

American Telemedicine Association

What Is Telemedicine & Telehealth?

- A radiologist interprets medical images coming from four clinics across the state.
- A consumer uses a wireless phone to automatically upload vital signs and send it to a remote monitoring center.
- A cardiologist checks up on a heart transplant patient while away on a business trip, reviewing the patient's chart, looking at live heart rhythms and talking to the patient.

These are all examples of telemedicine and telehealth, a not-so-new technology that is slowly transforming the way healthcare is delivered. Telemedicine includes a growing variety of applications and services using two-way video, email, wireless phones and other forms of telecommunications technology. Starting out over forty years ago with demonstrations of hospitals extending care to patients in remote areas, the use of telemedicine has spread rapidly and is now becoming integrated into the ongoing operations of hospitals, specialty departments, home health agencies, private physician offices as well as consumer's homes and workplaces.

ATA has historically considered telemedicine and telehealth to be interchangeable terms, encompassing a wide definition of remote healthcare. Patient consultations via videoconferencing, transmission of still images, e-health including patient portals, remote monitoring of vital signs, continuing medical education, consumer-focused wireless applications and nursing call centers, among other applications, are all considered part of telemedicine and telehealth. While the term telehealth is sometimes used to refer to a broader definition of remote healthcare that does not always involve clinical services, ATA uses the terms in the same way one would refer to medicine or health in the common vernacular. Telemedicine is closely allied with the term health information technology (HIT). However, HIT more commonly refers to electronic medical records and related information systems while telemedicine refers to the actual delivery of remote health services using technology. Some of the areas of interest to ATA can be better understood in terms of the services provided and the mechanisms used to provide those services. Here are some examples:

SERVICES

- **Primary care and specialist referral services** may involve a primary care or allied health professional providing a consultation with a patient or a specialist assisting the primary care physician in rendering a diagnosis. This may involve the use of live interactive video or the use of store and forward transmission of diagnostic images, vital signs and/or video clips along with patient data for later review.
- **Remote patient monitoring**, including home telehealth, uses devices to remotely collect and send data to a home health agency or a remote diagnostic testing facility (RDTF) for interpretation. Such applications might include a specific vital sign, such as blood glucose or heart ECG or a variety of indicators for homebound patients. Such services can be used to supplement the use of visiting nurses.
- **Consumer medical and health information** includes the use of the Internet and wireless devices for consumers to obtain specialized health information and on-line discussion groups to provide peer-to-peer support.

- **Medical education** provides continuing medical education credits for health professionals and special medical education seminars for targeted groups in remote locations.

DELIVERY MECHANISMS

- **Networked programs** link tertiary care hospitals and clinics with outlying clinics and community health centers in rural or suburban areas. The links may use dedicated high-speed lines or the Internet for telecommunication links between sites. ATA estimates the number of existing telemedicine networks in the United States at roughly 200 providing connectivity to over 3,000 sites.
- **Point-to-point connections** using private high speed networks are used by hospitals and clinics that deliver services directly or outsource specialty services to independent medical service providers. Such outsourced services include radiology, stroke assessment, mental health and intensive care services.
- **Monitoring center** links are used for cardiac, pulmonary or fetal monitoring, home care and related services that provide care to patients in the home. Often normal land-line or wireless connections are used to communicate directly between the patient and the center although some systems use the Internet.
- **Web-based e-health patient service sites** provide direct consumer outreach and services over the Internet. Under telemedicine, these include those sites that provide direct patient care.

WHAT ARE THE BENEFITS?

Telemedicine has been growing rapidly because it offers three fundamental benefits:

- Improved Access – For over 40 years, telemedicine has been used to bring healthcare services to patients in distant locations. Not only does telemedicine improve access to patients but it also allows physicians and health facilities to expand their reach, beyond their own offices.
- Cost Efficiencies - Reducing or containing the cost of healthcare is one of the most important reasons for funding and adopting telehealth technologies. Telemedicine has been shown to reduce the cost of healthcare and increase efficiency through better management of chronic diseases, shared health professional staffing, reduced travel times, and fewer or shorter hospital stays.
- Patient Demand - Consumers want telemedicine. The greatest impact of telemedicine is on the patient, their family and their community. Using telemedicine technologies reduces travel time and related stresses to the patient. Over the past 15 years study after study has documented patient satisfaction and support for telemedical services. Such services offer patients the access to providers that might not be available otherwise as well as medical services without the need to travel long distances.

About the American Telemedicine Association

The American Telemedicine Association is the leading resource and advocate for telemedicine. ATA is a non-profit association established in 1993 and headquartered in Washington, DC. The Association works closely with medical societies, technology groups, industry leaders, elected officials and others to resolve barriers to the advancement of telemedicine through the professional, ethical and equitable improvement in health care delivery.

ATA is guided through the active involvement of over 2,000 professionals and corporate members. The Association holds the world's largest meeting and commercial exposition focusing exclusively on telemedicine and sponsors a scientific journal regarding the field.

For further information, visit the ATA web site at www.americantelemed.org.

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