient for providers and more convenient, empowering and effective for patients. Significantly, they form the basis of a truly sustainable model for the future.
A MODERN APPROACH TO THE CONTINUUM OF CARE

This paper investigates innovative new approaches to modernizing and extending the traditional *continuum of care* model. By using electronic technology, healthcare providers can now initiate a patient relationship much earlier (prior to the onset of disease or chronic condition) and monitor follow-up treatment much later (ongoing oversight of regimen compliance) than occurs in the current traditional approach.

The common usage of the phrase “continuum of care” relates to the coordination of all phases of a patient’s illness from diagnosis through various levels of care (doctor’s office, outpatient, inpatient) to placement in step-down facilities or to home recuperation. In her book, “Definition of Continuum of Care,” Connie J. Evashwich writes:

> The continuum of care concept extends beyond the traditional definitions... a comprehensive, coordinated system of care designed to meet the needs of people with complex and/or ongoing problems efficiently and effectively.

A continuum of care is patient-oriented, not provider or payer-oriented. The orientation is to organize services according to patient’s needs, not according to a provider’s convenience or a payer’s rigid guidelines. …The ideal continuum takes a holistic approach…emphasizes wellness rather than illness… [and] need not be owned by a single entity. The key is to be able to give patients access to the services they need when they need them. The organizational arrangements among providers may be ownership, contracts, affiliations, or even informal but strong relationships….The continuum incorporates acute and long-term services, intertwining the two with common integrating mechanisms, rather than creating two separate systems of care.

The goal of the continuum of care is to facilitate patient access to the appropriate services quickly and efficiently. Ideally, a continuum of care:

- Matches resources to the client’s condition, avoiding duplication of services and use of inappropriate services
- Takes a multifaceted approach to the patient’s and family’s situation
- Monitors the patient’s condition and modifies services as needs change
- Integrates care provided in a range of settings
- Coordinates the care of many professionals and disciplines
- Streamlines client flow and facilitates easy access to services needed
- Maintains a comprehensive record incorporating clinical, financial, and utilization data across settings
- Pools and negotiates comprehensive financing

A true continuum of care should (1) enhance quality and client satisfaction through appropriateness, ease of access, shared information, and ongoing continuity of care; (2) increase provider efficiency; and (3) achieve cost-effectiveness by maximizing the use of resources.⁴
WHAT IS TELEHEALTH?

Telehealth, telemedicine, e-health, tele-triage ... In this emerging information industry, services delivered at a distance, rather than in person, are recognized by many similar-sounding names. In the same way that “curative” or “disease-related” terminology is evolving into the broader, more encompassing “health and wellness” perspective, so the information technology applications have yet to settle on one agreed-upon term for common usage.

In general, telehealth is defined as:

... the combined use of telecommunications and computer technologies to improve the efficiency and effectiveness of healthcare services by liberating caregivers from traditional constraints of place and time and by empowering consumers to make informed choices in a competitive marketplace.5

This rather static definition cannot fully capture the actual, dynamic break-through taking place in healthcare service delivery today. Whereas, in the past, medical information was controlled primarily by physicians themselves, now many types of non-physician practitioners—nurses, technicians, psychologists, social workers, counselors, coaches, nutritionists, etc.—may use this technology to access and share clinical information with patients on an interactive basis. In addition, the patient will have easier access to pertinent information and answers to a wide variety of questions not normally addressed to physicians.

Telehealth may be simply defined as the exchange of clinical information from one site to another via electronic communications. For example, nursing or physician contact centers, physician-to-physician consults, remote monitoring of vital signs, continuing medical education, and accessing information on the internet are all considered part of telemedicine and telehealth.

From a suburban US Baby Boomer with the potential to self-manage aspects of his/her chronic heart disease via remote monitoring devices and lifestyle intervention to an expectant mother in a rural Canadian province able to access pre-natal health information via a toll-free call center, new channels for the delivery of a wide variety of healthcare information, services and products are emerging. These applications can leverage a strategic combination of current communications technologies with best practice clinical and behavior-change protocols to create customized systems that strengthen and enhance patient care.

