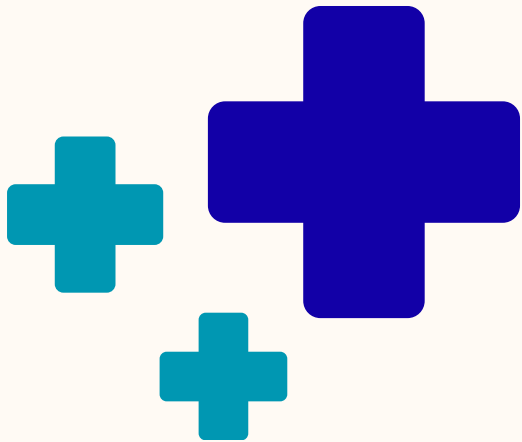


*The Role of*

**VISUAL**

**STORYTELLING**

*in Healthcare Settings*



Visual communication is a powerful tool that leverages images, graphics, and design principles to convey information. In healthcare, effective visual communication can make a significant impact on improving patient outcomes, reducing errors, and increasing the overall efficiency of healthcare delivery. With the complex nature of medical information, the need for clear, concise, and engaging communication is essential to ensure that patients and healthcare providers are on the same page.

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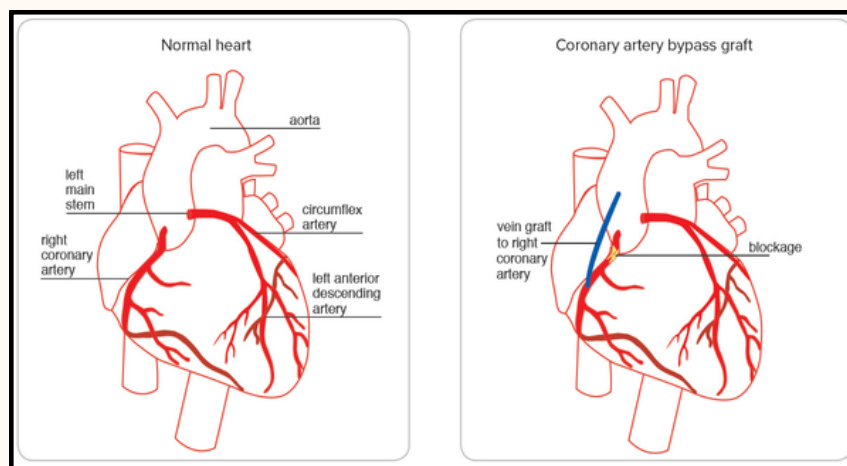
# Introduction

The importance of visual communication in healthcare goes beyond just enhancing understanding; it serves as a bridge to better care methods that ensure accessibility, promote engagement, and improve compliance with treatment regimens. To understand the role of visual communication in healthcare, it is important to explore why visual storytelling is necessary in the field, discuss the methods for creating successful visual communication, and examine what the future holds for visual communication in healthcare.

## The Importance of Visual Storytelling in Healthcare

### Overview of Visual Storytelling

Visual storytelling refers to the practice of conveying a narrative or information through visual elements such as images, videos, infographics, and diagrams. Unlike written or verbal communication, visual storytelling allows information to be processed quickly because it can “cut across age, culture, language, literacy, and gender barriers” (Scott, et al. 1). In healthcare settings, where patients are often met with complex medical terms and intricate procedures, visual aids can simplify difficult concepts and improve overall comprehension. By using visuals to tell a story, healthcare professionals can ensure that patients understand their conditions, treatment options, and necessary follow-up care.



For instance, when explaining the process of a heart bypass surgery, a diagram showing the heart and arteries, accompanied by arrows indicating the flow of blood and the surgical procedure, can make the concept more accessible. Such visual aids transform abstract, technical information into something tangible that a patient can easily grasp, helping them to feel more informed and empowered in their healthcare journey.

