inmarsat
The mobile satellite company

Powering eHealth around the world
Providing remote connectivity solutions for eHealth

global beam
gb
telecom

Bridging the healthcare provision gap

Despite carrying the heaviest global burden of disease, emerging nations have the lowest percentage of healthcare workers.

Providing remote communities in developing countries access to quality healthcare is a pressing global challenge. The World Health Organization (WHO) recommends a minimum standard of 2.28 physicians, nurses and midwives for every 1,000 people in any population, yet a WHO survey of 12 African countries showed they had just 0.09 physicians and 0.55 nurses and midwives for that number. However, 0.09 physicians and 0.55 nurses is only an average – in rural communities the figure can be zero.

The challenge for hospitals and clinics is employing and retaining enough trained medical staff to cope with the number of people needing care. Once trained, many professionals decide to work abroad, or stay in the urban centres where they studied.

In countries where more than half the population live in isolated areas, this results in a huge gap between rural and urban healthcare provision, which means communities sometimes have a gap of weeks, months or even years between visits from healthcare workers.

Even when healthcare workers do visit, they may not have access to tools and resources necessary to diagnose or treat every medical condition they encounter. So, the global focus is on finding ways of bridging that healthcare gap by using 21st century solutions to deliver 21st century care.

Technology-enabled eHealth services are one answer, but in remote areas where terrestrial or cellular coverage is patchy or non-existent, they can be severely compromised. Inmarsat understands these challenges and has developed a portfolio of cost effective services to power eHealth solutions where they are needed most. Satellite connectivity provides a vital link enabling local health teams to connect with and access international medical expertise.

Inmarsat's connectivity services enable

> Electronic health records

> eSurveillance systems

> eConsultation

> ePrescription

> Monitoring of vital signs

> Knowledge management systems

> eLearning

> Telemedicine

> mHealth

Saving and improving lives beyond the reach of terrestrial coverage

Through our dependable voice and data services, we enable hospitals and clinics to disseminate resources and expertise.

Our services power eHealth solutions which can assist remote medical teams in assessing and treating health issues and controlling or monitoring outbreaks of communicable diseases. eHealth solutions can also deliver training to health workers where they live. Our global satellite network provides coverage to the most isolated communities in the world and delivers unbeatable 99.9 per cent availability, so they can always rely on getting a connection when they need it.

Through the broadest range of dependable voice and data services, we enable hospitals and clinics to reach out into rural areas and collaborate, facilitating diagnosis and treatment, which would otherwise be impossible.

Essential medical expertise via satellite

Satellite connectivity can make specialised medical care available anywhere.

With BGAN, remote medical teams can access the information they need to diagnose, treat, and monitor patients, sharing vital health statistics with other experts located anywhere in the world, in real-time. Our portable satellite terminals are robust, lightweight and easy-to-use, making them ideal for doctors on the road. Within minutes of arriving in a community, and with no specialist training, health workers can be online, accessing health records and decision support systems to aid in diagnosis and treatment.

Telemedicine applications developed by our solutions providers enable physicians at an urban hospital, or even thousands of miles away in a global centre of excellence, to conduct patient consultations. They can monitor vital signs, take part in live video conferences, and receive live streamed ultrasound scans, ECGs and X-rays for rapid expert diagnosis.

Essential connectivity solutions for remote medical teams

	BGAN Link	IsatPhone 2	IsatHub
Usage	Both fixed and portable	Handheld	Portable – smartphone or tablet connectivity
Services	Standard IP, SMS	Voice, SMS, data	Standard IP, voice, SMS
Transport Protocol	TCP / IP, UDP / IP	Circuit-switched	TCP / IP, UDP / IP
Performance	Up to 492kbps (send and receive)	2.4kbps voice codec	Up to 240 / 384kbps (send / receive) Voice - 4kbps
Latency	800 milliseconds	500 milliseconds	800 milliseconds
Connection charge	No connection charge	30 seconds	50KB data 30 seconds voice
Pricing unit	Available in 2 and 30GB monthly packages	Per minute	Per MB data, Per minute voice, Per SMS
Billing increment	Flat monthly fee, additional data available dependent on package charged per MB	15 seconds	20KB data 15 seconds voice
Typical monthly consumption	2GB and 30GB monthly packages	Unlimited	Dependent on usage
Coverage	Global	Global	Global
Terminal manufacturers	Hughes, Cobham Satcom	Inmarsat	AddValue
Typical applications	Email, internet access, secure VPN, SMS, file transfer	Voice, SMS, short message email, tracking and emergency assistance	Smart phone or tablet connectivity for email, internet and app access, file transfer, voice, SMS

Accessing apps and staying in touch

In today's digital world, access to smart device apps, the internet and telephone calls can make a big difference to health and wellbeing.