TELEHEALTH SOLUTIONS

Patients and their families have long been disconnected and disempowered by the traditional approach to healthcare. The current generation has inherited a system designed for their parents, one that no longer has the capacity to serve them. Telemedicine and telehealth are critical components in the future of quality, affordable healthcare solutions.

This is more than just technology-based telemedicine. It is the 21st-century solution to a longstanding question: How can we increase access to, and delivery of, high-quality health information and services in the face of a dwindling supply of resources?

---

Telehealth answers the question: How can we increase access to, and delivery of, high-quality health services in the face of a dwindling supply of resources?
Telehealth is the answer because of its unique capacity to provide the right information at the right time, delivered in the right way. Evidence-based, real-time solutions delivered across a variety of channels by qualified healthcare professionals using best practices information offer a continuous, cost-efficient and—because of its ability to more actively engage patients in the management of their own conditions—more effective approach.

Striking a balance between high tech and high touch patient care, telehealth solutions allow nurses, clinicians and coaches to provide appropriate clinical services in tandem with behavioral and motivational coaching. A more convenient, consistent and efficient approach to the delivery of healthcare, telehealth solutions empower patients and their families to make better decisions—resulting in improved outcomes, lower costs and reduced pressure on limited resources.

INDUSTRY STAKEHOLDERS
One market, many stakeholders - all participants in the healthcare industry stand to benefit from the incorporation of telehealth solutions, including:

Patients
By the year 2014, US healthcare reform will increase the number of patients actively participating in health insurance programs by over 32 million. The market is reacting by becoming more competitive and responsive to patient needs. Patient satisfaction and loyalty are crucial to the success of the other stakeholder groups. That’s where telehealth solutions come in.

Payers
Payers are moving toward incenting providers to proactively improve patient health status, rather than wait for office visits, tests and treatments to become necessary. With services more and more aimed at prevention, keeping people healthy and at home—and out of expensive facilities—is increasingly the goal of both private and public payers. Telehealth services offer vital, cost effective solutions for payers.

Providers
Providers come in all shapes and sizes: quaternary to primary level hospitals, individual practices or physician groups, mental health clinics, wellness programs, etc. Given the new incentives, providers can utilize telehealth services to help attain and maintain their patients’ health while optimizing financial performance. Not only are providers compensated for assisting in health maintenance, they can also use their valuable office time to treat more complex conditions.

Medical Device Manufacturers
Telehealth promotes access and use of medical devices and medical supplies, such as blood glucose meter strips, blood pressure and other remote monitoring and communications technologies. These services—delivered electronically across multiple channels—empower patients to maintain their customized regimen consistently and successfully in the comfort and convenience of home.

Pharmaceutical Companies and Pharmacies
Telehealth systems can support pharmacies and pharmaceutical manufacturers by providing
patient information, reminders, medication advice and device support to help patients stay on their treatment regimens and help manufactures meet requirements for regulatory compliance and patient safety.

A QUIET REVOLUTION
Telehealth has been described as “a quiet revolution in healthcare” because it is transforming patient access. Now we can envision a streamlined, patient-focused future in which ease of delivery, improved patient outcomes, and savings—in terms of both resources and lives—are being made available across a vast spectrum of the healthcare landscape.

Image a scenario in which the most current, highest-quality healthcare information, expert clinical services, and empathetic behavioral support flow freely and instantaneously between healthcare providers and their patients:

A 62 year-old diabetic man in suburban Tampa, Florida, has his daily follow-up regimen overseen by a dedicated team of telehealth professionals deployed in a hospital’s call center in Oklahoma. Utilizing telehealth technologies, they monitor his blood glucose levels, send informational emails, make phone calls reminding him to take his medication, and coach via video-conferencing technologies—while he remains in the comfort of his home. His family even receives reassuring SMS text messages reporting on his condition and confirming that he is successfully following doctor’s instructions.

