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Secondary Education Guidance

Multiple and Flexible Pathways

Acknowledgements

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Secondary Education Guidance: Multiple and Flexible Pathways

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1. Introduction

Education for adolescents: A second window of opportunity

There are nearly 200 million lower and upper secondary age adolescent girls and boys out of school globally[1], and if current trends continue, another 825 million children will not acquire basic secondary-level skills by 2030.[2] Global momentum to achieve universal primary education has placed increased demands on secondary education systems to serve more students, from a wider range of backgrounds, and to do so more effectively and inclusively. Many of the most marginalized adolescents in lower income countries who are enrolled in school have fallen years behind their peers.

Expanding provision of formal secondary education and non-formal education for out-of-school adolescents has distinct benefits for adolescents themselves, as well as their families, communities, and countries. According to UNESCO[3], the global poverty rate would be more than halved if all adults completed secondary school. Secondary education is a prime opportunity to refine foundational skills and develop skills for employment, active citizenship and personal empowerment.

Adolescence is a time of opportunity

We now recognize two stages of rapid development in a child's life: in the early years and in adolescence. In most LICs and MICs, marginalized adolescents did not benefit from quality early childhood development, including pre-primary education. In addition to early educational investment, targeted education interventions for marginalized adolescents are important to ensure they realize their potential during their second window of developmental opportunity, a period with life-long lasting effects.

There is strong evidence that **completing secondary education is associated with greater economic, social and political benefits than primary education alone.** Multiple studies show that secondary education has a positive effect on cognitive skills, which in turn correlate strongly with increased wages and GDP growth[4], poverty reduction, and reduced fertility and population growth.[5] Secondary education returns have been demonstrated for low and middle income countries, with women experiencing higher returns than men[6], reinforcing that the education of adolescent girls remain a priority.

UNICEF's ambition

UNICEF's goal is that girls and boys, in particular the most marginalized and those affected by humanitarian situations, are provided with inclusive and equitable quality education and learning opportunities, including lower and upper secondary education. UNICEF will support Governments to achieve the SDG4 commitment of 12 years of free, quality and inclusive education, including advice and support on how to expand access to secondary education equitably and progressively.

The equitable expansion of secondary education in LICs and MICs, a key objective within UNICEF Strategic Plan (2018-2021), is not only a requirement for achieving SDG4 but also underpins broader SDG targets on gender equality, skills development, global citizenship and sustainable development, and reducing the proportion of youth not in employment, education or training. To do this, UNICEF works with governments, communities and other key partners to improve access to learning and skills development across the life cycle through both formal and non-formal education, including in fragile and humanitarian contexts.

UNICEF Education Strategy 2019–2030 focuses on marginalized children. Fulfilling marginalized secondary school-age children's right to education requires a focus

on strengthening multiple flexible education pathways, including catch-up education, vocational training, apprenticeships, and formal primary and secondary education. One of the strategic shifts in the Education Strategy is a greater focus on the education of marginalized adolescents.

Acknowledging that needs will differ significantly according to country context, UNICEF will adopt three core strategies for secondary education:

- supporting quality formal primary education (for those currently in primary education and for those who never attended school but are still age-eligible to enter primary) and secondary education, with a particular focus on reaching the most marginalized adolescents;
- strengthening non-formal education and alternative delivery models (e.g., catch-up classes, bridging and accelerated education, second-chance education, skills development training and apprenticeships), including the recognition, validation and accreditation of non-formal learning outcomes;
- advancing adolescent girls' secondary education, learning and skills development (including in science, technology, engineering and mathematics [STEM]) as part of the UNICEF Gender Action Plan targeted priorities; this will be complemented by cross sectoral work addressing child marriage, harmful social norms and gender-based violence in and around schools.

Global data show that the SDG4 target of free, inclusive and quality secondary education for all by 2030 remains a distant goal for many lower and lower-middle income countries. That is why UNICEF, with governments and partners, must take bold steps to reimagine secondary age education as a system that provides *multiple pathways* to knowledge and skills so that ALL adolescents can learn.

To achieve these goals, UNICEF will support governments to progressively universalize secondary education and prioritize disadvantaged adolescents while maintaining a commitment to strengthening education systems, including those at the primary level. Progress for those left furthest behind needs to be even more accelerated than it is for adolescents who enjoy greater access to learning opportunities.

UNICEF can assist governments to make phased plans to achieve the ambition of 12 years of fee-free primary, lower and upper secondary education by 2030 by identifying strategic actions/entry points depending on context. UNICEF can provide technical assistance to create plans containing interim targets and monitoring frameworks for accountability and measuring progress. **UNICEF can also engage in policy dialogue at the country level** so that governments consider trade-offs in terms of priorities both across and within sectors.

UNICEF will advise governments to continue to invest in improving the quality of education and learning outcomes at the primary level, as they are important predictors of adolescent learning outcomes at the secondary education level. Likewise, UNICEF will advise governments to expand secondary education progressively and emphasize quality, since access to secondary education without achieving basic learning outcomes is a wasted investment for both families and governments.

With the Strategic Plan (2018-2021), UNICEF aims to contribute to increased completion rates and gross enrolment in lower and upper secondary education. To deliver this, UNICEF will support governments to build strong and coherent education systems that incentivize and support adolescent learning while applying a targeted approach for the most disadvantaged. As part of a relevant secondary education, UNICEF will enable access to gender equitable skills development opportunities. UNICEF will use direct service delivery in humanitarian situations, least developed countries and fragile contexts.

Global data trends in secondary education

- **Lower secondary education is compulsory in three out of four countries where UNICEF operates.** In these countries, the duration of lower and upper secondary and the duration of compulsory education varies. Of the 43 countries without compulsory lower secondary education, most are in Eastern and Southern Africa,[7] East Asia and the Pacific[8] and West and Central Africa.[9] Nearly all countries in Middle East and North Africa, Europe and Central Asia, Latin America and the Caribbean have at least compulsory lower secondary education. In South Asia, Afghanistan, India, and Sri Lanka have compulsory lower secondary, and Pakistan has compulsory upper secondary.

- Two hundred million adolescent boys and girls are out of school. According to the latest data, 198 million adolescents of lower and upper secondary school age are out of school. Of these, 61 million are lower secondary age, while 138 million are of upper secondary school age. Globally, this represents 1 in 6 children of lower secondary age and 1 in 3 children of upper secondary age adolescents.[10]

- Three regions are home to nearly nine out of ten out-of-school secondary age adolescents: Southern Asia (85 million); sub-Saharan Africa (63 million); and Eastern and South-Eastern Asia (23 million).[11] Looking to 2030, the world is not on track to meet the SDG4 ambition of universal upper secondary school completion. To do so, all children need to have been enrolled in primary school by 2018, yet the intake rate in low-income countries was only 73 per cent in 2016.[12] Globally, school completion rates have fallen to 85 per cent primary education completion, 73 per cent lower secondary completion and 49 per cent upper secondary completion.

- Out-of-school adolescents are disproportionally from poor and rural households, those affected by conflict and migration and adolescents with disabilities. These children tend to face multiple barriers to education, barriers that tend to increase with age, with older adolescents more likely to be out of school. Household wealth is the most powerful determinant of progression to grade 9 and beyond.[13] Adolescents from the poorest households are much less likely to complete secondary education than those from the richest in all UNICEF regions, but especially in countries facing the highest challenges.[14] Gender can be a compounding disadvantage: girls in marginalized groups are more likely to be out of school and boys are more likely to face higher rates of child labour. Conflict is another barrier resulting in education exclusion. In areas affected by conflict, adolescents of lower secondary age are two thirds more likely to be out of school and half as likely to complete lower secondary, with adolescent girls disproportionately more affected. Less than a quarter of the world's refugees of secondary age are enrolled in secondary school, and only 1 per cent make it to higher education. Across all regions, disability is also a significant barrier linked to education exclusion, especially at the secondary level. In low and lower-middle income countries, around 55 per cent of adolescents of lower secondary age with disabilities are out of school compared to 40 per cent at primary school age.

- In six out of seven UNICEF regions, most adolescents from the poorest quintile have never set foot in lower secondary education. In low and lower-middle-income countries, the majority of adolescents aged 10-19 have never attended secondary education. Many adolescents, particularly adolescent girls in ESA, MENA, SA and WCA are likely to have never attended school or to have dropped out of primary education without completion.

- Private institutions represent about 20 per cent of enrolment at the lower secondary level and 25 per cent of enrolment at the upper secondary level.[15] Private secondary education enrolment is more common than private primary education enrolment, but the highest private enrolment is at the pre-primary education level.

- Across all regions, technical and vocational education make up less than 5 per cent of lower secondary enrolment. At the upper secondary level, enrolment in TVET increases significantly, from 4 per cent in

ROSA to 36% per cent in EAP and 52 per cent in ECA (see Fig. 2).[16] Boys are more likely to be enrolled in upper secondary TVET than girls across all regions.

- Globally, six out of ten children and adolescents are not achieving minimum proficiency levels in reading and mathematics. Almost 56% per cent of all children will not be able to read or handle mathematics with proficiency by the time they are of age to complete primary education. For adolescents, the proportion is even higher, at 61 per cent. These gaps in learning achievement reflect not only the inadequate quality of secondary education but the accumulation of learning gaps throughout schooling beginning from pre-primary.

- More than one in five adolescents and youth aged 15-24 do not participate in education, employment or training (NEETs). This rate is even higher in low and middle-income countries. Because upper secondary age coincides with the legal age for employment in most countries, programming for this age group must consider access to education, employment and training. Three-quarters of adolescents and youth NEET are girls, underscoring the important gender imbalance in the school-to-work transition.

Purpose and structure of this guidance

In alignment with the focus on the most marginalized adolescent girls and boys brought forward in the UNICEF Strategic Plan (2018-2021), this global guidance emphasizes recommendations for COs to support governments in guaranteeing the right to education of marginalized adolescents. The guidance is intended to inform CPD development, Programme Strategy Notes, and the design, development and implementation of strategies for equipping marginalized adolescents with the learning and skills that are developed through participation in lower and upper secondary education.

This guidance offers differentiated recommendations for countries at various stages of the progressive universalization of lower and upper secondary education. The East Asia and Pacific and Latin America and the Caribbean regional offices have developed guidance tailored to their regional contexts to support their country offices to advocate and programme for the second decade.[17] Inspired by and aligned to these regional strategies, this guidance presents principles of good programming, key concepts, and useful tools and resources to orient CO programming on secondary education, using data to identify where and which adolescents are in and out of the education system and why. Based on the diagnostic, the guidance presents programming recommendations and illustrative case studies aligned to the strategic plan, as well as costing and financing models, monitoring and evaluation tools, and insights on advocacy and partnerships.

Defining secondary education

Secondary education is meant to prepare adolescents to make life choices, transition to work, and engage in their societies; as a result, its curriculum and content is specialized and needs to be responsive to changes in demand over time. Traditionally, in most LICs and MICs, secondary education was only accessible to elites; as such, the curricula was highly academic to prepare adolescents for future tertiary education in specific professional fields. However, as participation in secondary education has broadened to a wider group of adolescents, there is increased demand for secondary education to not only prepare students for higher education but also to equip students to find employment and live healthy and empowered lives. Traditional curricula, teaching methods and strict school timetables have become less relevant to the current needs of adolescents and potential employers. Diverse learning options are increasingly being offered to maintain learner interest and engagement and address disengagement and drop out, much higher in adolescence due to both push and pull factors.[18]

The exact age that children attend secondary education and its nomenclature vary across countries. Some countries operate with separate lower and upper secondary schools, while others have combined primary and lower secondary

Secondary education (ISCED levels 2 and 3)

Secondary education provides learning and educational activities building on primary education and preparing for labour market entry, post-secondary non-tertiary education and tertiary education. Broadly speaking, secondary education aims at learning at an intermediate level of complexity. ISCED distinguishes between lower and upper secondary education.

UNESCO, UIS 2011

education in one cycle with a separate cycle for upper secondary education. Countries use varied terminology for secondary school: terms for lower secondary include junior secondary, junior high school and upper primary, while terms for upper secondary include senior secondary, high school, preparatory school, or simply secondary.

UNESCO has developed an International Standard Classification of Education (ISCED) levels applied to the content of national curricula regardless of local terminology: in this classification, secondary education is divided in two stages: lower secondary and upper secondary.

