

Equipment Survey Indicators

Indicator	Rationale/Objective	Measurement Notes	Unit of Measurement	Data Source	Location of data storage	Presentation (current visual representation, stratifies)	Data limitation & significance
Number of WOAHA Members responded to survey	To understand demographics (total number of Member Countries) of survey respondents	Unique count of Countries	Number	Equipment Survey Part1 & 2	WOAHA SQL Database	KPI card (total Number)	Sent to Delegates and Lab FP; If they do not work in a lab, survey end & request to send to lab directors, as they may have most accurate knowledge of survey content. 2/3 of Lab FP work in a lab.
Total number of each piece of equipment by country, region and globally	To understand total pieces of equipment covered in the survey	Sum of Total equipment InLab	Number	Equipment Survey Part2	WOAHA SQL Database	KPI card, Bar Chart disaggregated by WOAHA region, Income Group and Global Health Security Index	Data may be subject to self-report, recall, social desirability bias
Total estimated value of equipment covered in the survey	To understand total estimated value of equipment covered in the survey	Sum of Total equipment InLab multiplied by estimated value per equipment	Number	Equipment Survey Part3	WOAHA SQL Database	KPI card, Bar Chart disaggregated by WOAHA region, Income Group and Global Health Security Index	Data may be subject to self-report, recall, social desirability bias and variations in market value
Number of laboratories represented in survey	To understand demographics (total number of laboratories) of survey respondents	Total Count of RespondentsID if WorkingInLab is "Yes"	Number	Equipment Survey Part1 & 2	WOAHA SQL Database	KPI card (total Number)	Sent to Delegates and Lab FP; If they do not work in a lab, survey end & request to send to lab directors, as they may have most accurate knowledge of survey content. 2/3 of Lab FP work in a lab.

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% of respondents working in laboratory	To understand demographics (proportion working in laboratory) of survey respondents	Sum of "Yes" responses to WorkingInLab? divided by total respondents	Percentage	Equipment Survey Part1 & 2	WOAH SQL Database	KPI card (Percentage)	Data may be subject to self-report bias. Sent to Delegates and Lab FP; If they do not work in a lab, survey end & request to send to lab directors, as they may have most accurate knowledge of survey content. 2/3 of Lab FP work in a lab.
% of labs represented, by lab level	To understand demographics (proportion by lab level (central, provincial, district) of survey respondents	Percentage Frequency distribution of Network levels of labs	Percentage	Equipment Survey Part1 & 2	WOAH SQL Database	Proportion disaggregated by Network Level	Skewing of results may occur towards central level due to sending to Delegate and Lab FP, as they are predominantly located at central level.
Frequency of lab inventory	To understand inventory practices and to measure the level of accuracy of data provided	Frequency Distribution of Inventory Frequency	Number	Equipment Survey Part1	WOAH SQL Database	Bar or pie presentation by frequency options	Data may be subject to self-report, recall, social desirability bias. We do not know lab inventory policy (what constitutes equipment being removed from inventory system)
% of equipment not properly maintained	To understand the maintenance status of equipment, by equipment type and aggregated	Total Equipment InLab minus number of Equipment properly maintained divided by Total equipment InLab	Percentage	Equipment Survey Part2	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOA region, Income Group and Global Health Security Index	Data may be subject to self-report, recall, social desirability bias; Subject to accurate classification of equipment (lab inventory not accessed directly). # or % of lab equipment removed from lab inventory is unknown; therefore skewing towards operational equipment is possible. Very old and obsolete equipment stored on lab premises may or may not be reported.

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% of equipment not properly calibrated	To understand the calibration status of equipment, by equipment type and aggregated	Total Equipment InLab minus number of Equipment properly calibrated divided by Total equipment InLab	Percentage	Equipment Survey Part2	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOA region, Income Group and Global Health Security Index	Data may be subject to self-report or interest bias; Subject to accurate classification of equipment (lab inventory not accessed directly). # or % of lab equipment removed from lab inventory is unknown; therefore skewing towards operational equipment is possible. Very old and obsolete equipment stored on lab premises may or may not be reported.
Main reasons to procure maintenance	To understand the top reasons why laboratories procure maintaining services for equipment	Sum score of each reason to procure maintenance divided by the total score	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation ranked by score	Data may be subject to self-report, recall, social desirability bias
Main reasons to procure calibration	To understand the top reasons why laboratories procure calibration services for equipment	Sum score of each reason to procure calibration divided by the total score	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation ranked by score	Data may be subject to self-report, recall, social desirability bias
Main barriers to procuring equipment services	To understand the top barriers to procuring equipment services (repair, maintenance, and calibration) by AH laboratories	Sum score of each barrier to procure divided by the total score	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation ranked by score	Data may be subject to self-report, recall, social desirability bias