In a remote area of Appalachia, a 57-year old miner suffering from emphysema is receiving critical assistance to stop smoking through a nationally accessible toll-free telephone helpline. Knowledgeable counselors monitor his progress with frequent calls and personal encouragement to help him break this powerful addiction.

A vascular surgeon in the Arizona consults via videoconferencing with a sub-specialist at a clinic in Cleveland for a second opinion before proceeding with a particularly difficult surgical procedure, increasing not only the likelihood of a successful outcome but also greater convenience and cost-savings, including savings to the patient who does not have to travel away from home and savings to her employer’s health plan.

REMOTE DISEASE PREVENTION AND CHRONIC CARE
Remote medical devices that produce biometric data streams to monitor blood glucose, blood pressure and other basic vital signs offer additional technologies for remote health support. Utilized in combination with consistent oversight by nurses, clinicians, coaches and other practitioners, this technology enables staff to manage the care of those patients who might have been previously been considered outliers or geographically inaccessible.

Integrated with common communications technology and daily living devices such as motion sensors, medication reminders, and emergency response services, patients embrace the devices as essential to their disease management programs. They also alleviate the need for institutional visits and help them manage their health optimally in their own homes.

For 30 years or more, telemedicine has been practiced by physicians to consult with each other, usually by a primary care or specialist needing another opinion from a sub-specialist or perhaps a physician located in a rural area needing over-reads from physicians in a better-equipped urban medical center (see Mayo Clinic®).
"Recent technological advances, however, have expanded the scope of medical interaction that may be achieved. Whereas consultative services, examination of still documents (photos, x-rays, slides, or ECGs), and interactive voice sessions previously defined the state of the art, the telemedical event may now involve ‘live’ manipulations of patients and/or tissues ‘at a distance’."  

The rapid development of telemedicine will continue to be driven by the implementation of enhanced high-speed broadband communications, immersive feedback and nanotechnology.

**CLINICAL HEALTH TRIAGE SERVICES**

Telehealth services can be scaled and customized using teams of healthcare and psychological service professionals including counselors, psychologists, sociologists, social workers and nurses to provide a holistic matrix of improved clinical care.

Highly skilled nurses staff an electronic clinical support system that operates under rigorous, standards-based guidelines to provide health information, advice and support, as well as a service referral database used to help assess symptoms while they assist callers in making appropriate healthcare decisions.

Nurse-patient exchanges can include a wide array of information, including, but not limited to:

- Advising on self care at home
- Contacting a doctor
- Driving to an emergency room
- Calling 911
- Poison control
- Public health concerns, i.e., avian flu
- Smoking cessation programs

In many telehealth scenarios, clinical health account management teams play a vital role in managing each program’s operations and marketing strategies—paving the way for stakeholders to accomplish their service objectives. Services may include developing marketing recommendations, coordinating service level agreements, delivering education, training, and quality assurance programs.

Managing several million calls a year, a fully-functioning clinical telehealth service represents a large professional workforce that generates significantly better economies of scale than other means of monitoring compliance, counseling and providing information to patients and their families.

The telehealth operational model is inherently flexible and scalable and can be set up to meet the unique requirements of each client. Regardless of configuration, a telehealth contact center is the nucleus of each client’s health outreach efforts, staffed by numerous health professionals working in harmony in a fully-integrated, tele-triage system to ensure efficient, thorough and compassionate service to all its callers and patients.

---

**A Public Health Early Warning System**

Opening up this new channel of access to health information can play a vital role in the event of a medical emergency or disaster, as well as in preventing and reducing the spread of disease and other threats to public health. Disease outbreaks such as the SARS epidemic in 2003 and H1N1 virus in 2010 caused call volumes to nearly quadruple. Telehealth centers are prepared to flexibly accommodate such surges, a capacity that no traditional, paper-based system can match.
WELLNESS AND PREVENTION SERVICES
The potential for telehealth services to engage, educate and empower patients in actively managing their own healthcare is one of the more exciting aspects of telemedicine.

