










Title: Guidelines Shared between Vulnerable Communities

ID	Guideline: Description
  Elderly & Color-Blind Communities	
EC1	Colour contrast between popups and background: Ensure that colours used between foregrounds and backgrounds have high contrast to cater for potential vision challenges.
EC2	Design without colour to maintain luminance contrast: If colours are used to code or contrast two elements, revise the design without colour (i.e., without chromaticity) to compare them in grayscale (luminance or brightness).
EC3	Maintain WCAG contrast ratios: Ideally, follow the AAA standard of 4.5:1 for text, as well as other ratios for different scenarios, to cater to low contrast vision and colour-blind users. Make use of compliance checkers (e.g., Google Lighthouse) to validate that designs meet required contrast ratios.
  Elderly & Rural Communities	
ER1	Give time to act and read: Avoid deadlines or timed events so people with different reading speeds are not rushed or cut off.
ER2	Discoverability – clear purpose and state: Clear focal points, good visual hierarchy, and transparent navigation so users always know what something does and its current state.
ER3	Keep minimalist, simple interface: Key features are easily accessible on the main page; use larger fonts and familiar icons.
ER4	Use linear navigation (forwards and backwards): Prefer forward-and-backward navigation rather than hierarchical tree structures.
ER5	Make onboarding easy: Onboarding processes should be straightforward and avoid frustrating new users.
ER6	Make app purpose clear: Ensure the app communicates its purpose clearly to users who may arrive without prior context.
ER7	Break down information within and across screens: Avoid large paragraphs; use shorter sentences and break content into screens or pages for readability.
ER8	Provide text alternatives: Provide alternatives (e.g., alt-text, large text, or simplified language) for non-text content.
  Rural & Low-Digital-Literacy Communities	
RD1	Minimise download times: Use smaller image/video sizes, compression, and substitute images with text where possible to improve performance on low bandwidth.
RD2	Consider alternative information infrastructure: Support cases where multiple users share one device and ensure offline distribution of the app if app stores are not accessible.
RD3	Reduce phone resource usage: Minimise CPU, memory, and battery consumption to support low-end devices.
RD4	Reduce data use: Optimise apps to avoid large data consumption for low-capped plans and areas with unreliable connections.
RD5	Enable offline access: Ensure key features remain accessible offline when network coverage is poor or intermittent.
   Elderly, Rural & Low-Digital-Literacy Communities	
ERD1	Simplify navigation structure: Flatten menu hierarchies and prefer linear navigation to reduce cognitive load.
ERD2	Reduce alternative paths: Ensure navigation paths are simple and consistent; minimise branching or multiple routes that may confuse users.
ERD3	Avoid Hamburger Menu: Avoid hidden navigation; if unavoidable, pair the icon with descriptive text to guide users.

Continued on next page

ID	Guideline: Description (continued)
ERD4	Provide informative & clear feedback: Offer clear visual/audio feedback on ongoing processes, status, and errors without overwhelming users. Use progress bars, notifications, and guidance.
ERD5	Understandable error messages: Provide clear, actionable error messages so users know what went wrong and how to recover.