Lower secondary (ISCED 2) education continues the basic programmes of the primary level. Teaching is typically more subject-focused, often employing more subject specialized teachers. The end of this level often coincides with the end of compulsory education where it exists. The entrance age into the lower secondary level varies across countries but is typically between 10-13 years.

Upper secondary education (ISCED 3) corresponds to the final stage of secondary education in most countries. Teachers typically need specialized content knowledge and higher educational attainment. The entrance age into the upper secondary level is typically 15 or 16 years.

Lower secondary education is compulsory in most countries, and after its completion, adolescents have the right to both education and work. Upper secondary education is rarely compulsory, even in high income countries, and there are multiple pathways and providers to complete this cycle. Primary, lower secondary and upper secondary education tend to be organized differently in terms of subject specialization, student teacher ratios, hours of instruction, and other relevant factors, all of which impact the cost per student and the universalization strategies at each level. Both the duration of lower and upper secondary education and whether is compulsory vary across countries (See Figure 1).

Adolescents of secondary school age

There is an important distinction between secondary school students (those enrolled in secondary education who may be of any age) and adolescents of secondary school age (those in the official age range for lower and upper secondary education, which varies by national education system). Adolescents are defined as ages 10-19. This guidance focuses on adolescents who are of secondary school age, who in some national systems may also be within legal age for employment. Therefore, upper secondary age adolescents have the right to education and the right to work, and may be in school, work and/or training.

Most marginalized adolescent girls and boys of secondary age in lower income countries are not in secondary school at all. They may have never been to school, may have been enrolled but dropped out of primary education, or may still be enrolled in primary education as overage students due to late primary school registration, repetition, dropout and re-entry (interruption of education). Globally, most adolescents aged 10-19 from the poorest quintile have either never attended or have left school before secondary education (see Figure 2). Multiple and Flexible Pathways to secondary education are an education response with the potential to respond to the educational needs of marginalized adolescents.

Figure 1 Theoretical entrance age and duration, by level of education (selected countries)[19]

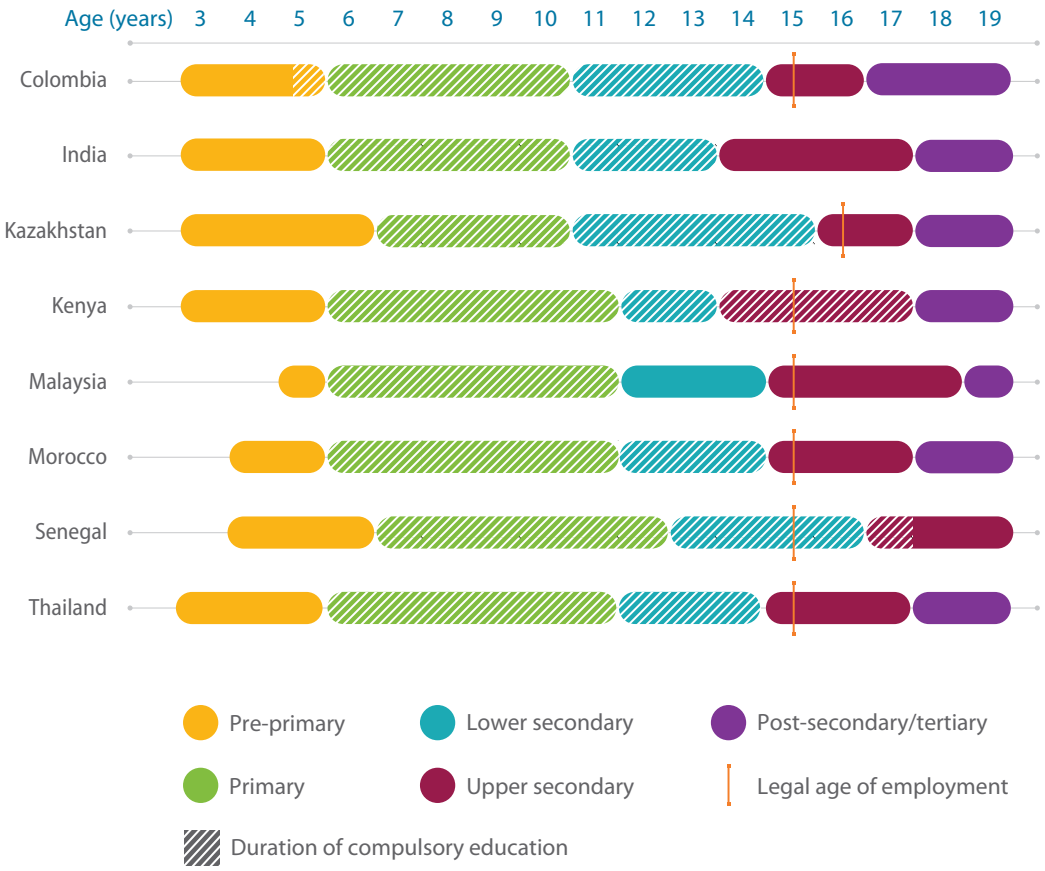
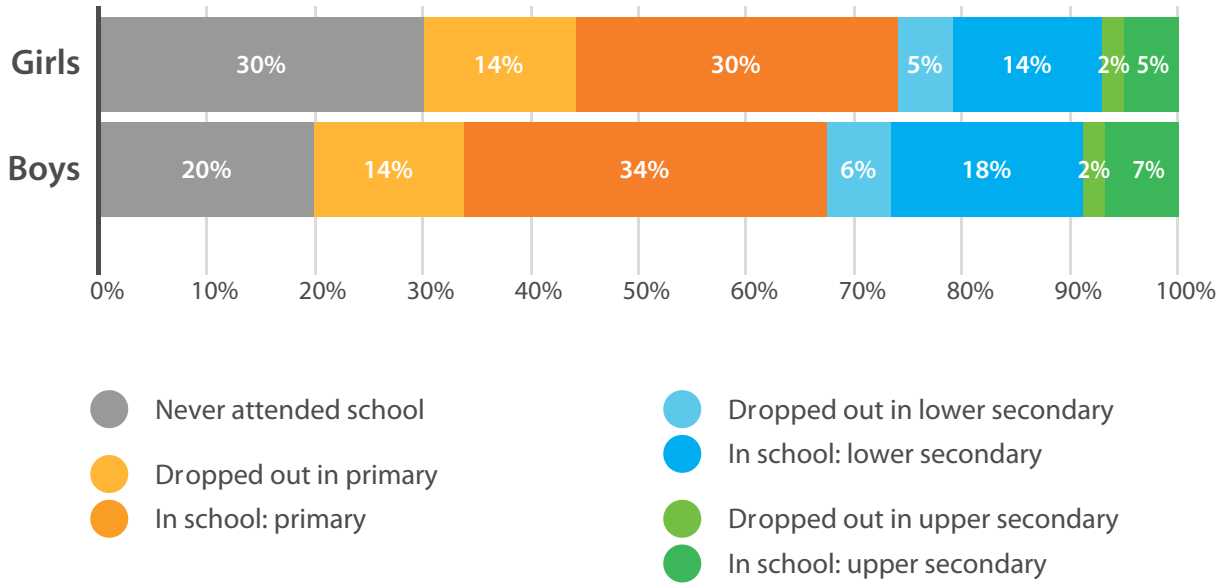


Figure 2 Distribution of disadvantaged (poorest quintile) adolescent girls and boys (10-19 years old) globally, by education status[20]



Source: UNICEF calculations from international household surveys.

Multiple and Flexible Pathways to secondary education

Multiple and Flexible Pathways to secondary education can be part of formal or non-formal education depending on the country and are often called "Alternative Education." To avoid confusion between "Alternative Education" and "Accelerated Education," this guidance will refer to non-traditional learning programmes as Multiple and Flexible Pathways (MFP).

As the name implies, there is no one size fits all MFP, and depending on the context, the needs of the learner and the age group, MFPs vary widely. MFPs can have different objectives, take different forms, provide different content and lead to different learning outcomes. They are often cross-sectoral and are governed by several ministries, including ministries of education, labour, health, social affairs, women's affairs and agriculture. They are often implemented by a large array of providers, including government and NGOs. At the same time, MFPs can be categorized based on their main objectives and target groups. See Table 1 for a description of MFP programmes of particular relevance to out-of-school adolescents or marginalized adolescents at risk of dropout:

Various MFP programmes can address many of the barriers to accessing secondary education (See Figure 3).

Alternative modalities of secondary education delivery

Alternative modalities of secondary education delivery provide a government-recognized alternate pathway through primary and/or secondary level education for adolescents who experience life circumstances incompatible with full participation in traditional schooling.

Table 1 Relevant MFP programmes for out-of-school or marginalized adolescents

Programmes aiming to facilitate re-entry of out-of-school adolescents into formal education or to prevent dropout of marginalized adolescents

Accelerated Learning Programmes (ALPs) target out-of-school or over-age adolescents and youth who either did not complete their education at a given educational level (primary or lower secondary) or are lagging several years behind their peers. They deliver the formal curriculum within a compressed period and provide certified competencies that are equivalent to formal education. AEPs for younger adolescents aim to facilitate their re-entry into formal general or vocational education. ALPs are also provided to older adolescents who wish to obtain their school certificate to access further education and/or training opportunities.

Short-term alternative education programmes and second chance education is education specifically targeted at individuals who, for a variety of reasons, never attended school or left school before completion of the level of education in which they were enrolled; or completed the level but wish to enter an education programme or occupation for which they are not yet qualified.[21]

- catch-up programmes address learning gaps for adolescents who have recently dropped out to facilitate their re-entry into lower or upper secondary education.
- bridging programmes facilitate the integration of migrants into the formal education system by preparing them for the new educational context/system.
- re-integration or re-engagement programs for recent dropouts address broader support needs (beyond academic) in order to encourage and support an adolescent's return to school.

Alternative modalities of secondary education delivery are used in various contexts, for example hard-to-reach rural communities with no access to nearby schools, or for adolescents with caregiving or work responsibilities that are incompatible with mainstream schooling. The formal curriculum is adapted to flexible timeframes and uses adapted pedagogical methods and materials as well as ICT-supported learning. These modalities are usually part of the formal education system and lead to certification.

Programmes aiming to provide older adolescents (15-19) and NEETs youth with the necessary knowledge and skills for life and decent work

Technical and vocational education and training (TVET) comprises education, training and skills development relating to a wide range of occupational fields, production, services and livelihoods.

TVET, as part of lifelong learning, can take place at secondary, post-secondary and tertiary levels and includes work-based learning and ongoing training and professional development which may lead to qualifications. TVET includes a wide range of skills development opportunities attuned to national and local contexts.[22]

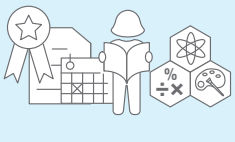
Apprenticeship usually combines on-the-job training and work experience with institution-based training and can be regulated by law or by custom.[23]

Figure 3 What is the specific barrier preventing adolescents from accessing secondary education?

6 COMMON BARRIERS

- Has not completed primary education
- Behind grade-level competence, or over-age
- Education disrupted by emergencies
- Policy restrictions*
- Lack of supply of secondary schools that are accessible/safe
- Need to combine study and work or domestic responsibilities

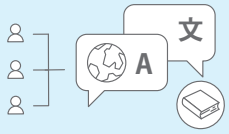
4 PROGRAMMATIC SOLUTIONS



Accelerated Learning Programmes

Essential knowledge and skills from primary and/or lower secondary curricula are covered in an accelerated timeframe.

Should lead to certification.



Bridging Programmes

Short-term courses focused on language proficiency and preparation for enrollment in the education system of a new context or country.

Includes temporary education centres.

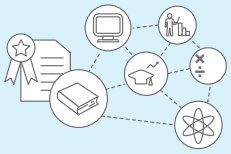
Does not lead to certification.

Catch-up Programmes

A short-term transitional programme for adolescents previously enrolled in upper primary or lower secondary who have interrupted their education.

Provides support for re-entering the formal education system.

Does not lead to certification.



Alternative modalities of secondary education delivery

These adapt secondary education curricula to flexible timeframes and use pedagogies and materials requiring fewer teachers.

They include ICT-based programmes.