Access to your apps

Our IsatHub service enables medical workers to use smart phones or tablets with our global satellite network, no matter where they go. They can access eHealth apps, check or request information and send pictures or data back to HQ about population figures and disease outbreaks, all in real-time. This allows for analysis by health prevention agencies, potentially mitigating the spread and impact of disease.

The service can be accessed through lightweight, portable terminals about the size and weight of a paperback book, and offer data speeds of up to 384kbps.

Stay in touch, stay safe

For healthcare workers operating way outside mobile or terrestrial coverage areas, our IsatPhone 2 handheld satellite phone is a lifeline. Engineered to cope with the most inhospitable environments, IsatPhone 2 delivers a reliable connection and a crystal clear line. Network registration takes under 45 seconds and the satellite phone offers unrivalled battery life – eight hours of talk time and up to 160 hours on standby.

IsatPhone 2 also delivers important safety features. Its emergency assistance button sends GPS location data and a text message to a pre-set contact number, and a tracking capability transmits location information. Customers on monthly plans benefit from free-of-charge worldwide emergency assistance from GEOS. Once configured, a single push of a button will send a message to GEOS' 24/7 emergency response centre which will then contact the user to get them the help they need.

Affordable communications for rural clinics

Often located hundreds of miles away from urban centres, rural clinics can rely on satellite communications to keep them connected.

For rural healthcare centres and longer term medical projects, Inmarsat's fixed satellite services including BGAN Link offer long term connectivity solutions with a wide range of flexible, affordable service plans. Our connectivity provides rural medical teams with instant access to specialised doctors who can assist in diagnosis and treatment.

BGAN Link delivers the reliability and functionality of BGAN with high monthly volumes of always-on Standard IP data for a fixed monthly cost, making it an attractive choice for long-term eHealth and telemedicine initiatives. Terminals have low power consumption and can run on mains electricity, batteries or solar panels

Access to eLearning improves provision of healthcare services

Healthcare professionals in remote, low income and politically unsafe locations can now learn skills and qualifications via satellite.

Our BGAN Link service empowers medical students and healthcare professionals, enabling them to improve their qualifications and medical acumen. Access to online courses and learning materials and the opportunity to attend virtual classes without having to travel hundreds of miles to urban centres, is valuable in the provision of quality healthcare.

Inmarsat's services make learning opportunities available that otherwise may not have been possible and as a result, medical students and qualified professionals are more likely to stay in their communities to practise medicine, providing healthcare advice and drawing from their deep understanding of local lifestyles.

Statistics from the World Health Organization (WHO), 2006 - 2013, show the extent of the healthcare challenge:

> Globally, approximately 6.6 million children under five die every year – almost all could be saved if they had access to simple and affordable interventions such as vaccines, medication and clean water.

> 800 women die every day because of pregnancy and childbirth complications. One third of women in Africa have no access to healthcare professionals when they give birth.

> Around 70 per cent of HIV/AIDS deaths in 2012 were in sub-Saharan Africa. Many people in low income countries do not know their HIV status and so cannot be prescribed anti-retroviral drugs.

Satellite connectivity provided by Inmarsat and eHealth technology solutions can begin to help bridge the healthcare gap
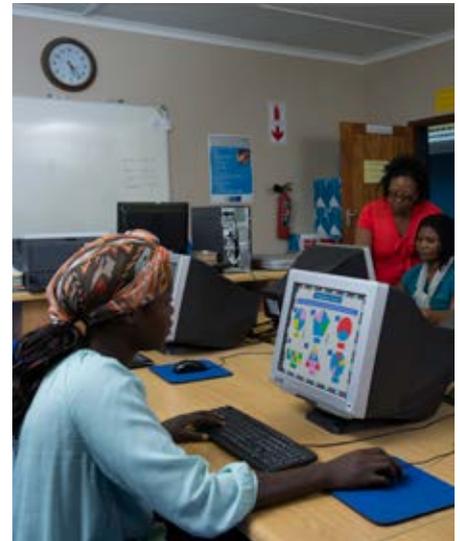
How to Buy

Global Beam Telecom
Dubai - United Arab Emirates
Al Saada Street
United Arab Emirates

Phone: +971 4 4511126
Web: globalbeamtelecom.com
Email: info@globalbeamtelecom.com