Equipment support strategy

This strategy document provides guidelines on how to manage digital devices, such as tablets, that are used in facilities for clinical care services, as well as how to plan the replacement schedule for these devices. This document takes into consideration the experiences in implementing digital devices in Tanzania and Zambia as part of the BID Initiative, as well as the details about the devices used, such as warranty expiration, the availability of spare parts, cost, and technical support.

Challenges to anticipate with devices

Below is a list of the challenges that were experienced with devices in Tanzania and Zambia while implementing the BID Initiative. When procuring devices, be sure to test each device before deployment to ensure that there are no issues. After several years of using a device, these challenges might emerge; it is important to document what those challenges are and the associated cost (e.g., time to fix the device or the cost to procure a replacement device):

* Equipment damaged or broken (e.g., screen cracked, which prevents data entry).
* Equipment malfunctioning (e.g., the operating system crashing repeatedly).
* Equipment not charging due to damaged USB cable or USB port.
* Equipment battery not working, which requires keeping the device plugged into a power supply.
* Equipment lost or stolen from the facility, including equipment taken home.
* Performance issues (e.g., the screen freezing, which requires the device to be restarted).
* SIM card not detected by the device, which prevents the use of data bundles.
* Lack of clarity on who is responsible for replacing the device (e.g., the facility or district).
* Outdated hardware, as well as wear and tear that causes the device to not function properly; these may mean that purchasing a new device would be more cost-effective than repairing an outdated device.

Table 1 below captures the different digital devices used in Tanzania and Zambia, along with the typical length of time that those devices can be used before needing replacement with a new device. Use these data for your planning estimates. Be sure to contact local vendors in your country to get accurate costs of devices.

**Table 1. Digital devices used in Tanzania and Zambia as part of the BID Initiative.**

|  |  |
| --- | --- |
| Device type | Life span of device |
| Tablet | 4 years |
| Laptop | 2 years |
| Printer | 5 years |

Planning considerations

Based on the challenges listed above, below are suggestions of how to respond to these device issues during implementation and maintenance:

* **Change management**: Before contacting the help desk, ensure that the data use and device champion at the facility serves as the on-site support and takes responsibility for resolving small issues (e.g., turning the device off and on, logging in and refreshing the application). This champion can also assess how health workers are coping with the new devices and systems, as well as document and report any areas where additional training may be needed
* **Frontline support/help desk**: When you begin to experience challenges with a device, contact the help desk immediately. The help desk team, usually at the district level, will help with initial troubleshooting. If problems continue, escalate the issue to information technology professionals. Ensure that the device challenges do not prevent data from being collected.
* **Equipment damaged or broken (screen, case)**: If a device is damaged or broken, phone the help desk to document information about that device (e.g., make, model, which facility it belongs to) and arrange replacement of the device with a new one. Document the cause or reason for the break or damage.
* **Equipment temporarily malfunctioning**: If the device malfunctions, report to the help desk. If the help desk or the information technology professional cannot resolve the issue, make arrangements to provide a temporary device and to repair the current device.
* **Tablet not synchronizing data**:Contact the help desk, and ask them to run you through how to switch on and off the mobile data.
* **Equipment not charging or equipment battery not working**: Call the help desk. The help desk should document whether the device is still under warranty and work with the local store/supplier to ascertain how to fix the problem. A temporary device should be provided by the proper authority while the facility’s device is in repair.
* **Equipment lost or stolen**: Call the help desk to report the item as lost or stolen. Follow standard procedures for reporting stolen items (e.g., police report). Consider using temporary solutions until a new device is procured.
* **Performance issues and SIM card not detected**: Call the help desk and provide clear details on the performance issues. If the help desk or information technology professional cannot resolve the issue, request a temporary replacement.

Conclusion

An equipment support strategy can provide clear guidance about how and to whom end users should report issues with devices. As the devices are used over the course of years, replacement of information and communication technology equipment is an inevitable task. Careful budgeting over time, based on the expected life cycles of equipment, can make the replacement of equipment an organized process with minimal disruption to staff and the work of the health facility, and can make the cost of replacement manageable.