Should lead to certification.

Re-enrollment in regular secondary education

TRANSITION TO FURTHER EDUCATION, TRAINING OR EMPLOYMENT

** Adolescent mothers and adolescents in conflict with the law are often excluded from the education system, due to policies that disallow them to enroll in regular schools*

Quality alternative modalities of secondary education delivery should:

- remove financial barriers to education such as fees and other costs (uniform, materials); for working adolescents, cash incentives may be required to offset the opportunity cost of participation;
- provide special accommodations in terms of academic and psychosocial supports and flexible school demands (e.g. accelerated curricula, timetables, homework);
- provide certification recognized within the formal education system;
- be included in the National Education Sector Plan and budget;
- aim for low drop out and comparable performance to mainstream education in national learning assessments.

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2. Financing secondary education: Scale of the challenge

Completion: Despite expansion of fee-free secondary education, many youth in low and middle income countries are still not able to access secondary education. Currently, 62 million lower secondary school-age youth and 138 million upper secondary school-age youth are out of school according to UIS data for the 2018 school year. If current trends continue, less than a third of school-age children in low income countries will complete both lower and upper secondary school in 2030. In lower-middle-income countries, completion rates are projected to reach only 63 per cent by 2030, up from roughly half of children completing both lower and upper secondary today.

Sub-Saharan Africa is furthest behind in secondary completion, with moderate increases expected in the next decade under current trends. Still, if current trends continue, by 2030, only 56 per cent of school-age children will complete lower secondary, rising to only two thirds of children in Sub-Saharan Africa by 2050 compared to less than half today. At the upper secondary level, completion rates are projected to be less than 40 per cent by 2030 and slightly over 50 per cent by 2050 compared to the less than a third of adolescents who complete upper secondary today.

The Middle East and South Asia also have low levels of completion, especially at the upper secondary level. In the Middle East, moderate increases in completion are projected, with only 60 per cent of adolescents completing upper secondary by 2030, an increase from the roughly half of adolescents who complete upper secondary today. In South Asia, based on current trends, strong progress is projected, with the region reaching 71 per cent and 90 per cent completion in lower and upper secondary respectively by 2030 and nearly universal completion by 2050 (See Table 2).

Table 2 Enrolment and completion under current trends[24]

	LICs			LMICs			UMICs			All countries		
Completion Rate	**2015**	**2030**	**2050**	**2015**	**2030**	**2050**	**2015**	**2030**	**2050**	**2015**	**2030**	**2050**
Lower Secondary	36	50	61	69	79	85	83	85	87	66	74	80
Upper Secondary	19	31	46	50	63	76	74	74	80	51	60	71
Average	28	41	54	59	71	81	78	79	84	59	67	76

	Central Asia			East Asia-Pacific			Latin America			Middle East			South Asia			Sub-Saharan Africa		
Completion Rate	**2015**	**2030**	**2050**	**2015**	**2030**	**2050**	**2015**	**2030**	**2050**	**2015**	**2030**	**2050**	**2015**	**2030**	**2050**	**2015**	**2030**	**2050**
Lower Secondary	87	87	89	80	89	93	79	84	88	68	73	76	78	90	96	43	56	66
Upper Secondary	103	84	88	50	69	82	61	72	79	53	60	67	42	71	91	27	38	53
Average	95	85	88	65	79	88	70	78	83	61	66	72	60	81	93	35	47	59

The quality of secondary education is also a challenge. Today only 21 per cent of children in low income countries—whether in or out of school—are reaching lower secondary learning benchmarks. If current trends continue for the next decade, less than 30 per cent of secondary school age children in low income countries will be on track to reach secondary level learning benchmarks by 2030. For lower middle-income countries, half of children are reaching secondary learning benchmarks today with a projected rise to 61 per cent by 2030 if current trends continue (see Table 3).

Table 3 Percentage of children reaching basic secondary level learning benchmarks under current trends[25]

	LICs			LMICs			UMICs			All countries		
Year	2015	2030	2050	2015	2030	2050	2015	2030	2050	2015	2030	2050
% Reaching benchmark	21%	29%	42%	50%	61%	74%	65%	74%	82%	49%	58%	69%

	Central Asia			East Asia-Pacific			Latin America			Middle East			South Asia			Sub-Saharan Africa		
Year	2015	2030	2050	2015	2030	2050	2015	2030	2050	2015	2030	2050	2015	2030	2050	2015	2030	2050
% Reaching benchmark	73%	81%	88%	54%	65%	76%	60%	70%	81%	61%	70%	77%	59%	69%	81%	26%	36%	49%

Reaching educational benchmarks: Sub-Saharan Africa has the lowest recorded levels of learning today, with only a quarter of children reaching the basic benchmarks at the lower secondary level. This proportion is projected to increase by only ten percentage points by 2030 unless strong investment and reforms are made in the region. Just over half of children in **East Asia and the Pacific** are learning basic secondary skills today, primarily due to low learning levels in the Pacific Island states. These are projected to increase to 65 per cent under current trends by 2030. In **South Asia, Latin America, and the Middle East**, about 60% per cent of children are learning basic lower secondary level skills today, and by 2030, if no new investment and reforms are made, only about 70 per cent. of children will be reaching basic learning levels in these regions. Learning projections are calculated using international and regional secondary-level learning assessments as available by country.

Costing a vision scenario

Ensuring that all young people have access to secondary education that prepares them for the future of work and life will require substantial resources. If all countries accelerated progress to the rate of the fastest improving countries in education, all children would have access to secondary education, and the proportion of girls and boys achieving secondary level skills in low-income countries could reach current levels in high income countries today. Our estimates suggest that for low and middle income countries to reach these secondary education targets by 2030, financing needs at the secondary level would be $753 billion per year: $378 billion at the upper secondary level and $374 billion at lower secondary level. This is in contrast to the $384 billion spent in total for lower and upper secondary school in these countries today.

Table 4 Financing needs for the vision scenario by country income group[26] (Costs, USD billions)

Vision[27]	LICs		LMICs		UMICs		All countries	
Year	**2015**	**2030**	**2015**	**2030**	**2015**	**2030**	**2015**	**2030**
Lower Secondary Total	**3.3**	**21.7**	**50.5**	**141.3**	**155.6**	**211.2**	**209.4**	**374.2**
Teacher salary	2.4	10.1	35.0	79.4	104.3	121.7	141.7	211.2
Non-salary recurrent*	0.6	5.5	10.4	42.7	39.5	65.5	50.5	113.7
School construction	0.2	3.0	3.0	10.6	7.1	14.2	10.2	27.9
Other permanent school capital	0.1	2.0	2.0	7.0	4.7	9.4	6.8	18.4
Support for marginalized students	0.0	1.1	0.0	1.5	0.0	0.4	0.0	3.0
Upper Secondary Total	**2.3**	**13.6**	**45.5**	**162.6**	**126.9**	**202.4**	**174.8**	**378.7**
Teacher salary	1.5	6.0	30.9	79.5	80.9	106.4	113.3	191.9
Non-salary recurrent*	0.6	3.3	10.7	42.8	36.6	57.3	47.9	103.3
School construction	0.1	2.3	2.4	21.9	5.6	23.1	8.2	47.3
Other permanent school capital	0.1	1.5	1.6	14.4	3.7	15.2	5.4	31.2
Support for marginalized students	0.0	0.6	0.0	4.0	0.0	0.5	0.0	5.0
Total secondary cost	**5.6**	**35.4**	**96.0**	**303.9**	**282.5**	**413.6**	**384.2**	**752.8**
%GDP Lower Secondary	1.09%	2.73%	1.31%	1.48%	1.23%	1.11%	1.23%	1.65%
%GDP Upper Secondary	0.77%	2.01%	0.90%	1.27%	0.94%	0.86%	0.88%	1.30%
%GDP Total Secondary	1.86%	4.75%	2.20%	2.75%	2.18%	1.97%	2.11%	2.95%

* Non-salary recurrent costs include learning-focused interventions and programming, books, in-service training, etc.

Equity challenges and financing options in a context of scarce resources

The scale of the challenge to ensure that all young people complete a secondary education that prepares them for the future of work is vast. Costing estimates indicated that substantial additional resources would be required even before the inevitable increases due to the COVID-19 crisis, which is not yet factored into available costing models. Additional resources will need to come from a combination of domestic, international, public and private sources, as well as efficiency gains. There are a number of financing instruments that can be used to target the hardest-to-reach and most marginalized students, particularly in contexts where resources are limited.

Using progressive universalism as the guiding principle for mobilizing and allocating additional resources for secondary education

SDG4.1 calls on all countries to ensure that all girls and boys complete free, equitable and quality primary *and* secondary education by 2030. For many countries, however, the path towards free secondary education will be determined by trade-offs, as budgets may be insufficient to cover full financing of both primary and secondary education. In its flagship Learning Generation report, the Education Commission recommends that, when considering trade-offs and balancing spending across different levels of education and population

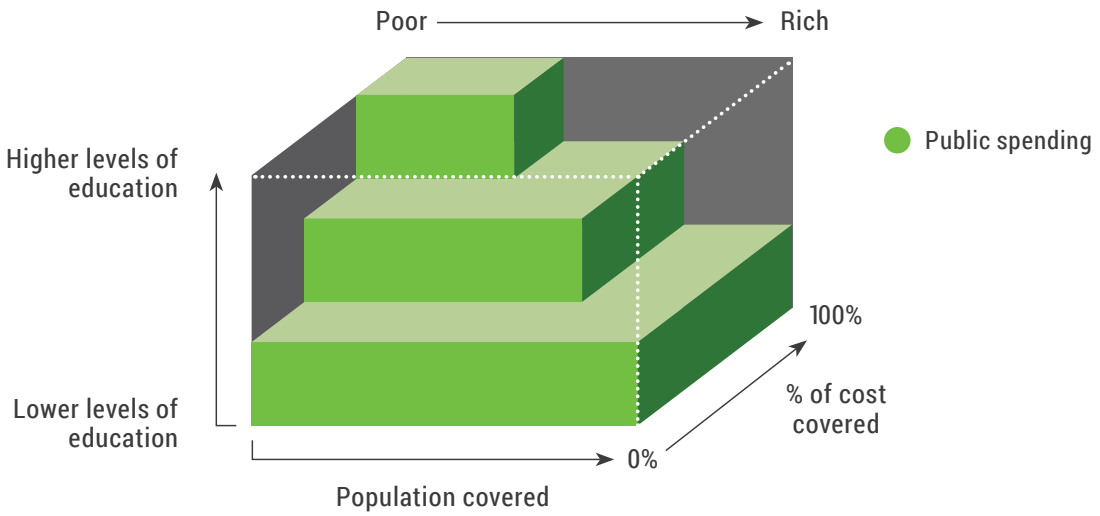
groups, decision-makers be guided by the principle of progressive universalism, which prioritizes public spending for the poor and the earlier years where social returns are highest, minimizing household spending on basic education by the poor.[28] It strongly favours allocating public funding to the lower levels of the education ladder, which include pre-primary, primary, and lower secondary, and, within these parameters, to those left behind because of poverty, disability and social disadvantage. Allocations to higher levels like tertiary education should gradually increase as coverage comes close to universal at lower levels. During the gradual expansion of public funding to cover higher levels of education for all, financing for the poorest should be prioritized to ensure that they are not left out of opportunities to pursue upper secondary and tertiary education. The concept of progressive universalism is useful and in contrast to the reality: education spending in most countries today strongly favours the wealthiest and is usually skewed toward higher levels of education. See Figure 4 below for a stylized example of a country on the way to achieving free basic and secondary education using the principle of progressive universalism.

Guided by the principle of progressive universalism, governments can consider a number of strategies and options to fully finance secondary education over time.

1. **Expanding the resource base.** A basic strategy to avoid difficult trade-offs is making sure the budget envelop is as large as possible to cover financing needs, or "filling the box" in Figure 4 as much as possible. To increase total financing for secondary education, a number of strategies can be pursued:

   - **Increasing education budgets by broadening the tax base and/or the share allocated to education.** Domestic tax resources will remain countries' main sources of revenue, and therefore, countries' main source of financing for secondary education. Increasing domestic resources by broadening the tax base or introducing new taxes, all the while being careful not to create an additional burden on the poor, will be an important part of the response. Clamping down on tax avoidance and tax evasion could also

Figure 4 Progressive universalism in education: A stylized example



Source: Education Commission. 2016. Learning Generation. Pg. 90.

contribute to this objective. Some countries have also successfully used soft earmarking for human development to help gain acceptance of unpopular tax increases.[29,30] Opportunities to reallocate resources from other sectors to education also exist and could be part of a win-win strategy. For example, taxing natural resources or removing subsidies—such as fuel subsidies—could free up resources which could then be targeted, at least in part, toward secondary education.