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Main factors that influence decision to repair equipment	To understand the leading motivating factors for equipment repair under budget restriction	Sum score of each factor influencing decision to repair divided by the total score	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation ranked by score	Data may be subject to self-report, recall, social desirability bias
% of equipment with in-house competencies to maintain and calibrate	To determine the in-house capacity building needs of the laboratories	Sum of "Yes" responses to InHouseCompetencies divided by total equipment	Percentage	Equipment Survey Part2	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOAHP region, Income Group and Global Health Security Index	Data may be subject to self-report, recall, social desirability bias
% of equipment with available local service providers to maintain and calibrate	To determine local service capacity building needs of the laboratories	Sum of "Yes" responses to LocalServiceProvider divided by total equipment	Percentage	Equipment Survey Part3	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOAHP region, Income Group and Global Health Security Index	Data may be subject to self-report, recall, social desirability bias
% of labs satisfied with local service providers	To understand the perception of laboratory staff of their satisfaction with local service providers	Total labs "satisfied" with Service provider divided by total labs	Number	Equipment Survey Part1	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOAHP region, Income Group	Data may be subject to self-report, recall, social desirability bias
% of labs satisfied with local service providers	To understand the perception of laboratory staff of their satisfaction with external service providers	Total labs "satisfied" with External provider divided by total labs	Number	Equipment Survey Part1	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOAHP region, Income Group	Data may be subject to self-report, recall, social desirability bias

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Main factors contributing to level of satisfaction with local service providers	To determine the main factors for satisfaction of laboratory staff; to understand the quality of service provided by local service providers, or differences between different types of service providers	Aggregate score of each factors contributing to level of satisfaction divided by the total score	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation ranked by score	Data may be subject to self-report, recall, social desirability bias
% of out of service equipment	To understand proportion of equipment which are not in use	Sum of Equipment NeedMajorRepair, NeedMinorRepair and Obsolete divided by total pieces of equipment	Percentage	Equipment Survey Part2	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOA region, Income Group & Global Health Security Index	Data may be subject to self-report, recall, social desirability bias; Subject to accurate classification of equipment (lab inventory not accessed directly). # or % of lab equipment removed from lab inventory is unknown; therefore skewing towards operational equipment is possible. Very old and obsolete equipment stored on lab premises may or may not be reported in this category.
Main causes of malfunctioning equipment	To understand the top reasons why laboratory equipment malfunctions and needs repair	Sum score of each cause of malfunction divided by the total score	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation ranked by score	Data may be subject to recall bias

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Main treatment of outdated equipment	To understand top ways how non-functioning equipment are disposed of; to understand AH lab equipment contribution to electronic waste ("e-waste")	Aggregate score of each option divided by the total score	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation ranked by score	Data may be subject to self-report, recall, social desirability bias
% of labs with equipment on loan	To determine proportion of laboratories with at least one equipment on loan	Sum of "Yes" responses to OnLoanEquipment divided by total labs	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation disaggregated by Region, Income Group	Data may be subject to self-report, recall, social desirability bias
Average of percentage of lab equipment on loan	To determine average proportion of equipment on loan, to inform benchmark of practice in vet labs	Average PercOnLoan	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation disaggregated by Region, Income Group	Data may be subject to self-report, recall, social desirability bias
% of labs with donated equipment	To understand dependency of AH laboratories on donated equipment	Sum of "Yes" responses to DonatedEquipment divided by total labs	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation disaggregated by WOA Region, Income Group	Data may be subject to self-report, recall, social desirability bias

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Average percentage of lab equipment that is donated	To understand dependency of AH #laboratories on donated equipment, to inform benchmark of practice in vet labs	Average PercDonation	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation disaggregated by WOAHA Region, Income Group	Data may be subject to self-report, recall, social desirability bias
% of main/repair/calibration in annual operational budget	To understand the frequency of budget allocated to maintenance, calibration and repair	Sum "Yes" responses to MaintenanceInAnnualOperationalBudget divided by total responses	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation ranked by score	Data may be subject to self-report, recall, social desirability bias
% of annual budget allocated to main/repair/calibration	To understand the proportion of budget allocated to equipment maintenance, repair and calibration of the total budget	PercAnnualBudget2018DedicatedToMaintenance divided by total responses	Percentage	Equipment Survey Part1	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOAHA region, Income Group	Data may be subject to self-report, recall, social desirability bias
% of labs for which the annual budget for equipment management is sufficient	To understand the perception of laboratory staff of the adequacy of allocated budget for maintenance and calibration	Sum "Yes" responses to IsAnnualBudgetSufficient divided by total responses	Percentage	Equipment Survey Part1	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOAHA region, Income Group	Data may be subject to self-report, recall, social desirability bias

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Main funders of lab	To understand the main resources partners of AH laboratories in general	Aggregate score of each funding source divided by the total score	Percentage	Equipment Survey Part1	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOA region, Income Group and Global Health Security Index	Data may be subject to self-report, recall, social desirability bias
Main funders of main/repair/calib %	To understand the main resources partners of AH laboratories for equipment maintenance, calibration and repair	Aggregate score of each funding source divided by the total score	Percentage	Equipment Survey Part1	WOAH SQL Database	Bar presentation ranked by score	Data may be subject to self-report, recall, social desirability bias
Average recommended allocation for main/repair/calib	To understand the perception of laboratory staff of how much budget should be allocated for maintenance, calibration and repair	Average PercBudgetShouldBeAllocatedForMaintenance	Number	Equipment Survey Part2	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOA region, Income Group and Global Health Security Index	Data may be subject to self-report, recall, social desirability bias
Main reasons to lack budget	To understand the perception of laboratory staff of the main reasons for lack of budget for equipment maintenance	Aggregate score of each reason for lack of budget divided by the total score	Percentage	Equipment Survey Part2	WOAH SQL Database	KPI card, Bar Chart disaggregated by WOA region, Income Group and Global Health Security Index	Data may be subject to self-report, recall, social desirability bias