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MONITORING ADOLESCENT SCHOOL HEALTH AND NUTRITION PROGRAMS AND INTERVENTIONS: ANSWERING THE WHY, WHAT, WHO, AND HOW
Delivering school health services alone is not sufficient to improve health or learning outcomes; rather, the quality, consistency, and relevance of services and delivery modalities is critical to achieve their intended outcomes.

School health and nutrition interventions are among the most ubiquitous public health investments worldwide. The coverage of public investments in education is greatest in high income countries, however, the scale of interventions worldwide demonstrates a common recognition of the importance of investing in childhood and adolescence.¹

As with any development program, it is important to monitor the implementation of school-based adolescent health and nutrition services.

There are varying approaches to deliver and monitor school health and nutrition services, and the range of relevant interventions to deliver can vary widely across contexts. As a result, there is no blueprint for delivering and monitoring high quality and equitable school health and nutrition programming; however, program monitoring should include a feedback loop to enable adaptive programming that promotes course correction to maximize the results of the interventions on the intended outcomes.

The multisectoral nature of school health and nutrition interventions requires careful planning and coordination to meaningfully capture monitoring data, as there are two (sometimes more, as is often the case for school feeding) sectors and stakeholders (such as parents and adolescents themselves) to engage.

This principle remains true even when monitoring interventions that have long engaged multiple sectors for school-based delivery (such as deworming), as there may be limited coordination between information systems to facilitate the transfer of information from one to the other. These challenges mean that countries may have limited ability to monitor implementation progress to inform future service delivery.²

"A community-based nutrition program in Malawi successfully adapted its programming by using real time monitoring data—adding service delivery sites in areas with low attendance, following-up with participants who had repeated absences, and improving targeting of services—to improve procurement efficiencies and achieve cost savings.²"

WHY MONITOR ADOLESCENT SCHOOL HEALTH AND NUTRITION PROGRAMS: AN INTRODUCTION

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This brief provides broad guidance aimed at supporting the development and implementation of monitoring mechanisms within school health and nutrition programs supported by World Bank lending.

This resource provides an overview of how monitoring indicators are applied across a logical framework and includes examples of indicators for select school-based health and nutrition interventions when monitoring at the national, subnational, or individual level. Specific examples of how countries monitor school health and nutrition programs across five implementation models (described in the Adolescent School Health and Nutrition: Reach and Relevance Brief, developed as part of this series are also included, with specificity on monitoring responsibility and information flows between education and health sectors. Adaptation of school health and nutrition programs in times of school closures, such as those experienced globally due to the emergence of COVID-19, are addressed elsewhere."

Although program monitoring is often complemented by program evaluation, this brief focuses on monitoring, as opposed to evaluation.

This is because monitoring relies on country systems, which not only fit more cohesively into the mandate of the World Bank-hosted Global Financing Facility (GFF), but are also the source of data that program implementers, including World Bank teams, are most dependent on when tracking progress of their programs.

This is the third brief in a series focused on adolescent school health and nutrition developed by the Global Financing Facility for Every Woman and Every Child (GFF).

The other briefs in this series introduce:

1. A set of health and nutrition interventions that are relevant for adolescent populations and can be delivered through schools in low-resource settings
2. Considerations for service delivery when schools are closed
3. A decision tree to guide World Bank operations that include school-based adolescent programming

*A logical framework illustrates a specific pathway that the intervention aims to influence. The narrowed scope that is focused on within a logical framework makes it easier to identify areas for program monitoring. In comparison, a theory of change shows a broad scenario with various pathways leading to the intended change, including pathways that extend beyond the boundaries of an intervention. A theory of change typically includes the environmental, political, and cultural contexts that influence the outcome but are beyond the scope of a program.
Program monitoring is deeply engrained in policy and programmatic preparation and implementation, with the development of a results framework during project design and the subsequent monitoring of project implementation that is tracked and reported throughout the life of the project’s implementation.

Designing the results framework is a dynamic and iterative process that demonstrates:

1. A shared understanding the problem the project is trying to solve
2. How the project inputs will lead to desired outcomes
3. Knowledge of the type of evidence that is needed to assess progress towards program results
4. An understanding of the existing data sources and instruments available in the country

Thus, the selection of specific indicators that make up the results framework are largely dependent on and closely aligned with the program’s logical framework. Collecting sex- and age-disaggregated data has values beyond monitoring the success of school-based programs; doing so helps complement the limited available data for younger adolescents in particular, as population-based surveys exclude respondents below 15 years.⁷

Figure 1 provides an illustrative example of a high-level logical framework for a broad set of actions that would be considered in school-based health and nutrition programming for adolescents. In a country programmatic scenario, this logical model would require adjustments based on the specificity of interventions included in the basic package, activities needed to deliver them, and intended results of those.

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⁷At the World Bank, this is done through biannual implementation status reports (ISR) and a final implementation completion report (ICR).

⁸Note the World Bank results framework differs from a traditional logical framework in that the results framework is not a visual tool, but rather a specification of the indicators to be collected (numerator/denominator), frequency of collection, data source, baseline, and targets.
**ILLUSTRATIVE LOGICAL FRAMEWORK FOR ADOLESCENT SCHOOL HEALTH AND NUTRITION (ASHN) INTERVENTIONS**

**INPUTS**
- Policies, provision of financial, material, and human resources, etc.

**Process**
- Actions taken or work performed
  - Procurement and distribution (to subnational level) of commodities and materials
    - Number of vaccine/supplements/meals procured, purchased, or prepared
    - Counseling materials printed
    - Coordination between ministries, local councils, and schools

**Outputs**
- Products and goods that resulted from an intervention
  - Procurement and distribution (to subnational level) of commodities/materials
    - Number of vaccine/supplements/meals/counseling materials delivered

**Outcomes**
- Short- and medium-term changes that result from the intervention outputs
  - ASHN package delivered (coverage of the intervention)
    - Number of schools implementing the ASHN package
    - Number of [male/female] students who received interventions from the ASHN package

**Impact**
- The long-term results of the intervention
  - Improved educational outcomes
    - Improved attendance
    - Improved academic performance
  - Improved health and nutrition knowledge and behaviors among adolescents
    - Improved knowledge on health and nutrition topics covered by ASHN package
    - Improved access to health and nutrition services by adolescents
  - Improved health, nutrition, and learning outcomes among adolescents
    - Years of education completed
    - Delayed sexual debut
    - Increase in contraceptive use
    - Improved energy and nutrient intake
    - Improved nutritional status