## Enhancing Patient Understanding

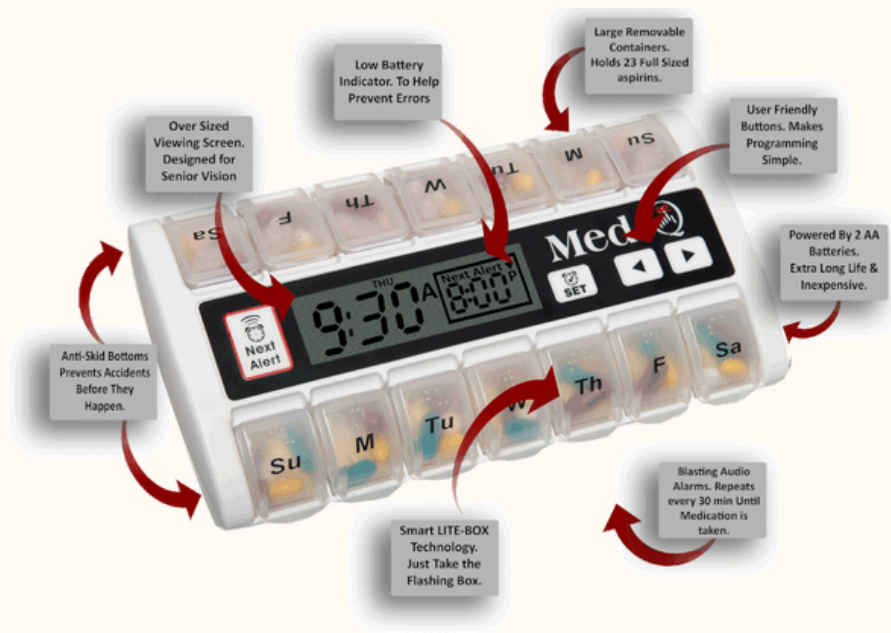
Visuals are particularly useful in explaining medical conditions and treatments that may otherwise seem overwhelming or difficult for patients to comprehend. Consider the example of explaining a cancer diagnosis. For many patients, understanding the stages of cancer, the available treatments, and their potential side effects can be daunting. By using visual aids such as diagrams, charts, or even animated videos, healthcare providers can break down complex medical information into smaller, more digestible pieces. This helps patients make informed decisions about their care and eases the anxiety that often accompanies a serious diagnosis.

Medical illustrations, for example, are often used to show how a disease progresses or to explain the effects of a particular medication. For patients with chronic conditions like diabetes, a series of images that demonstrate how blood sugar affects the body can increase their understanding and encourage proactive management of their health.

## Improving Patient Engagement & Compliance

Visual communication also plays a crucial role in patient engagement and adherence to treatment plans. When patients are visually involved in their treatment journey, they are more likely to remember instructions and feel more confident in managing their health.

An incredibly common example of a visual tool used to enhance compliance is the medication calendar or pillbox. These visuals not only show the schedule of medications but also provide a visual reminder of the treatment plan, making it easier for patients to follow instructions and avoid errors. Similarly, visual reminders such as charts showing blood pressure or glucose levels can empower patients to track their progress, leading to greater engagement in their own care.



## Cross-Cultural & Language Considerations

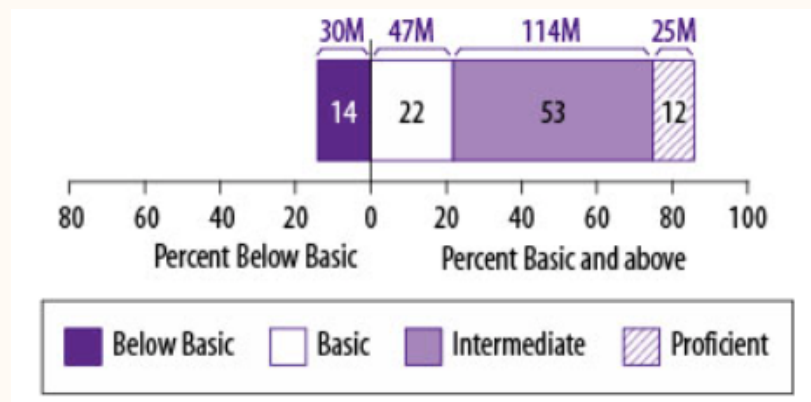
One of the most significant challenges in healthcare is ensuring effective communication across diverse populations. Patients may speak different languages, come from varying cultural backgrounds, or have different levels of health literacy. Visual communication can help bridge these gaps. For example, medical signage in hospitals often includes universally recognizable symbols, such as the red cross for emergency rooms or the wheelchair symbol for accessibility, ensuring that non-native speakers can navigate healthcare settings.

