Accessibility Assessment of Government Health Websites

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Abstract

With Bangladesh progressing towards its bold vision of the smart Bangladesh 2041, the computerization of the services provided by the state is commonly viewed as an indicator of development. A strong move towards e-governance has seen the availability of thousands of government services online including the birth registration, hospital appointments among many others.

However, on the eve of 2026, there is an uncomfortable but pressing question that needs to be addressed, who is being left behind at the login screen? To almost 4.6 million Bangladeshi people with known disabilities including visual and hearing impairments as well as physical or cognitive needs, a government-provided health site is more than an online luxury; it is a life-line. It is the portal to vaccination appointments, medical tests outcomes, disability payment, telemedicine appointments, and emergency alerts. But recent studies point to the fact that to a large number of citizens, this lifeline is still caught in a tangle of digital access barriers that have practically isolated them out of much needed health information and services.

Nationwide audits of e-government services undertaken in 2025-2026 indicates that there is a huge disparity in terms of accessibility. As a benchmark, the researchers examined dozens of high-impact public service portals, including health-related ones, with the help of the internationally recognized Web Content Accessibility Guidelines (WCAG 2.1). The findings are sobering. More than 90 percent of the government web pages have at least one huge accessibility infringement. Analysts found violations of 14,308 individual violations in a comprehensive audit of 47 key e-services: each of these violations is a possible barrier to access. These infractions include lack of alternative text to images to structural coding mistakes which make the screen readers fail to read the content in an appropriate manner.

There is the Accessibility Maturity Model, which indicates that over half or 51.1 percent of the e-services assessed are of the Beginner-tier. This represents a classification that shows that any workflow has over 50 critical accessibility mistakes. Worryingly, these entry level sites contribute almost 97 percent of all the

established issues. These statistics are indicative that accessibility is not a peripheral concern, but a built-in vulnerability in the design of the digital infrastructure of the state. To users who are dependent on assistive technologies, such barriers make normal administration processes very tiring and in most cases impractical.

Visual impaired people are the worst affected. In their case, the keyboard navigation and screen readers cannot be spared. However, audits always reveal that keyboard functionality is not complete or even functional at a great number of government sites. Without appropriate tab indexing and logical focus sequence users are unable to navigate easily through the forms or through menus. No other text, also referred to as alt-text, of images is also problematic. Infographics are commonly used in health portals that convey such essential information as vaccination schedules, outbreak maps, or health warnings. In case such images are not accompanied by text, screen readers will simply announce the word image or read out a meaningless file name such as image 01.jpg.

The outcome of this is informational silence at the time when it is most required. This is supported by quantitative measures. About 23.6 per cent of the label of the forms on audited government Web sites lack or are not appropriately attached to input fields. In the absence of fields labeled appropriately, the users of a screen reader will not be aware of whether the box needs a name, date of birth, or national identification number. Also, 15 percent of pages do not pass simple color contrast ratio tests, which results in the text being inaccessible to users with a low vision or more color blind people. These design weakness might seem to be petty to the designers but serve as an insurmountable obstacle to a large portion of citizens.

Accessibility, however, is not only limited to technical compliance but it also involves usability. The principles of Human-Computer Interaction (HCI) consider the reduction of both mental and physical effort among all users. However, a large number of Bengali health sites have deep and nested menu systems and disorganized user interfaces. An example of a motor disability user is that he/she might have to press the Tab key 10, 20, 50 times, or even more, to get to a search bar or a button to log in. This high cost of interaction puts a physical strain that gives way to exhaustion and ultimate drop-out of the service. When a simple result of a test takes one through a digital maze to obtain it, the dream of e-governance breaks into a nightmare.

The other significant obstacle is the incompatibility with the assistive technologies (JAWS and NVDA screen readers). These are tools based on structured HTML code to read headings, landmarks and form elements. Assistive technologies are unable to properly make out content when developers build isolated coding silos without following standardized semantic structure. The resultant effect is discontinuous or non sequitur narration, which essentially kills a significant chunk of the webpage to victims of audio presentation. The issue is especially acute in health portals managed by the agencies like the Directorate General of Health Services or the Ministry of Health and Family Welfare where the complicated data dashboards and downloadable files are not always formatted in an accessible format.

This lack carries on even with a favorable legal system. The rights and protection of persons with disabilities act clearly outlines that there should be an equal access to the services of the state, including the digital one. On the same note, the National Digital Service and Web Designing Guideline establishes the accessibility standards in government websites. However, it is poorly applied. The concept of accessibility is often offered as a luxury in addition to the structure and not as a necessity. Instead of focusing on the inclusive architecture, developers may focus on visual representation or quick development and leave accessibility verification to the last points of a project- at least, they are performed.

Digital exclusion has far reaching consequences. In cases where an individual with a disability is not able to use and access an online health portal to register a disability card, book a vaccination, or read a diagnostic report, he or she is technically violating his or her constitutional right to health. Online obstacles result in slowness in treatment, lack of preventive treatment, and reliance on intermediaries. To people who want to be self-reliant and feel respected, unreachable websites strengthen the marginalization of the system.

In order to close this gap, a radical change towards user-centered design is needed. Accessibility should be incorporated into the designing stage of digital development and not attached afterwards. Every update of the primary health portals should be accompanied by mandatory accessibility audits. Such audits need to integrate automated testing capabilities with manual audits by individuals with disabilities where the real-life experience contributes to technical correction. The automated tools may be used to identify missing alt-text or color contrast failures, whereas the human testers are the only ones able to detect the confusing navigation flows or cognitive overload.

Capacity building at government ICT cells is also important. The training programs to be developed should focus on the rules of WCAG 2.2, semantic HTML, how it works on the keyboard, and cross-cultural accessibility in general. The concept of accessibility literacy needs to be mainstreamed as opposed to being a niche knowledge area. The global experience of best inclusive design shows that it frequently leads to better usability not only in the case of the disabled but also among all users. Easy navigation, readable text, and logical structures facilitate easy access to lyses through the low-bandwidth connection by elderly citizens, rural users with low digital literacy, and those using the services.

Positively, there are government platforms that show better rates of compliance. An example of an Advanced model with less than 20 critical errors has been cited to be the TIN Registration portal. The simplicity of navigation and systematic configuration of the codes demonstrate that the accessibility can be attained within the national digital ecosystem. The possibility of replicating such standards in high-priority health systems- especially the DSS-MIS platform- would go a long way in eliminating systemic exclusion.

Another priority is the reform of the format of content. Most government literature is still contained in non-readable PDF files that cannot be deciphered by the screen readers. Switching to Unicode-compliant, text-

based formats in HTML formats, makes it so that text may be read and resized without deformation. Templates of documents must be made mandatory in all communications done by the health sector to the citizens, including vaccination instructions as well as emergency alerts.

Finally, a Digital Bangladesh that fails to accommodate people with disabilities is a partial and unfair dream. The aspect of accessibility is not a technical box and it is the front door of the healthcare system. Whenever that door is closed, either through the missing alt-text or the lack of contrast or malfunctioning navigation, the prospect of digital transformation is as empty as an empty suitcase. Inclusive design has to be associated with the development of the country as Bangladesh is approaching 2041. Breach of the silent digital lock encrypted in government health websites can guarantee that the technological revolution in the country benefits the entire population of 170 million people. By so doing, it confirms that digital equity cannot exist without social justice- or that anyone should be left at the login screen.