**Long-term impact:**
- greater employment and earning opportunities; economic growth

**Short-term impact:**
- improved health, nutrition, and education outcomes among adolescent populations
  - Reduction in adolescent pregnancies
  - Reduction in malnutrition among adolescents, particularly girls
  - Reduction in childhood stunting

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**National Level**
- Policy, legislation, and/or regulations promoting ASHN for adolescents
  - Guidance on operationalization of ASHN policy/program at subnational level
  - Development of training curricula for teachers and/or ASHN providers, including comprehensive sexuality education
  - Development of monitoring and supervision tools and mechanisms

**Subnational/School Level**
- Financing allocated to ASHN (national and subnational level)
- Operational modalities agreed and established
  - MoU with relevant local entities to enable referral system
  - Identify and recruit human resources to implement ASHN services (teachers/health workers/school nurses)

**Individual Level**
- Implementation of training plan, often cascade model
  - Number of district-level trainings on school health and nutrition for adolescents
  - Number of trainings for front-line staff (teachers/health workers/school nurses)

- Establishment of monitoring mechanisms for SHN interventions for adolescents
  - Monitoring tools available in schools
  - Training on use of monitoring tools

- ASHN package delivered (coverage of the intervention)
  - Number of schools implementing the ASHN package
  - Number of [male/female] students who received interventions from the ASHN package

- Improved health and nutrition knowledge and behaviors among adolescents
  - Improved knowledge on health and nutrition topics covered by ASHN package
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- Improved health, nutrition, and learning outcomes among adolescents
  - Years of education completed
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  - Increase in contraceptive use
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  - Improved nutritional status
ITAL IS IMPORTANT TO IDENTIFY ACTORS WHO WILL SUPPORT PROGRAMMATIC MONITORING AND REACH AGREEMENT ON THE PROCESS FOR MONITORING AND REPORTING AGAINST EACH INDICATOR.

Given the wide variation in adolescent school health and nutrition programs and delivery models that render it difficult to be prescriptive about specific indicators to use, project teams must weigh several considerations when defining which indicators to measure. These include:

CONSIDERATIONS RELATED TO THE SELECTION OF INDICATORS

1. DETERMINE INDICATORS BASED ON THE INTENDED FINAL IMPACT

The selection of indicators will be heavily dependent on the intended final impact of the program, highlighting once again the utility of grounding indicator selection in the program’s logical framework. For example, if the long-term desired impact of an investment is to reduce adolescent pregnancy, the delivery of comprehensive sexuality education to adolescents in secondary schools would be an outcome indicator on the pathway to get you to that impact. However, if increasing the access to and use of modern contraceptives among adolescent populations is the long-term desired impact, then the outcome indicator could be related to the coverage of a family planning program that targets adolescents.

2. THE SELECTED INDICATORS WILL SUBSEQUENTLY SERVE AS THE BASIS FOR THE PROGRAMMATIC MONITORING PLAN. DETERMINE THE MOST APPROPRIATE INDICATORS TO DEMONSTRATE PROGRESS TOWARDS THE RESULTS CHAIN AND CLARIFY HOW INDICATORS WILL BE MEASURED AND ASSESSED.

Where possible, go beyond indicators measuring inputs to also include a focus on quality, functionality, and adequacy of interventions (for guidance, cross reference the School Health and Nutrition: Reach and Relevance Brief and the Defining the Package of Services arm of the School Health and Nutrition Decision Tree, both developed as part of this series).4,5

3. REFLECT ON WHO IS IMPLEMENTING AND MONITORING THE PROGRAM

The actors initiating and implementing this work influences the definition of indicators within each category of the logical framework. For example, in a World Bank project, an input-level indicator can be a national policy on school health, while for a government, an input-level indicator would be the number of supplies or commodities procured for program functioning. In either scenario, it is important to identify actors who will support programmatic monitoring and reach agreement on the process for monitoring and reporting against each indicator. In alignment with adaptive planning, the frequency and methodology for programmatic monitoring can be reviewed and updated on a regular basis, such as annually.

Equally important to selecting the indicator is determining the size of the target population (number of people targeted within a defined geographic boundary) and ensuring the ability to analyze data along key equity dimensions (such as gender and age groups), as success is dependent on the quality and the reach of the interventions. As with any school-based health or nutrition program that includes delivery of commodities to specific population groups, like school-based HPV vaccination programs, determining the total number of targeted adolescents, is critical. When targeting is meant to be age-based, however, program planners may consider calculating their targets using grade-based eligibility instead, as determining age is difficult in contexts where birth records are not routinely available, school registers are inaccurate, and/or census data is outdated.7
CONSIDERATIONS RELATED TO INFORMATION SYSTEMS FOR PROGRAM MONITORING, AND FREQUENCY OF DATA COLLECTION

1 IDENTIFY AVAILABLE DATA SOURCES AND WHETHER THESE REQUIRE FURTHER STRENGTHENING

Incorporate financing and attention to data strengthening activities into project components, including for establishing or strengthening health and education management information systems. Recognizing that national health management information systems may be too weak to be the sole source of data for programmatic monitoring, implementors can also consider complementary forms of data collection, such as through nimble SMS or phone-based surveys and through innovative geo-enabled data collection mechanisms (see Box 2). Where needed, project funding can also include resources for support with data analysis, visualization, and use. To facilitate strengthened cross-sector collaboration and evidence-based decision making, data collected should routinely be shared between relevant sectors and institutions.

2 ENSURE AN APPROPRIATE BALANCE BETWEEN MINIMUM AND IDEAL PROGRAM MONITORING AND INDICATOR SELECTION STANDARDS TO IMPROVE FEASIBILITY AND MINIMIZE MONITORING COSTS.

Minimum standards are those which are necessary to achieve the desired outcome or to achieve country requirements, while ideal standards are more ambitious. In many cases, project teams might determine which indicators to prioritize based on what data collection systems are already in place or based on what can organically complement other efforts in the same space, rather than establishing siloed but more burdensome and costly approaches to collect an ideal indicator.

EXPLORE OPPORTUNITIES FOR INTEGRATING MONITORING INTO OTHER SCHOOL-BASED SOURCES OF INFORMATION.

Standardized, routine and repeated learning assessments can generate independent and longer-term program feedback, which can be used to assess intervention feasibility and effectiveness. For example, in countries with schools providing comprehensive sexuality education, integrating questions into annual, national, and standard assessments administered to adolescents to test their knowledge of key topics covered can be a useful source of data to monitor the program’s impact.