Visual aids that use universally understood symbols or diagrams can also help explain health concepts to patients who may struggle with the language or have low literacy. In a community health setting, a simple infographic showing the steps to properly wash hands or to manage a chronic illness can transcend language barriers. This kind of universal design ensures that crucial health messages are understood by everyone, regardless of their background.



## Reducing Health Literacy Disparities

Health literacy refers to the ability to understand and act on health-related information. According to the National Assessment of Adult Literacy, over 75 million adults have a basic or below basic understanding of complex medical content. Visual communication can play a vital role in addressing these disparities in a non-confrontational manner; many patients with low health literacy will conceal their lack of understanding due to embarrassment. Clear, straightforward visual aids can provide patients with the tools they need to make informed decisions about their health.



For example, visually engaging materials, such as brochures or posters that explain disease prevention strategies, are crucial in empowering people to take control of their health. Visual storytelling methods like step-by-step guides on how to administer medication or use a medical device can significantly increase a patient's ability to follow care instructions. As such, visual aids help to eliminate the barriers posed by low health literacy, ensuring that all patients, regardless of their education level, have access to critical health information.



# The Methods for Creating Effective Visual Communication in a Healthcare Setting

## Types of Visual Communication Tools in Healthcare

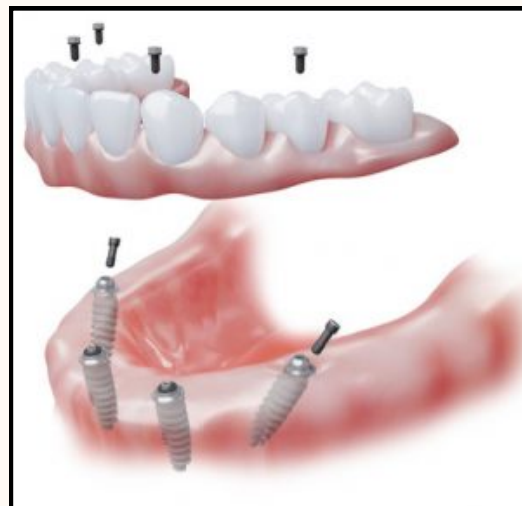
In healthcare, there are several visual communication tools that can be used to enhance understanding and engagement.

**Infographics:** Infographics are one of the most popular tools for conveying complex medical information in a simple, easy-to-understand format. These visuals combine images, graphs, and text to summarize essential information. For example, a public health campaign about smoking might use an infographic to show the risks of smoking, the benefits of quitting, and the steps involved in kicking the habit.



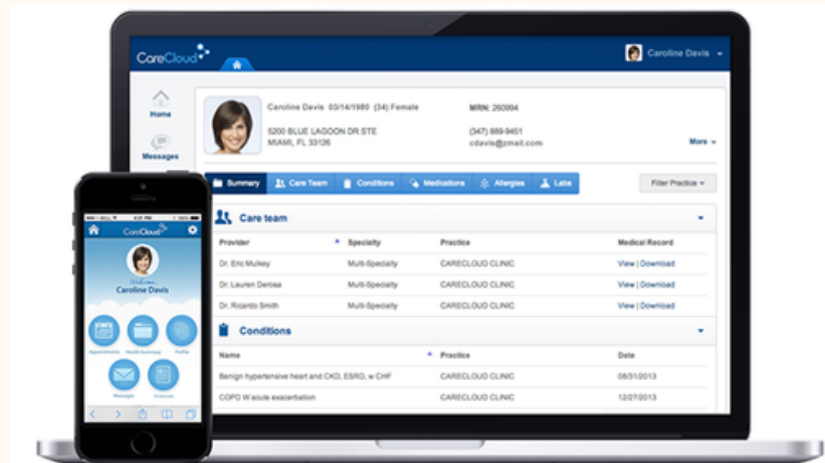
### Medical Illustrations and Diagrams:

These visuals are commonly used to depict anatomical structures, diseases, and medical procedures. Diagrams are especially helpful when explaining the functioning of the human body, as they allow patients to see how different organs work together. These illustrations can also show surgical processes or how specific treatments work in a simple, clear manner.





