



Hospital Website Accessibility: A Content Analysis of Websites



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Introduction

- Hospital websites are key access points for prenatal care.
- Blind pregnant women face major barriers when booking online.
- These barriers delay early prenatal visits and risk detection.
- Despite ADA and WCAG 2.1 AA standards, many sites remain inaccessible.
- Little research addresses how this impacts prenatal appointment booking.

We evaluated accessibility of hospital booking websites. The role of digital accessibility is important because it can be:

- Critical for timely access to prenatal care
- Central to reducing health disparities
- Required to ensure ADA compliance

Methods

Sample: 20 leading Arizona hospitals (Mar-May 2025)

Automated testing: WCAG 2.1 AA audit for form labels, ARIA attributes, control accessibility

Manual testing: Apple VoiceOver simulating a blind expectant mother attempting to:

1. Locate an OB provider
2. Select a date
3. Complete required forms
4. Submit appointment request

Comparison: Automated findings vs. manual task success/failure.

Results

Task	Applicable Websites	Success	Fail	Fail description
Task 1: Locate & focus first form field	5	6	0	
Task 2: Navigate & operate date picker	3	3	0	
Task 3: Submit empty form to trigger errors	5	4	3	No Error distinguisher. No error announcement.
Task 4: Complete mock booking	5	6	0	

Table 1. Task applicability and success rates. Six URLs (3 best-scoring and 3 worst-scoring URLs) underwent manual VoiceOver testing across four standardized tasks.

Critical violations:

- 6 of 12 testable sites had ≥ 1 critical WCAG violation (avg. 0.8/site)
- Most common: unlabeled form field, silent error messages, inaccessible date pickers.

Audit vs. usability match:

- One site passed automated audit but failed manual Task 3 due to error handling barriers.
- Some flagged WCAG violations did not block task success in practice.

Task completion:

- Only half of tested platforms allowed full appointment booking via screen reader.
- Automated audits alone over- or underestimated usability

Limitations

Limitation	Future Investigation
Sample limited to top 20 AZ hospitals	Expand to include community clinics/hospitals across multiple states
Required established patient login to evaluate booking tasks	Partner with hospitals to obtain test accounts
Single VoiceOver tester	Include multiple screen reader users across different screen readers (eg. Samsung TalkBack)

Key Takeaways

- **Low effort fixes** (labels, ARIA error attributes, accessible date pickers) could drastically improve access
- **Automated audits are not enough** - must be paired with task-based screen reader testing.
- **Improving accessibility enhances:**
 - **Independence** (patients can self-schedule without assistance)
 - **Privacy** (avoids disclosing health details via phone)
 - **Timely care** (critical for maternal-fetal health outcomes)

Features of an Accessible Website:

- ✓ Everything usable with a keyboard.
- ✓ Use text, not pictures of text.
- ✓ Flow: easy navigation using keyboard.
- ✓ Forms: Shows errors, suggestions, & labels.

Discussion

- Blind pregnant women face avoidable barriers to prenatal scheduling due to gaps in digital accessibility.
- Hospital IT teams should integrate accessibility reviews into booking platform development.
- Ensuring functional usability, not just audit compliance, is essential for equity.
- By addressing these barriers, health systems can reduce disparities and better uphold ADA standards.

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