- **Expanding official development assistance (ODA) spent on secondary education**. Expanding ODA to secondary education could be achieved by either enlarging the total envelop or re-allocating within the existing envelop. Given current pressure on overall ODA budgets, developing instruments that can leverage scarce ODA and mobilize additional financing for education will also be important, for example blended finance and incentives to crowd-in financing from other actors (matching schemes or tax incentives). The soon-to-be launched International Finance Facility for Education (IFFEd)[31] is a step in this direction.

- **Harnessing private sector financing in targeted areas.** More than half of ODA at secondary level is currently spent in TVET, a disproportionate amount relative to the small share of students enrolled.[32] This is an obvious area where private sector actors who stand to gain from TVET could play a more substantial role, thus freeing up ODA to invest in general secondary education. In some areas, the private sector may have a strong comparative advantage in the ability to take on higher risk investments which struggle to attract financing (e.g. innovation; capacity building) and may also be able to provide technical assistance and know-how towards more effective and efficient TVET. In countries where demand for secondary education cannot be met by existing infrastructure, one response has been public-private partnerships: the state provides funding in support of new non-state schools through capitation grants which lead to increased secondary education access.[33]

2. **Improving allocation of financing prioritizing the poor**. Financing recommendations should be in line with the programming principles of this guidance: progressive universalism, equity- and gender-based approaches, system coherence, and cross-sectoral collaboration. Existing funding is not always prioritized in a way that leads to progressive universalism.

   - **Prioritizing secondary education as part of progressive expansion of education**. Evidence has shown that domestic public education expenditure beyond primary education is often regressive, meaning that children from the wealthiest households receive more than those from the poorest households.[34] In some countries, secondary education tends to receive less funding than tertiary education.[35] Applying the principle of progressive universalism to international public financing (ODA) could also be pursued. A significant share of ODA is currently being spent on tertiary education. ODA to secondary education could be increased by re-allocating funding from higher education to secondary education. Lower secondary is part of basic education and should be expanded as a priority alongside pre-primary and primary. Expansion of upper secondary should occur gradually and financing should be targeted at the poorest adolescents as universality is reached at lower levels. This strategy will allow funding to reach more of the population and ensure greater access for the marginalized.

   - **Using appropriate financing formulas to allocate scarce public financing within secondary education while prioritizing equity**. The introduction of fee-free secondary education has not necessarily been accompanied by increased access for the poorest. **Equity based funding formulas** can offer a way of targeting public education resources to the poorest. For example, South Africa used these formulas to abolish fees in primary and secondary education for the poorest public-school students. The phasing out was gradual and gave priority to schools in poorer areas before expanding to schools in better-off areas.[36] To increase the

equity of these formulas, efforts should be made to ensure that teacher salaries are considered, that schools have greater autonomy over how resources are spent, and that funding information to schools is clear and timely.[37]

- **Alleviating indirect cost barriers through targeted measures.** Indirect costs that fall onto households still represent a large barrier to secondary education access and completion and are higher in secondary education relative to primary education. The provision of progressive **cash transfers** (conditional or non-conditional) that factor in poverty measures have proven to be effective in encouraging secondary students to attend and stay in school, even though the effects on learning outcomes are less clear.[38] Targeting girls in particular can reduce their greater drop-out rates. **Bursaries and needs-based scholarships**, which can be designed to target specific marginalized groups, are also effective means of increasing enrolment and improving learning outcomes. For instance, a study in Ghana found that students who were awarded a scholarship were more likely to complete secondary school and scored higher in reading and math tests.[39] Funds for these instruments can be provided by public or private entities.

3. **Freeing up existing resources with efficiency gains.** In addition to new financial resources and allocating resources in line with principles of progressive universalism, efficiency gains can also free up resources for secondary education, and evidence shows that the education workforce is a key area for efficiency gains. Further work is needed to identify potential areas for greater efficiencies in secondary education. These could include system inefficiencies like class repetition, dropout rates, inadequate curricula or poor financial management practices. An analysis of alternative models of deploying the education workforce and delivering mechanisms for secondary education would be required.

- **Prioritizing and improving the efficiency of education workforce investments**. Quality of secondary education and learning is uneven, and students from marginalized groups tend to perform less well than wealthier students. Increasing the efficiency of the education workforce spending is critical, as salaries represent the largest share of the education budget. Increasing efficiencies could potentially be achieved through better deployment of the current workforce, reducing absenteeism through improved school management systems, and task shifting, ensuring that teacher time on administrative tasks is reduced in order to prioritize instructional time.[40]

- **Investing in innovative ways of delivering education.** Multiple and Flexible Pathways to delivering education have been emerging around the world, particularly in the context of health crises, conflict and natural disasters. This includes digital learning models, but also accelerated learning, blended learning, catch-up programmes, and individualized learning. The effectiveness and relative costs of such approaches should be further analysed as an additional way of making secondary education available, including for the most marginalized, potentially at lower cost. A number of past initiatives for the secondary level have been documented:

  - Mexico's *Telesecundaria* educational television programme is considered a sustained success. Since its creation in 1968, *Telesecundaria* offers a way to deliver lower-secondary education in remote rural areas through television programmes and self-study materials with the support of one teacher per classroom covering all subjects.[41] Past evaluations have found the programme to be as effective as traditional secondary schools, with lower dropout rates and comparable (only slightly lower) exam results for a cost similar to conventional secondary education.[42] *Telesecundaria* continues to serve a large number of secondary level students in Mexico and has been expanded to other countries.

» Sistema de Aprendizaje Tutorial (SAT) in Central America provides alternative lower and upper-secondary education to rural youth, integrating a learning-by-doing methodology so that many can continue agricultural pursuits within a curriculum relevant to agricultural innovation and rural community development. Evaluations found that children in SAT villages in Honduras had test scores 45 per cent better than children in neighbouring rural government schools, and mixed methods qualitative studies suggest that SAT students also had a stronger sense of social responsibility for their community and enhanced empowerment among females.

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Cost efficiency and effectiveness

Identify ways to improve cost-efficiency and effectiveness within education sub-sectors (primary, lower secondary, general upper secondary, TVET)

Even in contexts where there is little additional funding for education, programming can consider using education resources more cost-effectively. Existing education investments are typically not used efficiently, especially within primary education, and these inefficiencies drive much of the of adolescent overage enrolment phenomenon in primary education. Late enrolment to primary and high repetition rates then go on to contribute to preventing on-time progression through primary to lower secondary education.[43] Cutting wastes in spending like addressing teacher absenteeism and improving learning time by increasing time on task are effective and low-cost ways to improve learning outcomes.[44]

Some cost inefficiencies are specific to secondary education. The specialized nature of secondary education means that secondary schools are more expensive to run. They typically have higher teacher salaries, and due to the need for subject-specific teachers, issues of uneven teacher deployment are exacerbated compared to primary. The diversity of secondary education models can mean higher cost implications (such as boarding schools or TVET). For example, in rural areas, establishing multi-grade classrooms or reducing the number of subject-specialist teachers can reduce the cost of providing quality secondary education.

Lastly, improving existing education spending efficiency can be achieved through better alignment between secondary education (including TVET) and the needs of the labour market.[45] Evidence shows TVET participation can have high returns for individuals. However, TVET is expensive compared to mainstream upper secondary education, and given the competing priorities for education investments, TVET expansion should be considered carefully. UNICEF can work in partnership with other stakeholders in the school-to-work transition space to both improve the quality and relevance of existing TVET programme and improve the breadth and quality of skills development within general secondary education.

Programming considerations: Improve targeting of spending for secondary education towards the most marginalized, including multiple flexible pathways and non-formal education

Equitable financing means that education investments target and reach disadvantaged children and adolescents. There is a very real risk that investments to improve the quality of secondary education (particularly upper secondary) will reinforce existing inequities in society, especially in countries where most marginalized adolescents never reach lower secondary. Data analysis is crucial to understand where adolescents, especially disadvantaged groups, are within the system or if they are out of school. Spending on secondary education in some sub-Saharan African countries continues to be "pro-rich," and in some countries, a two-tiered system within secondary leads to gaps in quality as well as access.[46] For example, schools in rural areas may have a higher share of marginalized students but are under-resourced and under-staffed compared to urban schools with wealthier students. Funding schemes which reallocate existing resources to support worse off schools with more and better qualified teachers as well as suitable infrastructure could have great benefits to closing the equity gap.[47]

The direct and indirect costs of education are the main drivers of exclusion to education globally. Data on household expenditure on education in 15 African countries show the highest out-of-pocket costs for lower and especially upper secondary education.[48] Research in African countries has shown that making lower secondary fee-free has not resulted in an increase in access to education for the most marginalized adolescents, and poor households still bear many indirect costs to education.[49] There is evidence that cash incentives (both universal, and conditional on school attendance) can have a positive impact on secondary school enrolment and completion, especially for girls. This is clearly the case in an analysis of the impact of scholarships in Ghana (see Box 1). Using an approach to

appropriately target the most marginalized households may be an effective way to counter the effect of poverty on school enrolment.[50]

Lastly, an equity approach to financing would also mean that education investment include **non-formal education and multiple flexible pathways** for out-of-school adolescents. The wide variety of non-formal education and multiple flexible pathways to secondary education have different cost implications linked to their duration, and complexity, among other factors. Within a limited budget envelope, UNICEF can provide technical assistance in modelling, evaluating and costing promising programmes and support the inclusion of non-formal education and multiple flexible pathways within the broader education sector plan and strategy discussions. For advocacy purposes, UNICEF has contributed to investment cases to highlight the cost of non-enrolment for the future of a country.[51]

Consider how education expenditure is allocated across education levels

A **system-wide approach** to equitable financing for secondary education means considering how to expand enrolment across levels in a way that does not reduce the quality of education, as both are necessary to achieve SDG4. While careful not to shift funds away from lower levels of education to upper secondary and tertiary education, programming can analyse the impact of redistributing expenditure on tertiary education towards lower levels, such as formal secondary education, non-formal education and multiple and flexible pathways and for adolescents.

In countries close to universalization of primary and lower secondary, such as some countries in Eastern Europe, Central Asia, East Asia Pacific and Latin America and the Caribbean, reaching the "last mile" children (those who live in remote or sparsely populated areas) may be more costly using traditional schooling. In these cases, alternative delivery models of formal education, which reduce unit costs, can be considered, such as those in Brazil (Box 8) or Honduras (Box 10). Alternatively, programmatic efforts to prevent dropout on the first place—rather than intervention or compensation efforts to bring adolescents back into school—are the most cost effective.[52]

Advocate for increased funds for secondary education within overall government expenditure and from external sources

Taking a wider perspective, the education sector is but one of the competing priorities in the social services sector. In most low-income countries, education is underfunded, even taking into consideration potential cost efficiencies and reallocations. Here, a **cross-sectoral approach** can be useful to advocate for more efficient spending on education and other social sectors to achieve results for adolescents. This includes working closely with **social policy** makers to analyse education budgets, developing cases for investment in education, and coordinating with ministries of finance. This approach considers how schools can be sites to deliver a range of services more effectively to children, such as **health, child protection** and **adolescent development** services. Closer coordination with these sectors and colleagues can help identify out-of-school children and those at risk of dropping out, and by working together, can address multiple barriers to school access (see the case of Jordan in Box 7).[53] While government funding is the most important source of sustainable funding for education services, UNICEF can also play a role to attract greater funds to support secondary education through its advocacy, partnerships and private sector engagement.

Box 1 Returning to secondary school in Ghana[53]

Policy issue: While primary school completion rates have increased dramatically across Sub-Saharan Africa in recent years, secondary school enrolment remains low. In 2014, the region's secondary net enrolment ratio was the lowest in the world at 33 per cent.[55] Although there is an increasing focus on expanding access to secondary education in the region, there are still open questions about the benefits of secondary education relative to the high associated costs.