**Interactive Digital Tools:** Interactive digital tools, including patient portals, apps, and online diagrams, allow patients to engage with their healthcare information in a dynamic way. These tools can display patient-specific data, such as lab results or treatment options, and even guide patients through self-management techniques using visual cues.



**Video and Animation:** Videos and animations have become increasingly popular in healthcare communication. These tools can provide step-by-step instructions for complex procedures or explain medical conditions using motion and sound, which makes the material more engaging and easier to remember. For example, animated videos are commonly used to show how medical devices, like inhalers or blood glucose monitors, should be used correctly.

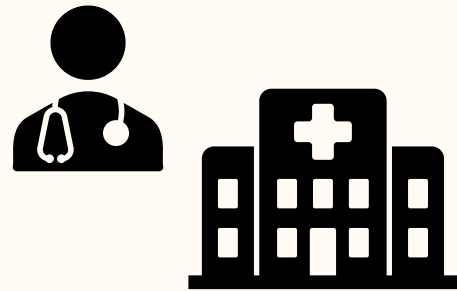




## Principles of Designing Effective Visuals

The success of visual communication depends on how well it is designed. Effective healthcare visuals must adhere to several principles:

**Simplicity and Clarity:** Overcomplicated visuals can confuse rather than clarify. Effective healthcare visuals should be simple and easy to follow, with clear labeling and minimal text. The goal is to ensure that the message is communicated at a glance, especially in emergency situations where time is of the essence. This principle is what makes icons so successful in a healthcare setting.



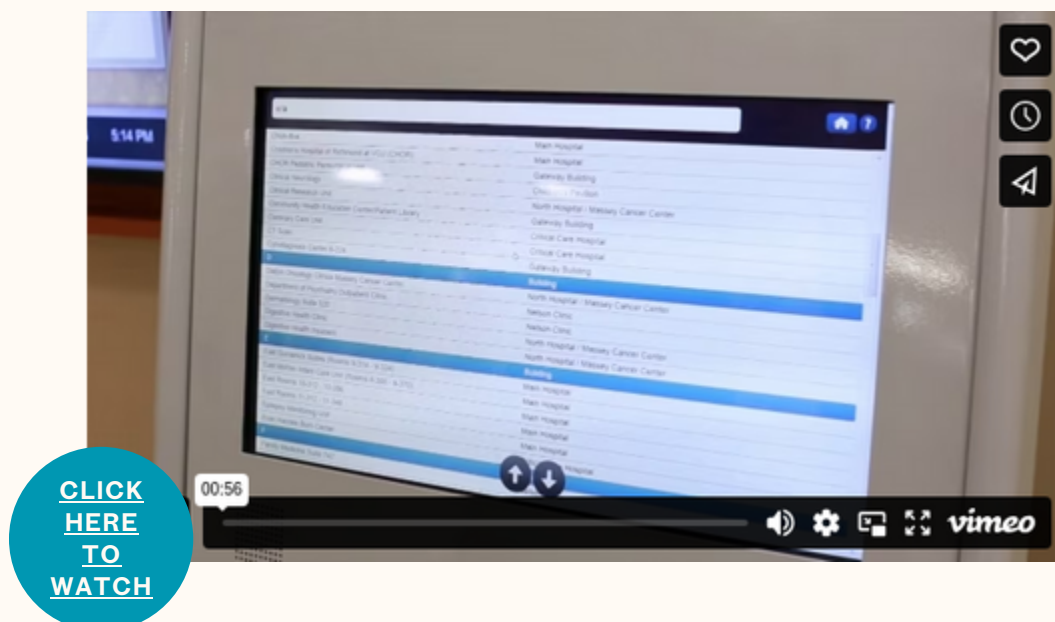
**Consistency:** In healthcare settings, consistency is key. Visual elements, such as colors and typography, should be consistent across various materials—be it patient handouts, hospital signage, or digital platforms. This ensures that patients can quickly recognize and understand the visuals, even when encountered in different contexts.



**Color and Typography:** Color choices should be deliberate, as they can influence a patient's emotional response and ability to understand information. For example, red might be used to draw attention to critical information, while softer colors like green can be used to convey calmness. Typography should be clear and readable, avoiding overly decorative fonts that might distract from the message.