While the demand for health services globally continues to increase due to an aging population burdened by chronic illnesses, many are conditions that can be directly linked to modifiable risk factors such as diet, lack of exercise and smoking. By extending the traditional continuum of care, telehealth services offer a full spectrum of preventive healthcare intervention, behavioral coaching and motivational support designed, to improve outcomes, save costs and increase convenience for patients and their families.

Encouraging people to integrate healthy behavioral support into their daily lives and routines, telehealth solutions can quickly transform passive recipients into better-informed, actively engaged partners in the management of their own fitness, health and wellbeing. This personalized interaction helps them feel confident in assuming responsibility for various aspects of their healthcare regimen and disease management programs. It also results in a significant reduction of stress on the resources of a healthcare system struggling to meet the demands of a rapidly aging population afflicted with chronic diseases, many of which are either preventable or more efficiently managed with appropriate motivational coaching and behavioral controls.

ACCESS MANAGEMENT SYSTEMS
Another component of some telehealth services is hospital access management solutions that centralize patient access, scheduling and pre-registration into more flexible, quality-controlled customer relationship management (CRM) platforms that:

- Improve outcomes
- Facilitate post-care access
- Ensure a more satisfying patient experience
- Reduce costs
- Reduce re-admissions
- Provide organized information/data to fulfill financial and regulatory requirements

Streamlined, patient-focused services automate many scheduling processes and improve accessibility. Utilization of hospital staff and equipment is optimized; lost appointments and no-shows are significantly reduced. Patients can more easily and conveniently access the hospital to manage their appointments, obtain information and have questions answered.

Standardized screening, routing, pre-registration and financial assessment protocols significantly reduce the number of uninsured patients, minimizing revenue losses. Additionally, physician referral systems can be put in place to retain more funded patients within the hospital’s provider network—all solutions that increase profitability while improving patient care.

At the end of the day, healthcare is still all about the person-to-person relationship between patient and provider. In many situations, telehealth can not only substitute for face-to-face contact, but expand and enhance it through a continuous, real-time “voice of service” that more effectively engages and empowers people to take control of their own health and well being.
Telehealth solutions save time and money because they enable healthcare professionals to interact with and monitor patients remotely, adding value to service delivery models. Further, as the geriatric population continues to grow, telehealth enables independent living by supplementing the existing networks of elder care.

New applications are continuously being discovered for skillfully leveraging new communications technologies as an integral part of everyday healthcare practices. Precisely planned and executed through formalized, documented procedures to ensure continuous quality improvement, telehealth represents a vital component of healthcare’s future.

Distance/Time Gap: No Longer an Issue

By proactively leveraging multi-channel communications technology, highly skilled healthcare providers are able to more easily access, diagnose, monitor and motivate patients remotely in a more effective continuum of care in real time and at a much lower cost.
SYKES TELEHEALTH SERVICES

SYKES TeleHealth Services has been providing clinical telehealth solutions since 1997. Our services include patient access management, symptom management, health information, chronic illness care, and wellness and prevention programs providing evidence-informed, accessible healthcare that improves lives and saves money.

Scalable, flexible, streamlined and multi-channel, SYKES TeleHealth Services integrate a full spectrum of the latest communications and medical device technologies with best practices in evidence-based clinical services and customer relationship management (CRM) systems to deliver improved outcomes for our stakeholders.

THE RIGHT TECHNOLOGY

SYKES TeleHealth Services provide a comprehensive matrix of remote telehealth portals such as call centers, helpdesks, live chat support, Interactive Voice Response/Recognition (IVR), video conferencing, web sites, tele-homecare, virtual coaching, personal health records, email, wireless and Bluetooth enabled devices.