The role of primary education as an important driver of growth and development has been well studied and understood, but more evidence is needed to understand the benefits of secondary education. Secondary education could have a much larger impact than primary education on long-term earnings, health, fertility, gender equality, and civic and political participation. However, expanding secondary education is also significantly more expensive than providing free primary education, and there is potentially a much larger opportunity cost to families in terms of taking students out of the workforce. JPAL examined the impacts of lowering the financial barriers to secondary school enrolment and the returns to secondary education on an array of long-term outcomes in Ghana.

The impact of expanding secondary schooling is a topic of national concern in Ghana. In recent years, the two major political parties have debated the merits and feasibility of implementing universal free upper secondary school.

Context of the evaluation: In Ghana, like in many countries in Sub-Saharan Africa, education is free through ninth grade, the last year of lower secondary school (junior high school), and enrolment rates are high up to that point. After ninth grade, enrolment drops sharply, a pattern seen across the continent. Around 40 per cent of students who entered lower secondary school pass the exam necessary to gain admission to upper secondary (senior high school). For those admitted, the costs of upper secondary school are substantial: In 2011, tuition fees for non-boarding upper secondary school students were around 500 Ghanaian cedis (US$336) per year, equivalent to about 20 per cent of GDP per capita at that time.

Details of the intervention: Researchers evaluated the impact of full, need-based scholarships on secondary school enrolment and the returns to secondary education in Ghana over more than ten years. In fall 2008, they identified 2,064 students who had earned admission into an academic or vocational track at a public upper secondary school but had not enrolled due to financial constraints and enrolled them in a longitudinal study. Among the students, 682 students were selected by lottery to receive a scholarship that covered 100 per cent of the tuition and fees for four years at a local public school. The scholarships were announced four months into the 2008-2009 academic year; over 75 per cent of scholarship recipients enrolled in secondary school that year.

At the beginning of the study, the research team surveyed all participating youth and their guardians. At the time, the youth ranged between 13 and 25 years old, with an average age of 17 years. Study participant, regardless of scholarship status, were given a cell phone and mobile credit, and once a year, researchers attempted to call all participants in order to update their contact information and ask for their current school status and location. If participants could not be reached over the phone, researchers attempted to find them by visiting their home area.

Box 1 Returning to secondary school in Ghana (cont.)

Researchers conducted an in-person, in-depth follow-up survey in 2013 to measure participants' educational attainment, cognitive skills, employment status and earnings, health, marriage status and fertility, time and risk preferences, civic participation, and other outcomes. In 2015 and 2016, they conducted shorter phone surveys to update this information. They will continue to track the study groups into 2020 and beyond.

Results and policy lessons: Results indicate that school fees, rather than the opportunity cost of being in school, were the major barrier to educational attainment for youth in the study. Removing that barrier produced large gains in educational attainment, skills, knowledge, and preventative health behaviours. Women also delayed childbirth and marriage relative to their peers who were not offered scholarships. As of 2016, scholarship recipients who enrolled in academic tracks were more likely to subsequently enrol in tertiary education, while winners who enrolled in vocational tracks had higher earnings than non-recipients did.

Scholarship use and educational attainment: Seventy-five per cent of scholarship winners enrolled in secondary school immediately upon receiving the scholarship, almost four times the enrolment rate in the comparison group. By 2016, 74 per cent of the scholarship recipients had completed senior high school compared to 47 per cent of the non-recipients. Students with different initial performance levels were all more likely to enrol, and even students who had barely gained admission overwhelmingly used the scholarship.

Skills and knowledge: Scholarship recipients scored 0.15 standard deviations higher on a cognitive skills test administered by the researchers than non-recipients. Scholarship recipients were also more likely to know how to use the internet and to be aware of issues of national and international importance. Female scholarship recipients were more likely to have a bank account, an email account, and a social media account.

Fertility: Women who were granted scholarships married later and delayed childbirth, particularly unwanted pregnancies, relative to women who did not receive scholarships. By 2016, 25 per cent of female scholarship recipients had lived with a partner compared to 34 per cent of non-recipients. Forty-seven per cent of women offered scholarships had been pregnant at least once, while 58 per cent in the comparison group had. This reduction was concentrated among unwanted pregnancies: 45 per cent of female scholarship recipients reported an unwanted first pregnancy compared to 57 per cent of non-recipients.

Health behaviour: Scholarship recipients reported less risky sexual behaviour and exposure to STIs. Winners also reported more preventive health behaviours such as handwashing with soap and the use of bed nets and mosquito repellent.

Tertiary education: By 2016, 12 per cent of scholarships recipients had enrolled in tertiary education compared to 9 per cent of non-recipient, an increase concentrated among female scholarship recipients and those admitted to academic tracks.

Employment and earnings: Since scholarship recipients were still more likely to be enrolled in tertiary education by 2016, it is too early to definitively report long-term impacts on labour market outcomes. However, results suggest that scholarship recipients had higher earnings on average: 61 per cent of scholarship recipients reported any earnings in the past month compared to 56 per cent of non-recipients. These effects are concentrated among those admitted to vocational tracks, for whom there were no tertiary enrolment impacts.

Box 1 Returning to secondary school in Ghana (cont.)

Consistent with the challenging macroeconomic environment in Ghana at the time, many youths in the sample did not yet have jobs as of the last follow-up (2016). Among unemployed youth, 46 per cent of scholarship recipients reported actively searching for a job compared to 32 per cent of non-recipients.

Among students admitted to vocational tracks—those for whom the scholarships had no impact on tertiary enrolment—recipients had earned 26 Ghanaian cedi more in the past month than non-recipients, a 24 per cent increase. This increase was accounted for by an increased probability of being employed rather than higher wages per hour. For scholarship recipients admitted to academic tracks—16 per cent of whom enrolled in tertiary education—there were not yet any discernible impacts on labour market participation or earnings as of 2016.

Researchers are currently analysing results of additional outcomes, such as civic participation, levels of trust, respect for authority, and attitudes towards religion. With support from the National Institutes of Health (NIH), they are also collecting information on the children of study participants. Through a grant funded by the Post-Primary Education (PPE) Initiative, researchers will follow up on participants until they reach the age of at least 30 to shed light on the long-term impact of reducing financial barriers to secondary education on a wide range of outcomes, from income, to health and fertility decisions, to civic participation.

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3. Programme design and implementation

This section will first present **key programming principles** that underlie UNICEF's approach to secondary education and that are relevant across all development and humanitarian contexts. Next, specific programmatic interventions for **education system strengthening** that support adolescents who are in school but at risk of dropping out or not learning will be addressed. Finally, targeted programmatic recommendations of **alternative, non-formal education options** for out-of-school adolescents will be explored, options that allow out-of-school adolescent to learn relevant knowledge and skills for learning, employment, personal empowerment and active citizenship to either re-enter the formal education system or to improve their future workplace outcomes.

UNICEF key programming principles

Adopt a gender-responsive, equity focused approach

SDG 4 demands twelve years of inclusive and equitable quality education and the promotion of lifelong learning opportunities for all. Target 4.1 specifies that all children should have opportunities to complete primary and secondary education, including the most marginalized adolescents in low- and middle-income countries who have not had access to education.

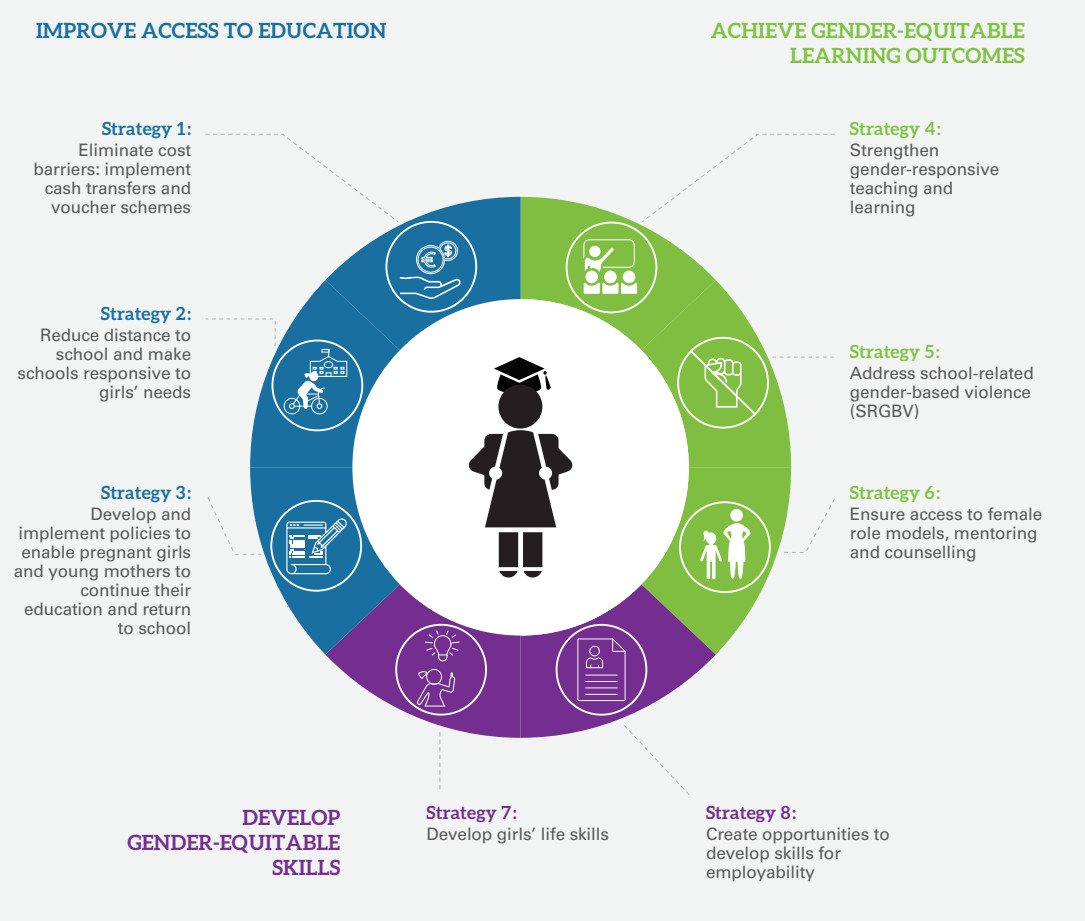
Countries with large numbers of adolescents who do not complete primary and who are excluded from secondary education provide an impetus to re-envision how primary and secondary education is organized and delivered. For example, combined cycles of primary and lower secondary and flexible delivery are adjustments that can serve the needs of the most marginalized adolescents. Many countries have already taken this route, expanding opportunities for the most marginalized to access lower secondary education.[56] Additional support such as cash transfers for poor adolescents can further reinforce opportunities for marginalized adolescents to complete a full cycle of primary and lower secondary education.

In many lower and lower middle-income countries, secondary education, especially general upper secondary, was historically reserved for the more advantaged in society—children from largely urban, wealthier households—as a pathway to higher education.[57] Therefore, programming that expands the access to and quality of lower and upper secondary education should re-examine systemic inequities and prioritize the needs of the most marginalized adolescent girls and boys to ensure that they have a fair chance in life. A cross-sectoral approach can help respond to causes of inequity, including gender barriers, making it more possible to address the multiple barriers facing marginalized adolescents. UNICEF, in alignment with its Gender Action Plan, should programme towards the goal of gender-responsive secondary education, including girls' secondary education, through targeted approaches that have the potential to transform discriminatory gender norms in the education system and in society at large.

There are many evidence-based strategies to improve education for adolescent girls (see Figure 5), and robust evidence points out the benefits of gender-responsive secondary education for communities as a whole:

- girls who reach secondary school are more likely than peers who have only reached primary school to both survive childbirth and have children who survive past age five;
- it is estimated that if all girls had a secondary education in Sub-Saharan Africa and South and West Asia, 64 per cent fewer girls would get married as children;
- gender equitable education for adolescents leads to reduction in SRGBV, child marriage, and FGM/C;
- gender equitable education systems (including gender-responsive pedagogies) lead to the development of essential life skills such as self-confidence and communication, as well as self-esteem, self-efficacy and resilience in adolescent girls;

Figure 5 Evidence-based strategies to improve education for adolescent girls[57]



- there is a strong association between education, particularly secondary education, and changing masculinities; this has positive effects for boys and communities, as it decreases the likelihood of boys' disengagement in school and engagement in risky and violent behaviors, including violence against women.