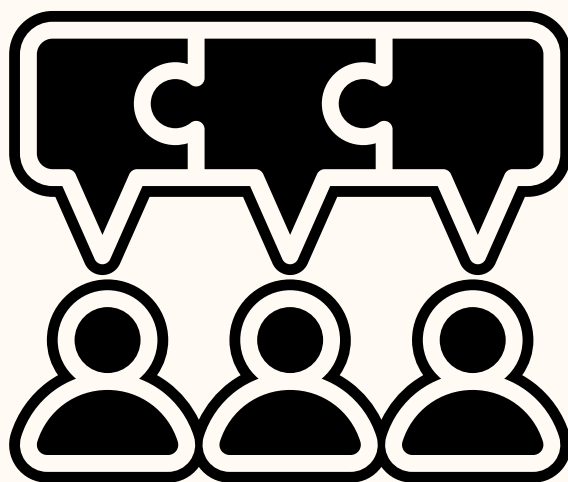
TRANQUILITY AUTHORITY WISDOM STABILITY CLEANLINESS FRESHNESS FREEDOM  COLD SADNESS DEPRESSION	LOVE EXCITEMENT WARMTH ROMANCE PASSION SPEED LUCK  RAGE BLOOD AGGRESSION	HEALTH HAPPINESS FRIENDLINESS ENTHUSIASM ENERGETIC YOUTH FUN  RUIN DANGER DESOLATION	CREATIVITY FRIENDLINESS CHEERFULNESS ENERGETIC OPTIMISM WARMTH JOY  ILLNESS DANGER MADNESS	NATURE GROWTH PROSPERITY HEALTH HOPE LUCK LIFE  ENVY POISON CORRUPTION
ROMANCE NURTURING INNOCENCE DELICATE PLAYFUL SWEET KIND  IMMATURITY DECEPTION MATERIALISM	LUXURY MYSTERY SPIRITUALITY ATTRACTION FUTURE ROYALTY MAGIC  ILLUSION DECEPTION DETACHMENT	LUXURY DARKNESS SOPHISTICATION AUTHORITY ELEGANCE MYSTERY POWER  FEAR LONELINESS HOPELESSNESS	LIGHT HOLINESS CLEANLINESS SPIRITUALITY INNOCENCE PURITY HOPE  COLD ISOLATION EMPTINESS	STRENGTH CALM TIMELESSNESS NEUTRALITY AUTHORITY WISDOM STABILITY  DULL LIFELESS ABANDONMENT

**Accessibility:** Healthcare visuals should be designed with accessibility in mind. For example, images should be colorblind-friendly, and text should be large enough for patients with visual impairments to read easily. Additionally, alternative formats such as audio or text-to-speech can help accommodate patients with other disabilities. A company that leads the way in accessible healthcare design is MedMaps. They create interactive kiosks where patients can find directions and print the instructions directly.



## Incorporating Feedback from Patients and Providers

To create effective visual communication, input from both patients and healthcare providers is crucial. Healthcare professionals who work directly with patients understand the challenges they face and can provide valuable insights into what types of visuals will be most helpful. Additionally, patients can offer feedback on whether the visuals are clear, engaging, and easy to understand. Involving both parties in the design process ensures that the final product will be both practical and patient-centered.



## Technology Integration

As technology continues to evolve, it provides new opportunities for visual communication in healthcare. Electronic health records (EHRs) allow for patient-specific data to be integrated into visual tools, providing tailored health information. Furthermore, emerging technologies like artificial intelligence (AI) are being used to analyze patient data and create personalized visuals. For instance, AI can identify patterns in patient data, then generate customized health dashboards that visually represent critical information like test results, treatment plans, and upcoming appointments.

# The Future of Visual Communication in Healthcare

## Technological Advancements

Looking ahead, the future of visual communication in healthcare will be shaped by technological advancements, particularly in augmented reality (AR) and virtual reality (VR). These technologies have the potential to revolutionize patient education and healthcare delivery. AR, for example, can be used to overlay medical information onto a real-world environment, helping patients better understand their anatomy and medical conditions. Similarly, VR can immerse patients in educational simulations that demonstrate medical procedures or guide them through their recovery process.



## Telemedicine & Remote Care

As telemedicine continues to grow, visual communication will become increasingly important in remote healthcare settings. Patients may not always have the opportunity to meet with healthcare providers in person, so using visuals in virtual consultations will be crucial for ensuring clear communication. Visual aids can help remote patients better understand their health status and treatment options, making telehealth consultations more effective and accessible.