Demographically-appropriate platforms such as SMS text messaging for teens and young adults, and social networking tools such as My Space and Facebook, with which patients of all ages are becoming increasingly comfortable are being used by SYKES Telehealth Services to “close the gap” in terms of both service and distance in the continuum of care. Telehealth solutions are facilitating a transformation to a multi-modal healthcare delivery system that empowers communities, caregivers and patients alike.

A CAREFUL BALANCE OF ACCESSIBILITY AND PRIVACY

As technology evolves, so too will the ability to monitor patients more closely. There will be more sophisticated, simpler and less costly tele-monitoring and tele-homecare devices. Patients will be able to upload their health data into their physicians’ electronic medical records (EMR), and patients may have their own electronic personal health records. Concurrently, SYKES is ensuring that secure networks meet the increasing need to protect the personal health information of our users.

ENSURING CLINICAL EXCELLENCE

In keeping with our exacting standards of excellence, SYKES recruits only highly qualified clinicians and support personnel. Our clinical staff places the healthcare needs of patients at the forefront, ensuring the highest possible standard of evidence-based care at every contact.

Extensive personal and professional development, specifically designed to deliver improved care and customer satisfaction, is required of all agents and healthcare staff working in SYKES telehealth centers. Our clinicians are provided rigorous orientation to tele-practice, supported by individual mentors and ongoing coaching to assure a safe evolution from novice to mastery.

Quality assurance and continuous quality improvement are at the core of what SYKES delivers. Our pioneering Science of Service™ approach to operational excellence has allowed us to match the best practices of customer relationship management with evidence-based clinical practice.

SYKES has embedded continuous process improvement into the culture of the organization. Our five step Continuous Improvement Process—Define, Measure, Analyze, Improve, and Control—underlies all performance analyses and improvement recommendations. SYKES has implemented Lean and Six Sigma.
continuous process improvement using tools such as value stream mapping, A3 Plan-Do-Study-Act cycles, root cause analysis and Kaizen events. The fusion of Lean and Six Sigma works particularly well in healthcare because of its emphasis on customer/patient value. By eliminating waste and improving value, one can reduce costs and improve patient satisfaction and loyalty.

**HIGH TOUCH PATIENT CARE**

Every interaction that we implement has elements of best practice communications, behavior change and support – delivered in a thoughtful balance of high-tech and high-touch patient care. The technology of telehealth enables the right provider to be available at the right time; it is the competencies and communications process used by the healthcare provider that makes the difference in patient outcomes.

SYKES views the concept of telehealth coaching in its broadest sense:

- If we are supporting a scheduling service, our callers or users will have a different experience than if they called another program. They will feel cared for and at the center of the process— not someone being shuffled through the system and treated like a number.

- If we are performing triage, we build a relationship with the callers so that they see the process as a journey taken together. They feel empowered and are more likely to follow the advice provided because, in effect, they were part of the decision itself.

- For Wellness and Disease Management clients, we carefully consider the whole person and all other aspects of their life situation. Through the use of motivational interviewing, cognitive behavioral counseling, and social learning protocols, SYKES professionals help our clients to envision, commit to and achieve lasting, positive health behavior change.

**ABOUT US**

A family of global businesses delivering business process outsourcing services, SYKES sets the standard for excellence in customer service. With 13 years of experience delivering healthcare through more than 10 million clinical interactions using the latest telehealth technology, our professionals provide interventions that are:

- On target
  Personalized, evidence-based and accurate

- Just enough
  Efficient, satisfying to the user and no more or less than needed to solve the problem

- Just in time
  Available to users the way they want it, where they want it and when it makes the critical difference

Helping people make health decisions, SYKES delivers services that are always current and relevant. SYKES creates working partnerships with clients to meet the complex healthcare challenges of the 21st century.
Source Notes

2. American Heart Association, 2010 Statistics
3. Fox Business
8. www.mayoclinic.org/medicalprofs-sct/referring.html