CONSIDERATIONS RELATED TO REFERRAL MECHANISMS

1 IDENTIFY HOW REFERRALS FROM SCHOOLS TO FACILITIES WILL BE TRACKED AND MONITORED.

Schools should have an established and well disseminated referral mechanism between the school and health facilities and other appropriate institutions/agencies. Staff (be it health or education) who teach health and/or nutrition education should be equipped to refer students who present with symptoms and monitor whether the student received care, including establishing necessary linkages to support a child who faces a situation of abuse (ex. with local police, mental health counseling, etc.). It is important to ensure that the facilities where adolescents are referred meet the criteria for adolescent-friendly health services and are accessible (including hours of operation that do not conflict with school hours). Linkages with the health system can also entail redistributing excess materials from school-based health and nutrition interventions to health facilities. School-based deworming campaigns, for example, often have agreements to redistribute unused tablets to health facilities and the number of redistributed tablets should be recorded as part of the deworming campaign.
Indicators drive resource allocation as well as all subsequent data collection, analysis, and reporting. As with the design and implementation of any program or project, the selection, monitoring, and validation of appropriate indicators specified within the results framework is critical to incentivizing not only the inclusion, but also the implementation of school-based adolescent health and nutrition services.

Table 1 provides an illustrative example of a limited number of proposed indicators (with a more complete list provided in Annex 1) under the categories of processes traditionally outlined in a logical framework and from the perspective of a program planner from a development agency, as opposed to a government entity (see consideration #3 in the sub-section on Selection of Indicators).

Box 1 and Table 1 detail the linkages between indicators along the results chain and common World Bank financing tools. The indicators included within Table 1 and within Annex 1 are drawn from current and past World Bank projects as well as from the Focusing Resources on Effective School Health (FRESH) Monitoring and Evaluation Thematic Indicators. Information on indicator definitions, data sources, and data collection responsibilities for indicators drawn from World Bank projects are summarized in Annex 2. Note that impact indicators are not captured within the table. This is because typically projects do not measure impact that is anticipated to occur beyond the life of its investment. Examples of impact indicators include reduced preventable deaths from cervical cancer and greater employment and earning opportunities. Additional considerations specific for World Bank projects are described in Box 1.
Input indicators for school health and nutrition are akin to triggers in a programmatic Development Policy Financing (DPF) series. These triggers are intended to incentivize policies, reforms, and/or stewardship activities that directly or indirectly relate to school health and nutrition. As is customary for DPF operations, countries need to achieve the trigger indicators in order for a subsequent tranche of DPF to be approved and disbursed. Input indicators can also feature in Investment Project Financing (IPF) operations with Performance-Based Conditions (PBCs) and Program-for-Results (PforR) operations as policy reform indicators. However, these latter two types of lending instruments (IPF and PforR) more traditionally use service delivery indicators (process and output indicators) and outcome indicators that specify how much progress towards an outcome is anticipated to be achieved at different stages of the project. It is unlikely that a World Bank investment would have several indicators specific to school health and nutrition, and the section of indicators should best correspond to the results outcome desired.
## TABLE 1

### SAMPLE OF ADOLESCENT SCHOOL HEALTH AND NUTRITION (ASHN) INDICATORS ALONG THE RESULTS CHAIN

<table>
<thead>
<tr>
<th>ASHN THEMATIC AREAS</th>
<th>INTERVENTION</th>
<th>INPUT INDICATORS (IE POLICY ACTIONS AND TRIGGERS SUCH AS THOSE INCLUDED IN DPF INVESTMENTS)</th>
<th>PROCESS AND OUTPUT INDICATORS (IE IPF/PfoR INVESTMENTS) TIMEFRAME: 5-7 YEARS</th>
<th>OUTCOME INDICATORS (IE IPF/PfoR INVESTMENTS) TIMEFRAME: 5-7 YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Health and Nutrition (General)</td>
<td>Policy</td>
<td>School-based adolescent health, nutrition and population program is developed and implemented (P160846, DLI 15)*</td>
<td>Number of recent teacher graduates who received pre-service training on school health and nutrition service delivery</td>
<td>Number of adolescents who received the complete package of school-based health and nutrition services within the prior academic year</td>
</tr>
<tr>
<td>Physical Health &amp; Nutrition</td>
<td>School-Based Violence Prevention</td>
<td>Legislation that protects against and responds to institutional violence in schools</td>
<td>Percentage of public and community senior secondary schools offering female guidance counselor services (P164932)*</td>
<td>Percentage of public and community senior secondary schools that have implemented an action plan to increase community engagement and participation in reducing violence in schools, especially towards girls (P164932)*</td>
</tr>
<tr>
<td>Vision Screening</td>
<td>National poverty reduction strategy, human capital strategy, or other relevant strategy includes disability prevention</td>
<td>Number of secondary schools that screen students for vision problems</td>
<td>Percentage of students identified to have correctable vision loss that received readymade or low-cost spectacles</td>
<td></td>
</tr>
<tr>
<td>HPV Vaccination</td>
<td>National vaccination program includes HPV vaccination for girls age 9-14 years, with a recommendation for school-based delivery</td>
<td>Number of participating schools that deliver two doses of the HPV vaccine to 80% of targeted female students</td>
<td>Percent increase of adolescent girls vaccinated with 2 doses of HPV vaccine by age 15 years</td>
<td></td>
</tr>
<tr>
<td>Intermittent Iron and Folic Acid (IFA) Supplementation</td>
<td>National nutrition guidelines include a specific recommendation for school-based delivery of weekly IFA supplementation</td>
<td>Proportion of schools delivering weekly IFA supplementation to adolescent girls</td>
<td>Percentage of adolescent girls aged 11-19 who received IFA supplements in the project area (P164771)*</td>
<td></td>
</tr>
<tr>
<td>School Feeding</td>
<td>School feeding is included within the national poverty reduction strategy, human capital strategy, or equivalent strategy</td>
<td>Number of students attending schools which implement the health and nutrition program are fed one hot meal and one snack daily, 190 days per year (P124134)*</td>
<td>Percent increase in number of school feeding days as percentage of actual school days in prior term</td>
<td></td>
</tr>
<tr>
<td>Deworming</td>
<td>Inclusion of helmint and schistosome control commodities in the basic package of school health interventions</td>
<td>Number of children receiving anthelmintic treatment (school-age children) (P131945)*</td>
<td>Percent reduction in anemia and severe anemia among adolescents aged 10-19 years</td>
<td></td>
</tr>
<tr>
<td>Nutrition Education and Promotion of Healthy Lifestyles</td>
<td>National policies on the nutritional standards of food and beverages sold in school canteens are published</td>
<td>Number of schools with a safe and clean space that can be used for recess, sports, physical education, or other physical activity</td>
<td>Percent increase in number of adolescents participating in at least 60 minutes of physical activity per day during the past seven days compared to baseline</td>
<td></td>
</tr>
<tr>
<td>Education Interventions that Promote Health</td>
<td>Comprehensive Sexuality Education</td>
<td>Ministerial Order allowing adolescent girls to remain enrolled in school in the event of pregnancy or marriage (P169830, Prior Action 3)</td>
<td>Percentage of secondary schools offering sexual and reproductive health services (information and contraceptive methods) in the last X months (P163541)*</td>
<td>Number of additional institutions that have teachers trained to teach comprehensive sexuality education two years after baseline</td>
</tr>
<tr>
<td>Menstrual Health and Hygiene</td>
<td>National policies guarantee the provision of facilities and materials for adolescent girls and female teachers to manage menstrual health and hygiene safely and with dignity at school</td>
<td>Number of secondary schools with separate latrines for girls to use</td>
<td>Number of districts (or other appropriate administrative unit) where 90 percent of public schools have access to safe water and sanitary facilities</td>
<td></td>
</tr>
</tbody>
</table>