A secondary education free of discriminatory gender norms and stereotypes has positive effects on equitable learning and education outcomes for both girls and boys (e.g. boys as good readers and girls as competent in STEM). It also prevents schools from channeling girls and boys towards subjects seen as useful for their future role (e.g. secretarial studies for girls and accounting for boys), perpetuating skills and pay gaps in the work force (e.g. boys steered towards subjects that may lead to more lucrative careers in later life). The Meena Manch collectives show how a systems approach for gender equity and girls' empowerment in secondary schools plays out in India (see Box 2).

Box 2 Meena Manch in India: Creating gender-responsive and empowering secondary schools

The context and challenge: Despite improvements in children's enrolment, learning and retention in schools in Rajasthan, schools do not adequately address gender inequalities, which can severely affect girls' retention and completion of secondary education, aspirations for a career, and their confidence and mind-set as individuals. There are many gendered barriers in and outside of schools that perpetuate gender inequality and prevent girls' empowerment, such as a lack of safety and mobility; lack of freedom to express opinions; limited access to information, knowledge and technology; excessive time burdens for domestic chores and family responsibilities; and damaging masculine and feminine ideals and expectations. From an equity perspective, additional support to girls is crucial to ensure positive learning outcomes and empowerment. The period of early adolescence (10-14 years) is also critical for girls, as this is when gender norms and gendered expectations are solidified, which can severely limit their life and career opportunities as well as future prospects. Supporting girls to be aware of their rights, review and critique gender norms, take leadership roles and explore future possibilities through education, is essential to prompt meaningful changes in their current status and empowerment.

Response: To improve girls' participation, learning and completion, a systems approach for gender equity and girls' empowerment was designed and implemented.

Establishment of Student Clubs for Girls: *Meena Manch* at the elementary level and *Gargi Manch* at the secondary level are girls-only collectives that provide a space for girls to build their capacity and work together to raise awareness about and address issues that affect their lives. Through these clubs, girls are supported to engage in skills-based activities to improve personal empowerment, social and life skills; improve response mechanisms to address violence and harassment; and build dialogue and awareness around issues such as child rights, violence, menstrual hygiene, child marriage and regular attendance.

School-level systems strengthening: Teacher training programmes were expanded to include gender, life skills and child rights. Teachers were sensitized on child protection and child rights issues using a gender lens, and teacher capabilities to identify and respond to problems specific to girls were enhanced. A pool of teachers and school leaders was created to initiate dialogue on gender in education and its impact on the lives of children. Finally, the initiative strengthened school-based processes for reporting violence and created processes where they were missing.

District-level systems strengthening: To support and sustain the school level interventions, district level standards and guidelines were developed, including allocating and monitoring budgets for schools and training programmes. Gender and outcome indicators were integrated into the robust state monitoring mechanism, strengthening internal assessment systems and improving partnerships to support and mentor the girls' collectives towards creating a gender sensitive learning environment in all schools.

UNICEF's Added Value: The clubs use of "Meena"— a nine-year-old fictional girl who overcomes all obstacles to go to school and to change perceptions that hamper the survival, protection and development of girls—was developed by UNICEF and adapted under the Sarva Shiksha Abhiyan (SSA), the Government's flagship education programme.

Results: This intervention has reached more than 380,000 girls across 33 districts of Rajasthan. Results have been seen at several different levels of the education system. There is a noted improvement in girls' attendance rates and participation in education, partly attributed to the active peer and teacher support systems for girls' completion of elementary education. In addition, the process/input indicators that have been incorporated into the monitoring system create data for evidence-based programme planning and implementation.

Invest early in the most marginalized through progressive universalism of education[59]

UNICEF can support governments in developing spending formulas that lead to balanced spending across different levels of education and population groups, prioritizing the most marginalized children and adolescents. Prioritizing lower levels is important because many adolescents, particularly the most marginalized, are still enrolled as overage students in primary or lower secondary education.

Data on the share of government expenditure on education by level shows that low income countries spend very little on pre-primary education, and about the same proportion as high-income countries on tertiary education, even though enrolment at that level is low and largely made up of young people from wealthier households.[60] Even in contexts where public funds have been prioritized to improve access and quality for pre-primary and primary education, **targeted investments in secondary education are necessary to meet the workforce demands for pre-primary education and primary education; therefore, there is a global need to both significantly increase the number of secondary graduates and to make sure they develop foundational and transferable skills.**

UNICEF can advise governments to equitably expand the secondary education system without diverting resources away from primary/pre-primary. Unless disadvantaged adolescents have supports to access secondary education, public investments at this level will be regressive and the poorest will continue to be excluded from the benefits in health and livelihood outcomes afforded by secondary education.

UNICEF can support governments to take advantage of new technologies and education innovations to meet the needs of the most marginalized adolescents by channeling greater investments to t adolescents who need it the most, including refugee children and youth. UNHCR analyzed factors that impact the success of refugee youth transitioning to secondary education across five African countries (see Box 3).

The fulfillment of some SDG targets depend on upper secondary graduates, whether expanding the pre-primary sub-sector (4.2) or health care workforce (3.C). Progressive universalism impacts how and to what intensity UNICEF engages in secondary education depending on the context. For example, for countries where most adolescents are out of school, programming may focus on learning and holistic skills development for the most marginalized, or it may emphasize investments in early learning combined with lower secondary education for marginalized groups rather than public funds investment in upper secondary education.

Support learning which includes both subject knowledge and developing a breadth of skills.

UNICEF will continue to support governments and partners to transform the educational experience into a child-centered approach that delivers relevant subject knowledge (especially important in secondary education) in a way which builds an array of skills. These skills are categorized into four types: foundational skills, transferable skills, job-specific skills, and digital skills. They are key in helping adolescents to become successful life-long learners, find productive work, make decisions that affect their lives, and actively engage in their communities. *UNICEF's Global Framework on Transferable Skills* articulates this vision through the four categories of skills, each important for adolescents. Transferable skills, however, are at the centre, considered the "magic glue" that develop and make use of the three other types of skills (see Figure 6).

Foundational skills consist of literacy and numeracy, essential skills regardless of employment aspirations. Foundational skills are key for further learning, productive employment and civic engagement. Digital skills are increasingly being considered as foundational and include the ability to use technologies as well as develop the social and emotional skills needed to safely navigate digital space.

Box 3 UNHCR success factors for transition to secondary education for refugee youth

The context: While there is a substantial knowledge base pertaining to primary-level education, there is little data on how to support refugee youth as they progress through the system. Older children and youth have differing developmental and psychosocial needs and life trajectories, and as such deserve their own attention in research. Very few studies incorporate refugee youth's voices on the barriers as well as supportive measures, which impact the likelihood of their transition to secondary education.

Response: UNHCR conducted a study across five countries to fill this gap by asking refugee youth and key stakeholders what works to boost transition rates from primary to secondary schooling in Uganda, Ethiopia, Kenya, Egypt and Malaysia.

Findings: Despite inclusion-related policies at the secondary level for refugee youth, including full access to public secondary schools in Uganda and Ethiopia, demand outweighs supply across countries. We can simultaneously accelerate refugee inclusion in government schools and investments in holistic secondary education infrastructure by building on promising Education Sector Plans (Kenya, Uganda, Ethiopia), extending capitation grants to refugee-hosting secondary schools and adopting an 'area approach' which benefits both local and refugee students.

To support successful transition, we must strengthen the links between primary and secondary schools. Emerging practices ensure the use of primary spaces for secondary instruction while waiting for new infrastructure (as in Kakuma, Kenya) and match primary graduates (particularly those with disabilities) with receiving secondary schools. In the domain of teaching and learning, we can consider Accelerated Education Programmes (AEPs) at the secondary as well as primary level while exploring their sustainability and effectiveness and ensuring that they are implemented by governments at scale. The role of teachers is also central to transition. By promoting female leadership and teacher well-being in secondary education, we can encourage girls to attend and remain in school. We can also support the translation and equation of refugee teachers' qualifications to motivate refugee students to attend secondary.

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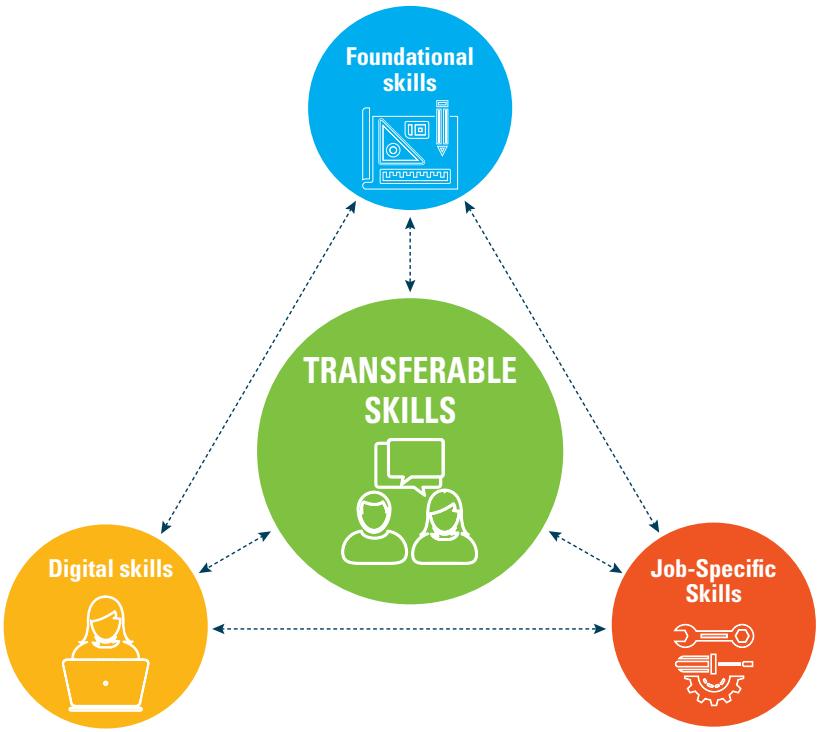
Figure 6 Transferable skills are necessary for developing foundational, digital and job-specific skills



Transferable skills, such as creativity, communication and problem solving are needed by all. Such skills enable young people to be life-long learners and to adapt to rapid changes in the economy and society, thereby improve their chances of finding and retaining work. The UNICEF Strategic plan sets out twelve core and interrelated skills for learning, employability, active citizenship and empowerment. These skills are: creativity, critical thinking, problem-solving, cooperation, negotiation, decision-making, self-management, resilience, communication, respect for diversity, empathy and participation. These present an excellent starting point from which governments and education stakeholders can contextualize and strengthen holistic and lifelong national approaches to skill development, adapting to national understanding and contexts.

Transferable skills can be categorized according to the following interrelated categories:

- **Cognitive Skills** have to do with "thinking" and include the ability to focus, problem-solve, make informed choices, and set plans and goals;
- **Social Skills** have to do with interaction with others, including the ability to communicate, collaborate, and negotiate;
- **Socio-Emotional Skills** have to do with understanding and regulating one's own emotions, coping with stress, understanding the emotions of others, and the ability to empathize with others.

UNICEF supports national governments and partners to systematically embed a breadth of transferable skills in their curricula, at scale, across the life course and through multiple flexible learning pathways: formal, non-formal, on the job and community based for all learners.[61] Flexible, multiple pathways provide learners with more opportunities to receive relevant education that fits their needs.

Job specific skills (also known as technical and vocational) are associated with one or more occupations. Some have very narrow application in a single economic sector, such as bricklayers in construction industry, while others are more mobile across sectors, such as accountants. The wider the application of a skillset, the more flexible and responsive the holder of these skills can be in a changing labour market. Job-specific skills are particularly important for older adolescents who are transitioning to the labour market. In line with Strategic Plan (2018-2021), UNICEF aims to provide marginalized adolescent boys and girls aged 15-19 with greater opportunities for skills training and education, understanding that ensuring their success in such programmes may require access to social protection (finance) and remedial support to strengthen literacy and numeracy skills.

