

Workshop: Designing a Virtual Reality Digital Health Plan for Your Practice

COMPANION WORKBOOK







BACKGROUND

Designing a Virtual Reality Digital Health Plan for Your Practice

An Excerpt from the [Applied Virtual Reality in Healthcare: Case Studies and Perspectives](#) contributed by Fran Ayalasomayajula, President of Reach.

New applications of XR technology are being introduced into healthcare at an increasing rate. Medical education and training, patient education, surgical planning and therapy are the four major sectors of healthcare in which XR is applied. Across all these segments, healthcare is beginning to witness an increased adoption of XR innovation. Ongoing research and published studies with significant findings for therapies, training, and patient engagement have made the difference. In major institutions and even private practices around the world, clinicians and patients are adopting advanced VR applications.

Physicians are witnessing the value of XR in helping them solve problems in progressive and pragmatic ways. With efficacy and efficiency, the door is open to apply new tools and methods to address clinical challenges. Even as XR remains in its infancy, early-stage development is growing and there are a number of software developers. Rehabilitation and assisted living technology, diagnostic tools, and training simulations are popular applications. Most recently, the application of this technology within the clinical area is enabling care providers to extend the delivery of care and assisted care beyond the clinical setting.

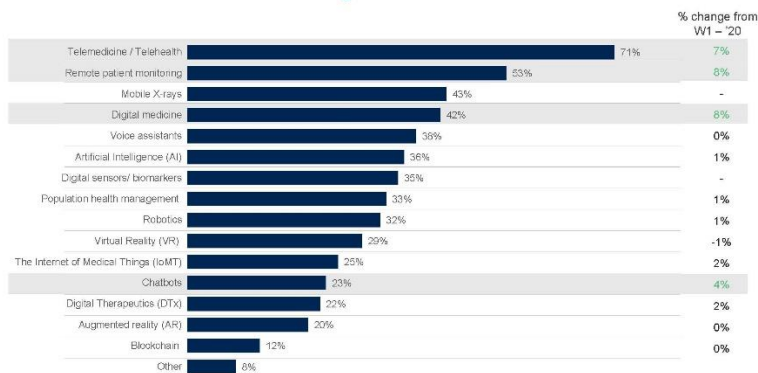
We have not even scratched the surface in terms of areas of opportunity for XR. Research suggests that many clinicians are not familiar with the clinical applications and approaches to adopting XR technologies (Figure 1), let alone how to get started. Additionally, as Reach’s most recent study on XR demotes, clinicians are deterred by their perceptions of the technology being too complex and burdensome to implement (Reach 2021)

Figure 1. Knowledge of XR and other digital technologies

Source: Ipsos MORI. (2021). Digital Doctor Survey 2021.

Knowledge of digital concepts relating to healthcare has increased across all areas, but lags in less popular sectors

‘Know a lot’ about different technologies/ solutions in Healthcare



Source: Q1. To what extent are you aware or not aware of the following technologies and solutions in relation to healthcare?
Base: All respondents W2 (n=1454), W1 (n=1378)





PURPOSE

This workbook is designed to accompany Reach's Workshop on Designing a Virtual Reality Digital Health Plan for Your Practice.

The purpose of this workbook is to provide healthcare professionals points of consideration in the following areas:

- Identification of areas of opportunity for the application of XR in clinical practices, care facilities, and in patients' domiciles
- Approaches to the integration of XR technology into the clinical workflow
- Approaches to the selection of vendors
- Influencing organizational behavior and change management through the digital transformation process

LEARNING OBJECTIVES

At the end of this workshop participants will be able to:

- Recite a thoughtful problem statement
- List value propositions in the adoption of XR solutions that align to your practice or institution
- Recognize and provide counterapproaches to potential challenges in gaining buy-in and implementation
- Identify available resources and areas of gaps along with approaches for addressing or legitimately deprioritizing alleged gaps
- Recalling best practices in the application of XR in health care



YOUR WHY

Define a problem statement. What is the problem you are trying to solve? List the current pain points – resource and revenue impact.

Pain Points	Problem Statement

NOTES:



SOLUTION DEVELOPMENT

Write a solution statement.