*An asterisk represents an indicator that has been used in a World Bank Project and the project number is included for easy reference.
Routine program monitoring is both a management tool and a powerful feedback mechanism. Monitoring data for school health and nutrition programs should be routinely analyzed, communicated, disseminated and discussed with relevant stakeholders who can use the information for many different purposes, including learning and advocacy, for example.

There are known gaps in the monitoring of school health and nutrition programs. At the global level, there is no repository of the health and nutrition status of children and adolescents nor of the breadth and coverage of school health services provided in countries. Some countries have their national surveys; the School Health Policies and Practice Study, developed by the US Center for Disease Control and Prevention, is one example of a survey that assess the characteristics of school health programs at the state, district, and classroom levels. Since coverage from school-based service delivery programs may not be captured within administrative surveys, adolescent school health and nutrition monitoring systems may need to rely on multiple systems to collate and monitor the relevant program indicators.

This section includes considerations for monitoring school health and nutrition programs. In addition, existing published resources provide additional information on establishing a government-led monitoring and evaluation system as well as on establishing a vertical school health and nutrition monitoring and evaluation program (i.e. under donor-funded activities, in which data collection and reporting is not integrated within a national information system). Although a government-led system is more time intensive to establish, it is more sustainable for monitoring program operations when taken to scale.
CONSIDERATIONS RELATED TO MONITORING SCHOOL HEALTH AND NUTRITION ACTIONS

Clear protocols for all aspects of the monitoring process

1. CLARITY IN ROLES AND RESPONSIBILITIES

National programs and monitoring generally operate under one ministry, while implementation may be led by technical bodies at the national or sub-national level, as is seen with school feeding.14,15 Data collection points (data sources) or reporting responsibility (who collects) will thus vary based on the delivery model that is used, so clarity in these protocols and how the data will eventually reach the Ministry of Health and Education, is essential. Protocols should clearly specify data sources, collection methods (including who collects and what monitoring tool is used) and frequency, how routine monitoring data will be analyzed and used as it moves from one administrative level to another, and how it will be communicated, disseminated, and used for program and implementation-related decision-making.

2. FEEDBACK MECHANISMS

Recognizing that school health and nutrition programs engage actors across sectors, it is important to build in a feedback loop that connects education and health information systems, especially in cases where the monitoring responsibility is with the education system.16 Data collection should be standardized across the program regardless of service delivery point to facilitate data aggregation and analysis.16 Front line workers delivering school health and nutrition interventions should be using and trained on the same monitoring tools and be completing them according to the agreed protocol.

3. QUALITY ASSURANCE

Quality assurance mechanisms for monitoring data are essential for ensuring the quality of the data during collection, transfer, compilation, and analysis.9 This is especially true when routine monitoring data is collected by different partners with different capacities and working at different levels. It is important to note that in the case of PforRs specifically, data verification by an external agency is required to review monitoring indicators that are reported by the government’s implementation of the program. This is distinct from the monitoring process and needs to be accounted and planned for, particularly for projects with Disbursement-Linked Indicators (DLIs) or Performance-Based Conditions.

Standardization and alignment

1. STANDARDIZATION OF DATA COLLECTION METHODOLOGY

Data collection should be standardized across the program regardless of service delivery point to facilitate data aggregation and analysis.16 Front line workers delivering school health and nutrition interventions should be using and trained on the same monitoring tools and be completing them according to the agreed protocol.

2. ALIGNMENT OF INDICATORS

Monitoring by development partners is often program specific and not necessarily aligned to government programs or data sources, which places a significant data reporting burden on implementing entities and misses an important opportunity to build monitoring capacity at the central and local levels. Therefore, where possible, program indicators should be aligned to those of national programs and/or programs implemented by other development partners, as they will already be collected through existing monitoring systems, such as through administrative data systems and periodic surveys for passive data collection. Not only should indicators be aligned, but ideally so would data sources and frequency of data collection. For example, national Ministries of Health use logistics and health management information systems (LMIS and HMIS, respectively), which provide health information from lower administrative levels on a continuous basis (typically monthly). In cases where alignment is not possible and it is deemed necessary to develop a standalone monitoring tool, program implementors are encouraged to consider collecting age- and sex-disaggregated data where possible to help fill known data gaps for the adolescent health range.
Tools for Data Collection

1. PASSIVE DATA COLLECTION
Data can be collected from one-off and periodic surveys, project reports, workplans, registries and daily record keeping forms and survey instruments (questionnaires) and routine national information systems.

2. ACTIVE DATA COLLECTION
Paper tools often co-exist with digital tools where access to digital technology may not be feasible, where paper tools are used for data collection and the information is subsequently collated and reported through digital tools. Digital technology (handheld PDAs specifically) are useful and efficient tools for collecting and reporting monitoring and/or survey data (see Box 2).^6

GEO-ENABLING INITIATIVE FOR MONITORING AND SUPERVISION

Monitoring of school health programs in fragile contexts can present a unique challenge to collecting transparent, timely, and accurate data. Emerging open-source information and communications tools (ICT), such as Geo-Enabling Initiative for Monitoring and Supervision (GEMS), can rapidly collect project data with real-time tracking using smartphones (online or offline) and upload data into a centralized M&E system when connected to WiFi. This platform ensures data integrity along the project cycle and the inclusion of photos and spatial coordinates.

