



Telemedicine

ENABLERS AND BARRIERS



A Financial Times/Monitor Group Survey Report

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The Financial Times and The Monitor Group partnered in a survey on the future of Telemedicine to explore the following: when will Telemedicine create a major impact, what are the barriers that stand in the way, and what are the enablers that will push its development along. Telemedicine refers to the use of telecommunications technology for medical diagnosis and patient care when the provider and client are separated by distance. Examples of Telemedicine include Telepathology, Telediagnosics, Teleradiology, and Remote Patient Monitoring.

Survey Demographic

A diverse group of 200 *Financial Times* panel members responded to our survey on the major opportunities and barriers to success in Telemedicine. Respondents are from a variety of backgrounds and include: physicians, nurses, administration, medical equipment manufacturing, pharmaceutical, biotech, government, academia, and financial services. A majority of the respondents (61%) are not affiliated with the healthcare field but, like all of us, consumers of healthcare.

Impact and Timing of Telemedicine on Healthcare Delivery





The majority of respondents (57%) believe that Telemedicine will have a significant impact on the way healthcare is delivered in the future. This is not a surprising result given all the attention Telemedicine has received recently.

DEGREE OF IMPACT OF TELEMEDICINE

Responses	number of Responses	%
(no impact at all) 1	1	0.7
2	27	19.7
3	31	22.6
4	47	34.3
(a major impact) 5	31	22.6
TOTAL	137	

When asked about the timing of the impact, most (64.5%) believe that the major impact of Telemedicine will occur over a 4-6 year time frame.

TIME FRAME OF IMPACT OF TELEMEDICINE

Responses		number of Responses	%
1-3 years		12	15.8
4-6 years		49	64.5
7-9 years		11	14.5
10+ years		4	5.3
TOTAL		76	


Factors that Makes Telemedicine Attractive

Our survey respondents were asked to rate the attractiveness of Telemedicine as a means to achieve the following:

- Cost reduction,
- Relief for acute shortage of trained healthcare providers,
- Remote monitoring of patients with chronic illness,
- In-home healthcare,
- Making first class healthcare available to remote areas,
- Getting instantaneous response to healthcare issues, and
- Getting rapid medical response after a disaster, and
- Other.

Respondents ranked the attractiveness of these issues in this order:

WHAT MAKES TELEMEDICINE ATTRACTIVE

Responses	Number of Responses				Weighted Score ¹	
	L	M	H	Tot.		
Getting instantaneous response to healthcare issues	1	43	85	129	342	
Remote monitoring of patients with chronic illness	8	38	84	130	336	
Making first class healthcare available to remote areas	4	44	80	128	332	
Getting rapid medical response after a disaster	9	40	80	129	329	
In-home healthcare	13	51	64	128	307	
Relief for acute shortage of trained healthcare providers	11	68	49	128	294	
Cost reduction due to diagnosis/treatment by less expensive medical persons in the developing countries	36	51	42	129	264	

Cost reduction was not ranked as high as the performance-related features of Telemedicine, such as *getting instantaneous response* and enabling *remote monitoring of patients*. This assessment would perhaps change if cost reduction translates to reduced premium or out of pocket expense. It could also be that as far as health is concerned, cost is less important than the quality of service.

Those respondents who chose “other” listed the following types of reasons why Telemedicine is attractive:

“Effective use of limited resources”.

“You have the ability to rank providers with evaluative tools and to access them from anywhere.”

“Telemedicine brings the best in emergency medicine – images to the doctors; images and protocols sent by doctors to the field.”

“Telemedicine puts a downward cost pressure on the U.S. healthcare system, and offers increased competition and choice.”

“The ability to rapidly query more than one source of information for quick second opinions.”

“The aging population needs gap fillers for medical delivery, and these demographics make Telemedicine imperative.”

“Ease in getting a second opinion, and thus avoiding unnecessary or unduly hazardous procedures.”

“Services for individuals in need of communications assistance or travel assistance.”

“Quality, instant healthcare!”

“It will free up time for traditional face-to-face medicine to concentrate on better service delivery.”

“Expert collaboration, reduction of infection, increase in healthy competition, leverage of scarce technology.”

“Consistent delivery of care that is monitored and tracked at centralized locations.”

“Improved accuracy of diagnoses.”

There was one respondent who responded that Telemedicine is not attractive, because “Telemedicine protects the political establishment, not the interests of the public.”

Potential Barriers to Adoption of Telemedicine

Respondents were surveyed on the potential barriers that would affect Telemedicine. Potential barriers included:

- Inadequate insurance coverage for the use of Telemedicine,
- Active resistance by local healthcare providers,
- Public policy to stem potential job loss,
- Lack of quality of care or diagnosis,
- Expense in acquiring Telemedicine, and
- Lack of qualified remote healthcare providers.