Digital Skills are necessary for children and adolescent girls and boys to participate positively, safely, and effectively on the internet and other forms of media. Given that women in least developed countries are significantly less likely to have access to internet, these programmes also consider how to increase access to digital skills and jobs for adolescent girls and young women.

Programming on secondary education should always reinforce foundational and transferable skills. Secondary education represents an important opportunity to positively influence developmental trajectories of adolescents and counteract adverse childhood experiences. Adolescence is a crucial period when girls and boys define their individual identities and make important decisions towards different paths in life. The Global Framework on Transferable Skills provides a more in-depth discussion of the key considerations for successful programming and technical advice to governments and partners.

Programmatic responses for out-of-school adolescents

To achieve the vision for secondary education, there is no "one size fits all" recommendation for country office programming. However, there are practical approaches for country offices to identify and prioritize relevant programming to reach the most marginalized adolescents.

The first consideration to target programming for out-of-school adolescents is to take stock of the numbers that are available: *What is the share of adolescents in and out of school? What is the share of marginalized adolescents in and out of school?* These numbers are essential to identify the entry points to reach adolescents excluded from the education system. The second consideration to target programming for out-of-school adolescents is to include age-appropriate accelerated learning programmes and flexible modalities of secondary education, including in humanitarian contexts. South Sudan provides an example of alternative secondary education for adolescents affected by war (see Box 4) and in Turkey, UNICEF and partners offer accelerated secondary education for migrant and refugee youth (see Box 5).

Box 4 South Sudan: Secondary education for out-of-school adolescents affected by war

The civil war in South Sudan has resulted in interrupted learning for thousands of children. The Government of South Sudan has launched an alternative education system for more than 165,000 students (mostly ages 12-18). This alternative system includes an Accelerated Learning Programme for primary and lower secondary, compressing the eight years of basic education into an accelerated timeline reduced to four years of learning. The ALP gives adolescents an opportunity to catch up on missed education in a short period; completing the curriculum faster than in traditional education and helps them to re-enter the regular secondary school system.

Box 5 Turkey[61]: Accelerated secondary education for migrant and refugee adolescents

Turkey hosts the largest refugee population in the world—4 million—largely comprised of Syrians fleeing civil war and including 1.6 million Syrian children. While over 600,000 Syrian children are in school, the remaining 400,000 are not. Out-of-school adolescents are especially vulnerable to discrimination, child labour and child marriage. The educational response takes a multi-track approach to address the needs of out-of-school children and also invests in improved school access, dropout prevention, and inclusion of refugee children into the formal education system. With the Ministry of National Education (MoNE) and other partners, UNICEF Turkey provides two tracks of **Accelerated Learning Programmes**, each spanning eight months. One ALP covers the primary school equivalency and a second level covers lower secondary school equivalency, covering the essential curriculum content in addition to Turkish language courses to support re-integration into the formal education system. At the end of the ALP, students are evaluated, assessed and receive equivalency certificates accredited by MoNE to enter into the formal education system in Turkey.

Table 5 Mapping template for non-formal education pathways for adolescents[62]

Mapping dimension	Key issues to consider
Target groups	Age, educational attainment and other key characteristics of the target groups (marginalised groups, etc.).
Programme objectives and design	Objectives (focus on re-engagement or re-integration into formal schools, on employability for transition to labour market, etc.). Programme design: length, location, eligibility criteria.
Teaching and learning approaches	Content of curriculum; integration of foundational, transferable and job-specific skills; degree of flexibility; pedagogy; assessment; learning environment; profile of teachers and facilitators.
Support for learning and student well-being	Learner-needs assessment; personal development; support for personal and social wellbeing of students, linkages to services outside education.
Certification and pathways	Validation, recognition and certification issues; bridges to compulsory and non-compulsory education pathways; links to the national qualification framework.
Governance and funding structure	Responsibilities and accountability lines; budgeting; accreditation bodies; roles of line ministries/ agencies/other education stakeholders; involvement of young people in governance; involvement of parents and private sector.
Legislation and policy frameworks	Linkages between the programme and national education, youth, employment, gender, inclusion and lifelong learning agendas.
Programme quality and effectiveness	Number and profile of adolescents participated; learning outcomes; employability skills and improved workplace outcomes; levels of satisfaction and self-esteem of users; perspectives of education professionals and employers; cost-effectiveness and dropout rate.
Supervision and quality assurance	Standards; supervision and inspection; self-evaluation; development planning.
Capacity development	Managers; education and support staff; volunteers and mentors.

Mapping Multiple Flexible Pathways (MFPs) in the country

A useful first step for country offices is to conduct a mapping of national alternative formal and non-formal education policies and programmes. Despite the immense needs for such programmes, MFPs are typically not as well developed and coordinated as the traditional modes of delivery within the formal education system. Given the range of programme types, target groups, and objectives, establishing a baseline of MFPs currently on offer in the country is the first task.

Three useful resources exist to map and understand the non-formal education sub-sector:

- *Improving Education Participation: Policy and practice pointers for enrolling all children and adolescents in school and preventing dropout,* developed by UNICEF ECARO, includes a template to unpack the various dimensions of each major programme (See Table 5).
- A one-page diagram/tool *Accelerated Education Decision Tree*[63] and *Accelerated Education Programme Checklist,*[64] developed by the Inter-Agency Network for Education in Emergencies (INEE), facilitates decisions about when to use accelerated education programming.
- *Education Sector Analysis Methodological Guidelines Volumes 2,* developed by UNESCO-IIEP, World Bank and UNICEF, presents a comprehensive methodology to better understand both TVET and non-formal education.[65] The analysis proposed for Education Sector Analyses includes four sub-components: the national definition of non-formal education and sub-sector organisation; needs and beneficiaries of NFE; cost and financing; and results and quality and relevance indicators.

In Tanzania, UNICEF's Pathway analysis helps clarify which adolescents are most in need and which interventions to select (see Box 6).

UNICEF country offices are encouraged to consider programme options which will impact the largest number of marginalized adolescents who have the least exposure to education in the country. For example, a country in which the largest share of out-of-school adolescents left school before primary completion may consider accelerated education programmes followed by other programme interventions to target the smaller share of out-of-school adolescents who dropped out of lower secondary education, such as short term catch-up programmes or alternative modalities of delivery. Further national and sub-national analysis and contextualization are needed to make programmatic choices. The following section provides a starting point for discussion.

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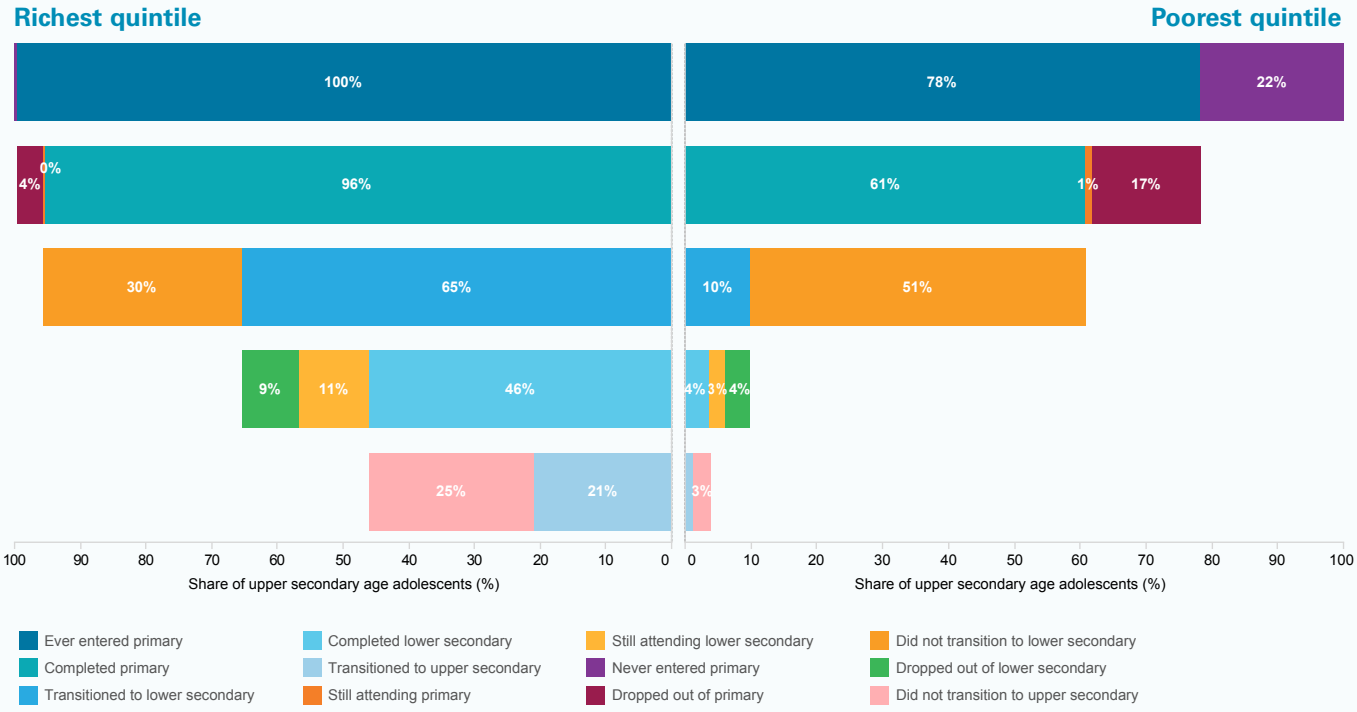
Box 6 Tanzania: Identifying adolescents facing the most severe poverty

Challenge: An estimated 2 million children between the ages of 7 and 13 years are out-of-school in Tanzania, and almost 70 per cent of secondary age adolescents between 14–17 years are not enrolled in secondary education, with only 3.2 per cent enrolled for the final two years of schooling. Furthermore, it is estimated that 7.9 per cent of Tanzanians are living with a disability, and less than 1 per cent of children in pre-primary, primary and secondary school have a disability. There is a need to better understand both which adolescents in Tanzania to target with educational interventions and which interventions are most needed.

Response: UNICEF's Pathway analysis provides a clearer picture of the share of adolescents of upper secondary age in and out of school by education level and disaggregated to show the different educational paths by sex, location and household wealth (see Fig. 3 below). The analysis reveals that a large share of adolescents drop out after primary completion, a pattern even more apparent within the poorest quintile: 55% of adolescents of upper secondary age left school without completing lower secondary education. However, within the poorest quintile, there is a larger proportion of out-of-school children who have never been to school (22%) and who dropped out before primary completion (17%). The data show that only 10% of upper secondary age adolescents from the poorest households ever enter lower secondary education (compared to 65% of the richest adolescents), and only 5% have completed lower secondary education. Therefore, system strengthening efforts may focus on lower levels of education (pre-primary and primary), as well as transition to lower secondary. With respect to responses for out-of-school adolescents, the largest proportion are those who left school before completing lower secondary.

Results:

Pathway analysis of educational attainment of upper secondary age adolescents, by household wealth, Tanzania 2016



UNICEF's added value: The analysis allowed for evidence-based programming targeted at strengthening primary as well as transition to lower secondary. Non-formal education programmes were needed to reach adolescents who did not enter/complete lower secondary education, as well as programmes to reach adolescents who never went to school.

Programmatic responses for in-school adolescents: System strengthening

If most adolescents (and most of the marginalized groups) are in school, then programming may take a system-strengthening focus to support their progression, transition, learning and skills development in the formal system, whether through traditional modalities of secondary education delivery or multiple flexible pathways. Supporting the development of strong, equitable national education systems is crucial for adolescents of today and tomorrow. Timely enrolment in and progression through high quality, inclusive pre-primary and primary education are the most effective ways to reduce the number of out-of-school adolescents in the long term. In many countries, the education system is highly inefficient, with high rates of school failure and repetition that lead to a sizable proportion of adolescents remaining enrolled in primary education as overage students.[66]

If, on the other hand, most adolescents (and most of the marginalized groups) are out of school, then programming may include a larger focus on alternative education pathways and non-formal education response to bring these adolescents back into learning and skill development, whether into formal or non-formal education or into training and employment.

While strengthening access to and quality of the traditional school model is essential, as it is the most institutionalized medium for education and reaches the most adolescents, programming should also consider whether **alternative models of formal secondary education delivery** might expand coverage to hard-to-reach adolescents such as those in remote areas.