An added benefit for project teams at the World Bank is the ability to access project data from the Project Implementation Unit (PIU) at any point. A multisector nutrition project in Uganda (P149286) used this technology to monitor school-based deworming activities, demonstrating its utility for monitoring school health and nutrition services. The simplicity of these types of open-source tools can also be used to build the capacity of staff (whether at the school or the PIU level) to implement remote supportive supervision, portfolio mapping, and data verification.^^
Data collection for school health and nutrition services are often led by either the education or health sector. Monitoring responsibility typically aligns with the delivery model countries use to provide general health services for school-attending children and adolescents. Alternatively, collection methods may reflect the sector-specific technical considerations for delivery of standalone interventions (ex. HPV vaccine delivery would be delivered and monitored by the health sector).

As outlined in the first brief of this series, Adolescent School Health and Nutrition: Reach and Relevance brief, five delivery modalities have been identified for the provision of health and nutrition services for adolescent populations, with monitoring responsibilities falling largely to the cadre who is providing the intervention as presented in Figure 2. For example, in a delivery model where health services are provided by on site personnel, the monitoring responsibility falls to those cadres (educators/teachers), who then must produce monthly reports of service delivery to frontline health workers who push the information up the system. In the subsequent models presented, which involve health service delivery by visiting or permanent health staff, this monitoring and reporting responsibility is taken on by the health sector, sometimes in collaboration with the education sector.

Figure 3, as a complement to Figure 2, offers more granularity on the various stages in which actors collect and report data within standalone school health and nutrition programs in Malawi and Mozambique. As depicted in Figure 3, actors from both the health and education sectors in Malawi are engaged in the delivery of intermittent iron folic acid supplementation, however, the education sector is tasked with consolidating school-wide data while the health sector is tasked with reporting and aggregating district-wide data to the relevant health, education, and nutrition actors. Conversely, the adolescent sexual and reproductive health program in Mozambique, is delivered through a school setting by health personnel and the data remains within the purview of the health sector at all levels, and is captured within health facility records as well as the national HMIS system. This model is unique in that there are few examples of school health and nutrition intervention coverage included within national information systems, whether captured by the education or by the health sectors.
Delivering and Monitoring Adolescent School Health and Nutrition Programs and Interventions: Answering the Why, What, Who, and How

**Figure 2**

<table>
<thead>
<tr>
<th>Delivery Model</th>
<th>Monitoring Responsibility</th>
<th>Country Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Services provided by on-site personnel</td>
<td>Malawi: Teachers are trained to provide intermittent weekly iron folate supplementation to adolescent girls, and are responsible for tracking which of their students receive supplements over time. A monthly report is generated and provided to the Health Surveillance Assistant, who reports to the health center, where the data is entered into the health information system.</td>
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</tr>
<tr>
<td>Health Services provided by visiting personnel</td>
<td>Mozambique: Health sector mobile brigades visit schools in health facility catchment area four times per year to provide sexual and reproductive health services (including contraceptives) to adolescents. Delivery of services and monitoring responsibilities fall to staff of the mobile brigades (nurses) in collaboration with school health focal points (teachers).</td>
<td></td>
</tr>
<tr>
<td>School-based health center</td>
<td>State of Maryland, United States: School nurses implement routine and emergency diabetes care and education during the school day and school-sponsored activities. School nurses provide aggregate data to the school administrator. The School Health Coordinator monitors the implementation of diabetes care services, with oversight support from the local school systems and local health departments.</td>
<td></td>
</tr>
<tr>
<td>Facility-based school health services</td>
<td>Netherlands: Public health service physicians (&quot;school doctors&quot;) provide preventive care in school to all students at ages 5, 10, 13, and 15 and offers no-cost vaccinations through municipal health centers. The public health system provides all services, thereby streamlining data capture. Municipal public health services support schools to implement health policy and to teach health education. Schools evaluate their own health activities every year.</td>
<td></td>
</tr>
<tr>
<td>Combination of service provision models</td>
<td>Tajikistan: Health and education authorities have joint ownership of school health services, with the local health authorities overseeing its operations. Schools have on-site nurses for routine services and are visited by family physicians or assigned pediatricians for no-cost preventive check-ups. School nurses maintain and submit reports to the municipal or district policlinics.</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Information for Malawi and Mozambique were contributed based on personal communication with World Bank staff. Sources for the summary on Maryland, United States: (14); Sources for the Netherlands: (15–19); Sources for Tajikistan: (16,19–21).

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**Figure 3**

**Intervention**

Iron folate supplementation to school-going adolescent girls aged 10-19 years

**Data Flow**

- School Health and Nutrition Teacher
- Health Facility Receives Consolidated Community and School Reports
- Health Surveillance Assistant (For Community Distribution)
- District Nutrition Coordinating Committee
- Department of Nutrition and HIV/AIDS, MoH

Data is collected by both the health and education sectors, however, there is a need to link sectors to collaboratively review data trends over time and adapt the programming as needed.

**Monitoring Challenges/Gaps**

<table>
<thead>
<tr>
<th>Country Example</th>
<th>Health Services Provided by Visiting Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malawi</td>
<td></td>
</tr>
<tr>
<td>Mozambique</td>
<td>Family planning education and services to school-going adolescents</td>
</tr>
</tbody>
</table>

Data captured within the health facility family planning registrar does not disaggregate where services were delivered (health facility, school premises), thereby limiting the ability to adaptively tailor service delivery to reach vulnerable adolescents. In addition, the education sector does not have a mechanism within the EMIS to capture coverage of this intervention, thus limiting the sectors ability to assess whether school-based sexual and reproductive health services helps support retention among adolescent girls.
### TABLE 2 MONITORING CONSIDERATIONS AND METHODS FOR SELECTING ASHN INTERVENTIONS

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>DATA COLLECTION AND REPORTING MECHANISMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deworming</td>
<td>Following Deworming Days, schools send populated monitoring forms to their division/ward-level Area Education Officer, who then compiles division/ward-level data. This information is then shared with the Sub-County Directors of Education who conduct sub-county-level summaries and submit the data to the Sub-County Medical Officers of Health and to the National Office for Data Analysis and Financial Management. In an effort to improve data access and strategic decision making, the Ministry of Health integrated school-based deworming data into the HMIS.26</td>
</tr>
<tr>
<td>Iron and Folic Acid (IFA) Supplementation</td>
<td>In Bhutan, the Ministry of Education requests that schools submit regular reports on the delivery of IFA supplementation to adolescent girls and boys in schools. The class teacher provides a report to the principal, who in turn collates the school’s data and shares it with the District Health Officer, the District Education Officer, the School Health Program at the MOH, the Food and Nutrition Program at the MOH, as well as with the Comprehensive School Health Division at the MOE. It is worth noting that without a MOU between the MOH and the MOE, schools are not answerable to the MOH, making it difficult for the MOH to secure any missing reports or complete a feedback loop to schools.26</td>
</tr>
<tr>
<td>School Feeding</td>
<td>Ecuador provides breakfast daily to pre-primary and primary school children as well as snacks to children in urban-marginal public schools. Ecuador has an information management system that provides real-time information to the national program on the number of meals delivered and school children reached. School Food Program officials use this system to monitor program implementation and to intervene when programs are underperforming. In addition, the national budget includes a line item specifically for monitoring school feeding implementation.27</td>
</tr>
<tr>
<td>Liberia</td>
<td>Schools share vision screening and deworming reporting forms with District Education Officers who in turn compile and report district-level data to the Director of School Health at the Ministry of Education.28</td>
</tr>
</tbody>
</table>

Note: Information for vision screening was collected through personal communication with Sightsavers International.