The responses are as follow:

BARRIERS TO TELEMEDICINE

Responses	Number of Responses				Weighted Score ¹
	L	M	H	Tot.	
Active resistance by local healthcare providers	19	39	70	128	307
Inadequate insurance coverage for the use of Telemedicine	18	51	59	128	297
Lack of qualified remote healthcare providers	23	59	46	128	279
Lack of quality of care or diagnosis	26	53	47	126	273
Public policy to stem potential job loss	28	60	39	127	265
Expense involved in acquiring Telemedicine equipment	33	62	33	128	256

What is interesting in these responses is that the perceived inability of the current establishment (healthcare providers, insurers) to change is considered to be a bigger barrier than the quality of service the recipients will get. Also, the expense involved in acquiring equipment is not considered to be a major barrier because the respondents do not believe that it will affect their out of pocket cost.

Comfort Level and Acceptance of Telemedicine

When asked if the respondent would accept being treated by someone not in front of him/her, a majority of the response was, it depends (49%). Some (35%) of the respondents said yes while a minority (16%) said no.

Those that said “No” stated the following reasons for their hesitation:

STRONG RESERVATIONS ABOUT TELEMEDICINE

Responses	Number of Responses					Tot.	Weighted Score ¹
	1	2	3	4	5		
He/she may miss some symptom, indicators	0	0	1	13	17	21	100
I will not know how qualified that provider is	0	3	3	1	14	21	89
I can not trust someone I can not be face-to-face with	0	2	4	5	8	19	76
I will only work with professionals I have dealt with in the past	2	3	10	3	3	21	65

Additional reasons cited for not accepting Telemedicine are:

“I would be very concerned about the increased potential for the service to be a scam.”

“Diagnosis of medical problems requires more than just lab and other tests. Medicine is an art, not a science. A doctor can see things that a patient might not even realize are symptoms.”

“I would always choose direct personal interaction over any e-transaction. I would accept remote healthcare advice or consultation, but I would expect that it would be in conjunction with my regular physicians.”

“Good medicine is still a hands-on proposition. Remote medicine of many illnesses will be problematic.”

“One’s health is the most important and personal issue and one does not compromise on diagnosis or treatment.”

Those who stated that their willingness to accept Telemedicine depends on the specific situation voted in the following manner:

HESITATIONS ABOUT TELEMEDICINE

Responses	Number of Responses						Weighted Score ¹
	1	2	3	4	5	Tot.	
Depends on how comfortable I am made to feel about the qualifications of the remote healthcare person	0	3	6	19	33	61	265
Depends on the type of ailment (e.g., for serious ailments I will not accept telemedicine)	2	2	8	21	30	63	264
Depends on the availability of specialist in my locality	3	5	11	22	21	62	239
Depends on the cost of the alternative (e.g., use it only if I get a substantial discount)	7	14	17	18	7	63	193

The following comments are illustrative of what factors will be important in a recipient accepting Telemedicine:

“The quality of the treatment.”

“The ability to have follow-up from the same doctor should not be compromised.”

“The true portability of Telemedicine.”

“The responsiveness and communication skills of the Telemedicine process.”

“How much access is available to the medical professional. How do I know he is a true expert?”

“The ability to communicate clearly, precisely, and in my language.”

“The feeling that you are receiving personal and attentive care.”

“The Primary Care physician’s opinion of the ability of the remote healthcare expert.”

“The track record of the remote physician.”

Willingness to Accept Telemonitoring

Frequently, the decision to use Telemedicine is made by a caregiver of a relative in need of constant monitoring. We probed the willingness of such caregivers in using Telemonitoring.

A majority, (56%), of caregivers who have a relative who needs constant health monitoring, said that they will consider Telemonitoring, 33% stated it depends and a small minority, and 11% said no.

The reason given for not accepting Telemonitoring was the perceived unwillingness of the sick relative to accept such an arrangement. The principal factor that would affect decision making of those hesitating is confidence in the equipment’s functionality.

Conclusions

The survey reveals several enablers and barriers of Telemedicine:

- The three most important factors that make Telemedicine attractive are: getting instantaneous response to healthcare issues, remote monitoring of patients with chronic illness, and making first class healthcare available to remote areas.
- The three major barriers that would come in the way are: active resistance by local healthcare providers, inadequate insurance coverage for the use of Telemedicine, and lack of qualified remote healthcare providers.
- The healthcare recipients have several concerns in accepting Telemedicine, the principal among them are the fear that some symptoms may be missed by the distant provider, and the uncertainty regarding qualification of the provider.
- The factors the healthcare recipient will consider before accepting Telemedicine are how comfortable they are made to feel about the qualification of the remote healthcare provider, and the seriousness of the ailment.
- In spite of these barriers, most participants believe that in 4-6 years Telemedicine will start making a significant impact on the way healthcare is delivered in the U.S.

ENDNOTE

¹ Original qualitative survey responses (low, medium, high) converted into scores by assigning weights to responses (1, 2, 3).

Monitor Technologies

MonitorTechnologies is a group within IMI, Monitor's innovation and technology strategy unit, that applies tools, processes and a network of technology experts to address issues at the intersection of technology, strategy, and innovation. Through a diverse network of experts, Monitor Technologies is dedicated to creating provocative insights on the future implications of emerging technologies in a variety of industries.

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