How can technology enhance, change or positively impact your problem?

Choose a technology that is cost effective, deployable, scalable, adaptable, accessible, and secure.

Proposed Solution

NOTES:



MISSION ALIGNMENT

What is the proposed XR solution? In what way will XR address the pain point you have identified? issues? How aligned is this approach to your organizations mission and organizational level of beliefs and values?

Mission, Beliefs & Values	Alignment?



KEY STAKEHOLDERS & LEADERS

Who are the key stakeholders you need to consider? What's in it for them (WIFT)? How will you engage them? Be sure to also think about those that are frequently overlooked.

Stakeholders	WIFT	Approaches to Engagement
Executive Sponsors:		
Champions:		
Users:		
Support Roles:		
Other Stakeholders:		

NOTES:



CHANGE MANAGEMENT

What impact do you think your proposed XR solution will have on the clinical workflow and how do you prepare your clinical team for that impact?

Impact(s)	Mitigate	Enhance
#1		
#2		
#3		
#4		
#5		
Additional impact:		

NOTES:



RESOURCES, PARTNERSHIPS & COLLABORATIONS

Identify key resources that will be help along the away. These may change overtime

Sources: Internal, Partner, Vendor, Other

Knowledge Areas Needed	Source	Support Roles Needed	Source	Revenue Models	Source

NOTES:



DUE DILIGENCE

Pilot versus Proof of Concept versus Trial Period...What are you really ready for and why?
Notes:

Risk Tolerance / Risk Scale

Your Definition:



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Notes:

Desk Research

Type: Peers, Publications, Conferences, Collaborators

Type	Source	Key Finding(s)

Notes:

Vendor Selection

Must Have's	Could Have's	Should Have's

Notes:



VR HEALTH CARE: BEST PRACTICES FOR CLINICAL IMPLEMENTATION

AIMed Magazine vol 3: [VR Health Care](#) p 62-65. [Download](#)

Diane Gromala, PhD, Canada Research Chair in Computational Technologies for Transforming Pain, and the Founding Director of the Chronic Pain Research Institute and the Pain Studies Lab at Simon Fraser University; Howard Rose, M.Ed, CEO and Founder of Firsthand Technology, and Fran Ayalasomayajula, MPH, PMP, President of Reach Healthcare, co-produced a series of recommended best practices for the use of VR in clinical implementation. While all three authors stress the need for further research to be conducted; they attest that these recommendations, based on years of observation, are a good starting point for those who are considering the adoption of VR in their clinical practices. Here are ten (10) of their top recommendations:

1. Mitigate the risk of simulation sickness by deploying professional grade VR technology
2. Select hardware that can withstand the use of hospital grade germicidal wipes and consider the use of VR covers
3. Assess patient physical and mental state prior to administering VR
4. Screen for patients with pre-existing conditions of motion sickness, dizziness, or lightheadedness
5. Make sure the patient knows risks and potential benefits, and provide demonstrated instructions prior to the patient taking on the full experience
6. Ensure the VR headset fits the patient, is not too tight or heavy, and adjust the focus of the VR headset
7. Children or adults with significantly reduced physical or mental capacity should be supervised, including when VR is used in conjunction with narcotic or other strong medication
8. Limit VR to 60 minutes and take breaks between sessions of at least 10–15 minutes.
9. Provide the patient a way to signal you if they encounter problems, and encourage them to do so
10. Monitor patients for potential problems: keep an eye out for a patient's involuntary muscle twitches, reaching to grab onto something they can stabilize themselves on, loss of balance, growing frustration or anxiety.



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About Reach

Reach is a 501c3 global social impact organization focused on improving the healthcare experience of both patients and providers. Reach is the founder of Resilience Healthcare (<http://resilience.healthcare>) which focuses on addressing clinician burnout through resilience building resources and supportive peer groups; the National Save Moms Campaign (<http://savemoms.us>), Save Moms Global (<http://savemoms.global>), Maternal Application of Technology for Community Health (MATCH) Coalition (<http://matchcoalition.us>), and Happy Mama (<http://happymama.global>) - **Winner of the CES 2022 Tech Innovation Award.**

Website:

<https://reachtl.org/>

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