Table 2 provides a granular summary on the process select countries take when collecting and reporting adolescent school health and nutrition data, and includes information when data is moving from schools to the lead ministry as well as when ministries report their national data to global data repositories. The summaries captured within both Figure 2 and Table 2 are specific to the data collection and reporting process for these programs, and it is important to note that the roles for delivering and collecting data can vary within and across countries depending on the program design.

<table>
<thead>
<tr>
<th>Country</th>
<th>Data Collection and Reporting Mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School Health Policy</strong></td>
<td>The Lao PDR National School Health Policy (NSHP) spans five components: personal health and life skills, healthy school environment, health and nutrition services, control and prevention of common diseases, and school and community partnership. The Ministry of Education and Sports (MOES) requires province- and district educational offices to monitor and report select issues related to the implementation of the NSHP, which mainly relate to health education. A qualitative assessment with implementing stakeholders identified that capturing this data offered feedback to both the schools and the MOES on its health education curriculum, however, the narrow subset of indicators was also seen as a deterrent from fully implementing the NSHP program in schools.27</td>
</tr>
<tr>
<td><strong>Vision Screening</strong></td>
<td>Pakistan conducts school-based vision screening with support from Sightsavers International. Trained teachers in participating schools conduct vision screening of all school-attending children and other teachers, document screening results in a standardized format, and submit forms to the school principal. Principals collate and submit school-wide forms to the Designated Education Officer at the Local Education Department, who in turn, submits district-level data to the Health Department indicating where follow-up is needed. In parallel, participating hospitals accept referrals from the school vision screening program and submit monthly status reports to the National Program for Prevention and Control of Blindness as well as to the Sightsavers Pakistan Country Office. Sightsavers consolidates all programmatic data and submits quarterly reports to the Federal Directorate of Education at the Ministry of Education.</td>
</tr>
<tr>
<td><strong>Integrated Programming</strong></td>
<td>The Tanzania Education Management Information System includes metrics related to school feeding.29 The EMIS collects data on the source and amount of financial contribution (central government, council level, contribution by community, etc.) for school feeding. School feeding is largely financed through parental contributions in pre-primary, primary, and secondary schools, and the government provides secondary school meal subsidies for boarding schools where there is a paid government cook. Data for the EMIS is collected through the Annual School Census every year and is digitized and stored at the national level.30</td>
</tr>
</tbody>
</table>
Monitoring is a fundamental practice in the implementation of any program. It is best practice to integrate project monitoring from the earliest stages of project design, in alignment with its logical framework. There is no internationally accepted standardized framework for the monitoring of school health and nutrition service delivery, and as such, each monitoring system will be unique to the programs, interventions, and context.

This brief presents key principles that can be applied to monitoring systems to increase their effectiveness, which are:

1. Alignment of indicators, data sources, and frequency with existing monitoring systems
2. Standardization in collection methodology across sites
3. Simplicity and feasibility for data collectors
4. Clarity in protocols for all stages of the data collection, reporting, analysis, and feedback processes

In the context of school health and nutrition service delivery, multiple sectors will likely be engaged, and it is prudent to agree in advance on the process for transmitting data between levels and sectors as well as the to encourage a feedback loop to avoid preventable bottlenecks and facilitate adaptive programming.

Selection of indicators drives resource allocation towards the areas being assessed and incentivizes their implementation. There are a wide range of adolescent school health and nutrition indicators that can be drawn upon. However, in the context of a World Bank operation, in which adolescent school health and nutrition may be one activity within a larger investment, indicators should be selected carefully and represent no only inputs and outcomes but also program processes to increase the likelihood of achieving the intended objectives within the project period.
## Annex 1: Expanded List of Potential of Adolescent School Health and Nutrition (ASHN) Indicators for DPF, IPF, and PforR Investments

### ASHN Thematic Areas

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Input Indicators (IE DPF Investments)</th>
<th>Timeframe: 1-3 Years</th>
<th>Process and Output Indicators (IE IPF/PforR Investments)</th>
<th>Timeframe: 5-7 Years</th>
<th>Outcome Indicators (IE IPF/PforR Investments)</th>
<th>Timeframe: 5-7 Years</th>
</tr>
</thead>
</table>
| School Health and Nutrition (General) | Policy | • National poverty reduction strategy includes school health  
• National health policy that defines and fully costs a basic package of school health and nutrition services  
• Pre-service teacher training on the delivery of the essential school health and nutrition package developed  
• Fiscal revenues and/or social spending reform that includes a budget line for ASHN  
• School-based adolescent health, nutrition and population program is developed and implemented (P160846, DJJ 15)*  
• School health and nutrition indicators integrated within a management information system (HMIS, EMIS, etc.) | | • Number of secondary schools delivering the basic package of health and nutrition services  
• Number of secondary schools that have a policy allowing married adolescents and adolescent mothers to return to school  
• Number of recent teacher graduates who received pre-service training on school health and nutrition service delivery  
• Number of teachers trained in school health and nutrition activities (P131945)* | | • Number of adolescents who received the complete package of school-based health and nutrition services within the prior academic year  
• Percent increase of adolescent girls aged 15-19 who are mothers and are in school compared to baseline  
• Percent increase of recent teacher graduates who received pre-service training on school health service delivery compared to baseline  
• Percent increase in adolescent girls enrolled in secondary school compared to prior academic year |
| Physical Health & Nutrition | School-Based Violence Prevention | • Legislation that protects against and responds to institutional violence in schools | | • Number of secondary schools that have staff code of conduct that includes proscriptions against sexual abuse and harassment of students  
• Percent increase in the ratio of female to male teachers in secondary schools  
• Percent of public and community senior secondary schools offering female guidance counselor services (P164932)* | | • Percent increase in schools that have operational redress mechanisms  
• Percent of grievances received and addressed through the Project Grievance Redress Mechanisms (P170480)*  
• Percent decrease of students who experienced school-based violence or abuse in the last 12 months  
• Percent of public and community senior secondary schools that have implemented an action plan to increase community engagement and participation in reducing violence in schools, especially towards girls (P164932)* |
| Vision Screening | Vision Screening | • National poverty reduction strategy, human capital strategy, or other relevant strategy includes disability prevention | | • Number of teachers reached through in-service training to assess visual acuity  
• Number of secondary schools that screen students for vision problems  
• Number of children who were referred from a school screening program to an eye health professional | | • Number of students who were identified to have correctable vision loss that received readymade or low-cost spectacles  
• Percent reduction of students with untreated vision problems compared to baseline |