## Personalized Healthcare Visuals

The future will likely see a greater emphasis on personalized healthcare communication. As medical technology advances, patients will receive more tailored healthcare visuals that cater to their unique conditions and needs. For example, patients may be provided with 3D models of their bodies that highlight areas of concern, along with interactive visual guides to help them understand their specific treatment options.



## Global Health & Equity

Finally, visual communication will play a critical role in addressing global health challenges. In low-resource settings, visual aids can be used to spread health education, prevent diseases, and reduce health disparities. By using culturally appropriate visuals, healthcare organizations can ensure that key messages are understood by diverse populations worldwide, helping to improve health outcomes on a global scale.

# Conclusion

Visual communication is an indispensable tool in healthcare, improving patient understanding, enhancing engagement, and supporting better health outcomes. By using various visual tools, from infographics and diagrams to advanced technologies like AR and VR, healthcare professionals can simplify complex information, bridge communication gaps, and empower patients to take control of their health. As technology continues to evolve, the future of visual communication in healthcare looks promising, with personalized and accessible solutions becoming increasingly common. With the continued development of these tools, the healthcare industry will be better equipped to meet the needs of diverse patient populations, ultimately contributing to a more efficient and effective healthcare system.



# References

Aid, Australia Wide First. "The Comprehensive Guide for EpiPens." Australia Wide First Aid, 31 May 2023, [www.australiawidefirstaid.com.au/resources/comprehensive-guide-for-epipens](http://www.australiawidefirstaid.com.au/resources/comprehensive-guide-for-epipens).

Axial3D. "How Patient-Specific Anatomical Models Are Transforming Pre-Operative Planning - Axial3D." Axial3D, 3 Aug. 2021, [axial3d.com/how-patient-specific-anatomical-models-are-transforming-pre-operative-planning/](http://axial3d.com/how-patient-specific-anatomical-models-are-transforming-pre-operative-planning/). Accessed 15 Dec. 2024.

Bonner, Carolann. "Using Gestalt Principles for Natural Interactions." Thoughtbot, 15 Sept. 2014, [thoughtbot.com/blog/gestalt-principles](http://thoughtbot.com/blog/gestalt-principles).

Brown, Michael. "How to Correctly Use an Inhaler." YouTube, 2024, [youtu.be/yvzhp1Gr6hE?si=8s80MfS5-GblovSl](https://youtu.be/yvzhp1Gr6hE?si=8s80MfS5-GblovSl). Accessed 15 Dec. 2024.

"Color Psychology: Understanding the Impact of Color on Emotions and Behavior - JD School of Design." JD School of Design, 19 Mar. 2024, [www.jdsd.in/color-psychology-understanding-the-impact-of-color-on-emotions-and-behavior/](http://www.jdsd.in/color-psychology-understanding-the-impact-of-color-on-emotions-and-behavior/).

Dennison, Bill. "Practical Visual Literacy for Science Communication." Umces.edu, Integration and Application Network, 28 Mar. 2017, [ian.umces.edu/blog/2017/03/28/practical-visual-literacy-for-science-communication/](http://ian.umces.edu/blog/2017/03/28/practical-visual-literacy-for-science-communication/). Accessed 15 Dec. 2024.

Fussell, Grace. "The Psychology of Fonts (Fonts That Evoke Emotion)." Envato, 16 Feb. 2023, [elements.envato.com/learn/the-psychology-of-fonts-fonts-that-evoke-emotion](https://elements.envato.com/learn/the-psychology-of-fonts-fonts-that-evoke-emotion).

Galmarini, Elisa, et al. "The Effectiveness of Visual-Based Interventions on Health Literacy in Health Care: A Systematic Review and Meta-Analysis." BMC Health Services Research, vol. 24, no. 1, BioMed Central, June 2024, <https://doi.org/10.1186/s12913-024-11138-1>.

Joy Lo, Chih-Wei, et al. "How Universal Are Universal Symbols? An Estimation of Cross-Cultural Adoption of Universal Healthcare Symbols." HERD: Health Environments Research & Design Journal, vol. 9, no. 3, Jan. 2016, pp. 116–34, <https://doi.org/10.1177/1937586715616360>.