*An asterisk represents an indicator that has been used in a World Bank Project*
## ASHN THEMATIC AREAS

### INTERVENTION INPUT INDICATORS
(IE DPF INVESTMENTS)
**TIMEFRAME:** 1-3 YEARS

### PROCESS AND OUTPUT INDICATORS
(IE IPF/PforR INVESTMENTS)
**TIMEFRAME:** 5-7 YEARS

### OUTCOME INDICATORS
(IE IPF/PforR INVESTMENTS)
**TIMEFRAME:** 5-7 YEARS

<table>
<thead>
<tr>
<th>INTERVENTION</th>
<th>INPUT INDICATORS</th>
<th>PROCESS AND OUTPUT INDICATORS</th>
<th>OUTCOME INDICATORS</th>
</tr>
</thead>
</table>
| HPV Vaccination | • National vaccination program includes HPV vaccination for girls age 9-14 years, with a recommendation for school-based delivery  
• Ministry of Education and Ministry of Health have a MOU supporting school-based delivery of HPV vaccination | • Number of schools delivering HPV vaccines  
• Number of participating schools that deliver two doses of the HPV vaccine to 80% of targeted female students | • Percent increase of adolescent girls vaccinated with 2 doses of HPV vaccine by age 15 years  
• % reduction of HPV infections and related conditions, including cervical intraepithelial neoplasia (CIN) and genital warts |
| Intermittent Iron and Folic Acid (IFA) Supplementation | • National nutrition guidelines include a specific recommendation for school-based delivery of weekly IFA supplementation  
• Basic school health and nutrition package includes intermittent IFA supplementation for adolescent girls  
• Ministry of Education and Ministry of Health have a MOU supporting school-based delivery of intermittent IFA supplementation | • Number of teachers trained to deliver and counsel adolescent girls on intermittent IFA supplementation  
• Proportion of schools delivering weekly IFA supplementation to adolescent girls | • Percent of adolescent girls aged 11-19 who received IFA supplements in the project area (P164771)*  
• Percent reduction in anemia and severe anemia among adolescents aged 10-19 years compared to baseline  
• Percent increase in number of adolescent girls aged 11-19 who received the full schedule of weekly IFA supplementation within the last academic term compared to baseline |
| School Feeding | • Existence of a school feeding policy and/or national commitment for school meals  
• School feeding is included within the national poverty reduction strategy, human capital strategy, or equivalent strategy  
• National standards on nutrient content of school meals are published  
• Policy on local sourcing of ingredients for school meals | • Number of schools with guidelines on composition and sourcing of school meals  
• Number of schools offering lunch to students midway through the school day  
• Number of students attending schools which implement the health and nutrition program are fed one hot meal and one snack daily, 190 days per year (P124134)* | • Percent increase in number of school feeding days as percentage of actual school days in prior term  
• Percent increase in school attendance  
• Percent increase in number of schools that procure school meal ingredients from local producers compared to prior term |

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*An asterisk represents an indicator that has been used in a World Bank Project*
### ASHN Thematic Areas

#### Intervention

<table>
<thead>
<tr>
<th>ASHN Thematic Areas</th>
<th>Intervention</th>
<th>Input Indicators (IE DPF Investments)</th>
<th>Process and Output Indicators (IE IPF/PforR Investments)</th>
<th>Outcome Indicators (IE IPF/PforR Investments)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Timeframe: 1-3 Years</strong></td>
<td><strong>Timeframe: 5-7 Years</strong></td>
<td><strong>Timeframe: 5-7 Years</strong></td>
</tr>
<tr>
<td></td>
<td>Deworming</td>
<td>• Inclusion of helmint and schistosome control commodities in the basic package of school health interventions</td>
<td>• Number of children receiving anthelmintic treatment (school-age children) (P131945)*</td>
<td>• Percent reduction in anemia and severe anemia among adolescents aged 10-19 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• National policy on helmint and schistosome control includes specific recommendations on delivering treatment to pregnant adolescents</td>
<td>• Number of schools supported by Community Nutrition Agents during deworming sessions (P131945)*</td>
<td>• Percent improvement on cognitive test among treated adolescents with heavy intensity infections</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ministry of Education and Ministry of Health sign a MOU supporting school-based delivery of deworming tablets</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nutrition Education and Promotion of Healthy Lifestyles</td>
<td>• National policies on the nutritional standards of food and beverages sold in school canteens are published</td>
<td>• Number of teachers who received training on nutrition and healthy lifestyle education</td>
<td>• Percent increase in number of adolescents participating in at least 60 minutes of physical activity per day during the past seven days compared to baseline</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Number of schools with a safe and clean space that can be used for recess, sports, physical education, or other physical activity</td>
<td>• Percent reduction in the prevalence of overweight adolescents in school (&gt; 1 SD above weight and height for age) compared to baseline</td>
</tr>
<tr>
<td></td>
<td>Education Interventions that Promote Health</td>
<td>• National minimum curriculum standards on comprehensive sexuality education and life skills education are published</td>
<td>• Number of teachers who received at least 8 hours of in-service training in evidence-based comprehensive sexuality education</td>
<td>• Number of additional institutions that have teachers trained to teach comprehensive sexuality education two years after baseline</td>
</tr>
<tr>
<td></td>
<td>Comprehensive Sexuality Education</td>
<td>• Ministerial Order allowing access to family planning assistance to married adolescent girls without parents’ or husbands’ mandatory accompaniment (P169830, Prior Action 2)</td>
<td>• Percentage of secondary schools offering sexual and reproductive health services (information and contraceptive methods) in the last X months (P163541)*</td>
<td>• Percent increase of self-reported condom use during most recent sexual intercourse among adolescents ages 10-19 years compared to baseline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Ministerial Order allowing adolescent girls to remain enrolled in school in the event of pregnancy or marriage (P169830, Prior Action 3)</td>
<td>• Number of schools with referral mechanisms to adolescent friendly health facilities for contraceptive methods and family planning counseling</td>
<td>• Percent increase in met demand for family planning among adolescent girls compared to baseline</td>
</tr>
<tr>
<td></td>
<td>Menstrual Health and Hygiene</td>
<td>• National standards on the provision of safe and accessible WASH facilities in schools are published</td>
<td>• Number of districts (or other appropriate administrative unit) where 90 percent of public schools have access to safe water and sanitary facilities</td>
<td>• Percent increase in the proportion of adolescents who correctly identify the two major ways of preventing sexual transmission of HIV compared to baseline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• National policies guarantee the provision of facilities and materials for adolescent girls and female teachers to manage menstrual health and hygiene safely and with dignity at school</td>
<td>• Percent decrease in school absence due to menstruation compared to baseline</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Percent decrease in school absence due to menstruation compared to baseline</td>
</tr>
</tbody>
</table>

*An asterisk represents an indicator that has been used in a World Bank Project*
### Relevant Adolescent School Health and Nutrition (ASHN) Indicators from World Bank

**Annex 2: ASHN-Related Intermediate Results Indicators from World Bank Projects**

<table>
<thead>
<tr>
<th>Project</th>
<th>Indicator Name</th>
<th>Definition/Description</th>
<th>Frequency</th>
<th>Data Source</th>
<th>Methodology for Data Collection</th>
<th>Responsibility for Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haiti Education for All Project Phase II (P124134)</td>
<td>Children participating in integrated nutrition/health program</td>
<td>Students attending schools which implement the health and nutrition program and are fed one hot meal and one snack daily 190 days per year</td>
<td>Annual</td>
<td>Supervision reports by National School Feeding Program (Programme National des Cantines Scolaires, PNCS)</td>
<td>Supervision reports by PNCS</td>
<td>PNCS, with support from Universal Primary Education (Éducation Primaire Universelle, UPE)</td>
</tr>
<tr>
<td>Madagascar Emergency Support to Critical Education, Health and Nutrition Services Project (P131945)</td>
<td>Number of children receiving anthelminthic treatment (school age children)</td>
<td>Cumulative (difference increase Y1 to Y3)</td>
<td>Annual</td>
<td>Project progress report (PIU)</td>
<td>Project Implementation Unit (PIU) Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of teachers trained in school health and nutrition activities</td>
<td>Cumulative (difference increase Y1 to Y3)</td>
<td>Annual</td>
<td>Project progress report (PIU)</td>
<td>Project Implementation Unit (PIU) Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of Community Nutrition Agents trained to provide health and nutrition education</td>
<td></td>
<td>Annual</td>
<td>Project progress report (PIU)</td>
<td>Project Implementation Unit (PIU) Education</td>
<td></td>
</tr>
</tbody>
</table>
| Investing in Early Years for Growth and Productivity in Malawi (P164771) | Adolescent girls aged 11-19 who received iron-folate supplementation           | **Numerator:** number of adolescent girls aged 11-19 years who receive iron-folate supplementation in project areas.  
**Denominator:** total number of adolescent girls aged 11-19 years who receive iron-folate supplementation in project areas. | Every six months | National Nutrition M&E System                                                                            | Routine monitoring                                           | Ministry of Health                                           |
<p>| Tanzania Secondary Education Quality Improvement Project (SEQUIP) (P170480) | Percentage of grievances received and addressed through the Project Grievance Redress Mechanisms | Percentage of grievances reported through Project Grievance Redress Mechanisms and addressed                                                                                                                            | Annual    | Grievance Redress Mechanism (GRM) reports provided to Project Coordination Team from LGAs                 | Local Government Authorities (LGA) reports from school and LGA logs of grievances and remedial actions | Ministry of Education, Science and Technology (MoEST) and President’s Office Regional Administration and Local Government (PO-RALG) |
| Liberia Improving Results for Secondary Education (IRISE) Project (P164932) | Percentage of public and community senior secondary schools offering female guidance counselor services | This indicator tracks the percent of public and community senior secondary schools that have a qualified female guidance counselor on staff, offering guidance counselor services as per the ToR, which specifies the role and responsibilities of the counselor. Yearly (cumulative) | Civil Service Agence (CSA) - MoE employee payroll registry and a survey of a representative sample of schools to determine whether a female guidance counselor is on staff and provides guidance counselor services. | Bureau of Fiscal affairs and Human Resource Development at the MoE and independent survey firm (IVA) | CSM-MoE employee payroll registry and survey report          |                                                             |
|                                                                       | Percentage of public and community senior secondary schools that have implemented an action plan for community engagement | This indicator tracks the percentage of public and community senior secondary schools that have implemented an action plan to increase community engagement and participation in reducing violence in schools, specially towards girls. Yearly (cumulative) | Project monitoring reports and survey of a representative sample of schools and interviews of community members to determine whether schools have implemented the action plan. | MoE and independent survey firm (IVA)                          | Project monitoring report and survey report                   |                                                             |</p>
<table>
<thead>
<tr>
<th>PROJECT</th>
<th>PRIOR ACTIONS</th>
<th>INDICATIVE TRIGGERS</th>
<th>RESULTS INDICATOR</th>
</tr>
</thead>
</table>

**Bangladesh Health Sector Support Project (P160846)** | DLI 15. School-based adolescent HNP program is developed and implemented US$25 million | Year 1 target: Revised teacher training manual is approved. Year 2 target: Assessment of current school-based services in Sylhet and Chittagong divisions is jointly completed with the education sector. Year 3 target: Training-of-trainers is completed for school-based adolescent HNP program in Sylhet and Chittagong divisions. Year 4 target: Orientation of teachers and peer girl students is completed in at least 30% of public secondary schools in each targeted district in Sylhet and Chittagong divisions. | Allocated amounts: US$3 million US$5 million US$7 million US$10 million -- |

**Mozambique Primary Health Care Strengthening Program (P163541)** | DLI 2: Percentage of secondary schools offering sexual and reproductive health services (information and contraceptive methods), based on visits by health professionals, at least monthly. | Target Y1: 53.5% Target Y2: 60% Target Y3: 66.5% Target Y4: 73% Target Y5: 80% | Allocated amounts: US$3.5 million US$3.0 million US$3.0 million US$3.0 million US$2.5 million |


7. PATH, LSHTM. HPV vaccine lessons learned and recommendations [Internet]. 2016. Available from: www.lshtm.ac.uk

8. UNESCO. Monitoring and Evaluation Guidance for School Health Programs Thematic Indicators Supporting FRESH (Focusing Resources on Effective School Health) [Internet]. 2014. Available from: http://creativecommons.org/licenses/by-nc-sa/4.0/deed.en_US.