Kurkula, Stan. "Hospital Branding: Tips and Strategies That Work in 2023." Stan Branding, 2 Feb. 2022, [stanbranding.com/blog/hospital-branding/](http://stanbranding.com/blog/hospital-branding/).

"LinkedIn." LinkedIn.com, Goavega, 2024, [www.linkedin.com/pulse/generative-ai-personalized-medicine-future-healthcare-yco0c](https://www.linkedin.com/pulse/generative-ai-personalized-medicine-future-healthcare-yco0c). Accessed 15 Dec. 2024.

“Med Maps | Hospital Wayfinding Interactive Campus Maps.” Med Maps | Hospital Wayfinding Interactive Campus Maps, 2020, [www.medmaps.com/](http://www.medmaps.com/). Accessed 15 Dec. 2024.

“MED-Q America’s #1 Pill Box Medicine Box Medication Reminder.” Americas Best Smart Pill Box with Alarm, 18 June 2019, [medqpillbox.com/med-q-americas-1-pill-box-medicine-box-medication-reminder/](http://medqpillbox.com/med-q-americas-1-pill-box-medicine-box-medication-reminder/). Accessed 15 Dec. 2024.

“National Assessment of Adult Literacy (NAAL).” Nces.ed.gov, [nces.ed.gov/naal/health\\_results.asp](http://nces.ed.gov/naal/health_results.asp).

One Dose Blog. “What Is Remote Healthcare and Why Is It Important?” One Dose, 4 July 2023, [www.onedose.io/en/what-is-remote-healthcare-and-why-is-it-important/](http://www.onedose.io/en/what-is-remote-healthcare-and-why-is-it-important/).

“Patient Portals Saving Medical Practices in Overhead, Improving Collections, Managers Say.” Healthcare Finance News, [www.healthcarefinancenews.com/news/patient-portals-saving-medical-practices-overhead-improving-collections-managers-say](http://www.healthcarefinancenews.com/news/patient-portals-saving-medical-practices-overhead-improving-collections-managers-say).

Paulovich, Belinda. Designing for Health Education: A Multidisciplinary Approach to Visual Communication. [researchoutput.csu.edu.au/ws/portalfiles/portal/9743396/75293\\_Conference\\_20\\_paper-OA.pdf](http://researchoutput.csu.edu.au/ws/portalfiles/portal/9743396/75293_Conference_20_paper-OA.pdf). Accessed 15 Dec. 2024.

Pediatrics. “How the 3D Printing Program at UPMC Helped Harper Get a New Heart.” UPMC HealthBeat, 15 July 2024, [share.upmc.com/2024/07/3d-printing-program/](http://share.upmc.com/2024/07/3d-printing-program/). Accessed 15 Dec. 2024.

Rodriguez Estrada, Fabiola Cristina, and Lloyd Spencer Davis. “Improving Visual Communication of Science through the Incorporation of Graphic Design Theories and Practices into Science Communication.” *Science Communication*, vol. 37, no. 1, Dec. 2014, pp. 140–48, <https://doi.org/10.1177/1075547014562914>.

Scott, Shannon D., et al. “Protocol for a Systematic Review of the Use of Narrative Storytelling and Visual-Arts-Based Approaches as Knowledge Translation Tools in Healthcare.” *Systematic Reviews*, vol. 2, no. 1, Mar. 2013, <https://doi.org/10.1186/2046-4053-2-19>.

“Stop Smoking.” CardioSmart, [www.cardiosmart.org/assets/infographic/stop-smoking](http://www.cardiosmart.org/assets/infographic/stop-smoking).

“Visual Storytelling: What It Is and How You Do It.” [Www.ied.edu](http://www.ied.edu), 4 Dec. 2023, [www.ied.edu/news/visual-storytelling-what-it-is-and-how-you-do-it](http://www.ied.edu/news/visual-storytelling-what-it-is-and-how-you-do-it).

“What Happens in a Heart Bypass?” Heart Foundation NZ, [www.heartfoundation.org.nz/your-heart/heart-treatments/coronary-artery-bypass-graft-surgery](http://www.heartfoundation.org.nz/your-heart/heart-treatments/coronary-artery-bypass-graft-surgery).