The systems strengthening component of programming is equally important in development contexts and humanitarian situations. As such, country offices work in partnership with government in all contexts to improve access and quality of education for marginalized children and adolescents.

Table 6 Summary of programmatic responses for in-school adolescents: system strengthening

Education level most secondary-age adolescents attending, particularly the most marginalized	Education response emphasizes strengthening of the secondary sub-sector
Primary education (as overage students)	The quality and efficiency of primary education, and transitions to lower secondary for marginalized adolescents.
Lower secondary, with low transition to upper secondary (especially marginalized adolescents)	An expanded focus on the equitable access to and quality of lower secondary education, then transitions to upper secondary for marginalized adolescents.
Lower secondary and upper secondary	An expanded focus on the equitable access to and quality of upper secondary education (general and TVET) and transitions to higher education, quality training decent work for marginalized adolescents.

Box 7 Cambodia: Accelerated Learning Programmes (ALP) to prevent dropout of over-age adolescents

Estimates for Cambodia show that 54.4 per cent of children aged 12–14 are still in primary school, and as such, are at high risk of dropping out before completing basic education. Children in rural areas are particularly at risk; in fact, some 85 per cent of out-of-school children live in rural areas. UNICEF has supported the Ministry of Education, Youth and Sports to roll out Accelerated Learning Programmes to provide students who have dropped out or who are over-age with opportunities to complete basic education. The programme demonstrated solid success in Preah Vihear, Kampong Speu and Kampot provinces. In all schools where the programme took place, 97 per cent of the targeted children were promoted through primary school, with a dropout rate of less than 1 per cent, increasing their chances to transition to secondary school. Given these results, UNICEF Cambodia is advocating for the use of alternative education programmes for migrant adolescents (15 to 18 years) who are more likely to migrate alone for work rather than study, including those who return from cross-border migration. Alternative education programmes could include night classes, part-time study programmes or accelerated learning to ensure completion for adolescents in basic education.

Identifying the barriers to access and learning for adolescents

Once target groups and education levels have been identified, the CO can next consider the evidence and data available regarding the main reasons (or barriers) preventing secondary education access and completion for these groups. This will identify whether the policy and programme priorities should focus on bottlenecks from within the enabling environment, demand, supply or quality. A useful tool for this step can be found in the UNICEF-UIS OOSCI Operational Manual.[67] Common barriers to access are presented below.

What barriers prevent adolescents from accessing and completing secondary education?

While the specific barriers faced by adolescents will vary by country, common barriers are described in Figure 7.


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Table 7 Common barriers to education for adolescents of lower and upper secondary age[68]

Domain	Barriers to education for adolescents of lower and upper secondary age
Enabling Environment	**Policies, budget, management and coordination** • Right to secondary education for specific groups of adolescents not recognized (Refugee and migrant adolescents, adolescents with disabilities, pregnant adolescents) • Inequitable allocation of resources to secondary schools in disadvantaged communities • Weak monitoring systems to identify adolescents who have never been to school or dropped out • Lack of coordination and regulatory oversight of non-formal education for out-of-school adolescents
Demand	**Social norms and discriminatory cultural practices** • Attitudes in society mean some adolescents are not expected to or are prevented from exercising their right to education (and especially to secondary education) • Adolescents are more aware of stigmatisation – this particularly applies to those with disabilities, those with low social status and ethnic minorities • Attitudes of parents and adoolescents toward future life choices: pressure to marry, pressure to work • School-based violence, bullying and sexual abuse are more prevalent at secondary level • Low adolescent moivation and peer pressure to leave leaving school for income generation, especially if overage students
	Direct and indirect costs • Direct costs increase across phases of schooling in terms of fees (including exam fees), materials, uniforms, transportation, accomodation, TVET equipment etc. • In some contexts, more private provision at lower and upper secondary can mean higher costs • Indirect costs increase as adolescents not working and contributing to family income (upper secondary education is not compulsory and older adolescents have the right to work rather than attend education or training opportunities) • Economic repercussions of emergencies
Supply	**School facilities and accessibility** • School facilities are unsafe, inaccessible to children with disabilities and/or lack water and sanitation (affecting girls' attendance, menstrual health, privacy issues) • Lack of availability of lower and upper secondary schools, including TVET, especially during emergencies • Lack of non-formal education opportunities to acquire basic foundational and transferable skills for those who have not completed primary education
	Distance to school • Increased distance from home to lower and upper secondary schools means increased transport costs, safety issues for girls on commute to school but also in accommodation outside the home.
	Teacher availability and attendance • High teacher/student ratio in secondary education, especially in rural and remote areas • High teacher absenteeism • Lack of women teachers in secondary education (gender imbalance)

Table 7 Common barriers to education for adolescents of lower and upper secondary age (cont.)

Domain	Barriers to education for adolescents of lower and upper secondary age
Quality	**Curriculum lacks relevance to context, ineffective pedagogy and supply of teaching/learning materials** • Curriculum focussed on academic learning for elite – lacking relevance for all learners and different life paths, does not encourage development of transferable skills • Skills development programmes and vocational education are not relevant to the labour market • Teaching does not allow for adolescent participation and active learning • Lack of qualified and subject-specialist teachers in disadvantaged areas • Teachers are untrained in inclusive approaches and in identifying and supporting students not learning • Teaching/learning materials are gender biased and do not represent disability and minority issues positively • Difficulty in adjusting to change in language of instruction from primary to lower secondary level, or for refugee and migrant children to adjust to different language of instruction

Figure 7 Profiles of disadvantaged adolescents and common barriers they face in education

Adolescents living in rural areas

KEY BARRIERS:

Distance to secondary school (especially for girls); low-quality, overcrowded schools; school absenteeism due to agricultural work.

Adolescents not speaking language of instruction

KEY BARRIERS:

Lack of language learning support; lack of teaching and learning materials in the mother tongue; stigma and lack of inclusive school environment.

Adolescents with disabilities

KEY BARRIERS:

Regular schools not accessible; lack of trained teachers; teaching and learning materials not inclusive; stigma and lack of inclusive school environment.

Child labourers (especially boys)

KEY BARRIERS:

Costs of education; school absenteeism; inflexible school timetable.

Adolescents facing the most severe poverty

KEY BARRIERS:

Direct (school fees) and indirect costs of education.

Adolescent girls

KEY BARRIERS:

Social norms (including child marriage, household duties); no safe transportation or accommodation for secondary school; lack of gender-responsive WASH facilities; gender discrimination in teaching and learning materials and school staff behavior; lack of female teachers and role models; expulsion due to pregnancy.

Adolescents affected by conflict and migration

KEY BARRIERS:

Limited access to schools; unsafe/insecure school infrastructure; insecurity, especially travelling to and from school; risk of being recruited by armed groups (especially for boys); fewer teachers and learning materials available; missing documentation to register at new school, lack of psychosocial support and help to catch up on gaps in education; costs of education; stigma and lack of inclusive school environment.

BARRIERS FOR ALL

Achievement gap due to low learning outcomes in early years; Irrelevant, ineffective curriculum and teaching approaches; School violence and bullying; Increased social expectations to marry / work.

Delivering education results for adolescents

With the key barriers identified, the following section provides suggestions aligned with UNICEF Strategic Plan Goal Area 2 for strengthening programming in the areas of (1) equitable and gender-responsive access, (2) improved learning outcomes, and (3) skills development. Each result area is divided into key dimensions considered important for the inclusion of marginalized adolescents in the education system and secondary education sub-sector strengthening.

Equitable and gender-responsive access

Ensuring equitable access to secondary education begins with timely enrolment in and progression through pre-primary and primary education. The barriers and opportunity costs of attending school tend to increase during adolescence. System strengthening programming should address the key identified barriers to secondary education access.

The key dimensions in this area are: An education sector plan/strategy that addresses equity issues; gender equality in education; inclusive education for children with disabilities; emergency preparedness and response; and EMIS that provides disaggregated data. UNICEF can work with governments and communities in key strategic actions as described in table 8.

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Table 8 Key Strategic Actions

Addressing equity in Education Sector Plans (ESP)

Key elements: costed policies and strategies for adolescents to develop secondary-level skills and learning through formal and non-formal education pathways included in ESPs;

Equitable resources: technical assistance to support a more equitable allocation of lower and upper secondary education teachers; possibility of cash transfers for marginalized adolescents for whom poverty is a barrier to continue education at the secondary level.

Gender equality

Key elements:

- ***Access:*** support for programmes that reduce the opportunity cost for education, including cash transfer programmes and scholarships, which have been proven effective in improving girls' secondary school attendance; flexible timelines and schedules compatible with caregiving and work responsibilities;
- ***Learning:*** support for programmes that improve learning outcomes for girls and boys using gender responsive pedagogies, curricula free of gender bias, and facilitating equal development of skills regardless of sex (e.g. girls are encouraged to learn ICT/STEM skills and boys are encouraged to become better readers);
- ***Teachers:*** improved gender parity in the teacher workforce across subject matters and among the teachers who teach the most marginalized adolescents;
- ***Cross-sectoral programming:*** to address gender norms that lead to child marriage, adolescent pregnancy, Violence Against Women and Girls (VAWG), School-Related Gender-Based Violence (SRGBV), WASH, MHM and micronutrients supplementation to prevent anaemia;

Gender equitable resources: technical assistance for gender-responsive budgeting in education, resource allocation for programmes targeting most marginalized adolescents excluded from the education system because of gendered barriers, and benefit incidence analysis to advocate for gender-equitable education investments.

Inclusive education for adolescents with disabilities

Laws/policies: advocacy and policy dialogue for all pathways to secondary education to be included in laws and policies to establish the right of adolescents with disabilities to receive an education;

Physical environment: all learning centres and schools serving adolescents are accessible, including toilets;

Learning materials and communications: support for policies and programmes that ensure that assistive devices and materials which are relevant and appropriate for adolescents with disabilities are available in schools.

Emergency preparedness and response

Risk assessments: vulnerability assessments include likely hazard effects on safety and security in relation to access, including commuting to and from secondary schools, safety and security of dormitories, etc.; review of relevant risk content in curriculum includes lower and upper secondary and non-formal programmes and also considers how localized risk information will reach adolescents who are not in school;

Risk reduction strategy: the strategy assessment and vision encompass a diverse offering of educational programmes for adolescents, including capacity development, teaching content and resources, and school construction standards[69]; adolescent participation and engagement are explicitly promoted.

Education Management Information System (EMIS)

Data quality and timeliness: data collection includes the full range of education programmes and delivery platforms intended for adolescents operated by the Ministry of Education and other actors (public/private, general/vocational, as well as non-formal);

Data on overage students collected: a definition of NEETs is clear and collected nationally;

Data on dropout and absenteeism: clear definitions in regulations and identification of at-risk children at school level given the higher likelihood of dropout and absenteeism in adolescence.

Box 8 Bangladesh: Sector wide approach (SWAp) to strengthen the secondary education subsector

The context and challenge

There are more than 35 million adolescents (10-19 years) in Bangladesh, comprising 21 percent of the population. Bangladesh is a rapidly developing populous country, with a growing economy, and notable development in the last decade around primary enrolment. However, one in three families are still in poverty, and adolescent girls and boys face a wide range of issues. At lower secondary age, 17 percent of adolescents are out of school. This number rises to 24 per cent out-of-school adolescents among the poorest, with rural male adolescents most affected (33 per cent). **Among adolescents of upper secondary age, a stark 48 per cent are out of school, with 65 per cent of the poorest adolescents and 70% of adolescent girls in rural places completely excluded from the education system.**

The growing population of adolescents puts stress on the education system for resources and responses to guarantee education opportunities for all, especially the most marginalized. Bangladesh is at a critical development juncture and has a unique opportunity to harness the potential for fast-tracked inclusive economic growth resulting from the demographic dividend. It is precisely at times of great inequity in education systems and responses that a sector-wide approach to addressing the problem is most appropriate.

Response: The response in Bangladesh is a a Multi-Donor Trust Fund ($745m) around a sector-wide Secondary Education Development Programme (SEDP) 2018-22. Under this umbrella and aligned with the UNICEF sector-wide strategy Education for Adolescents is a US$ 9.5 million four-year programme designed to focus on giving children and adolescents the capabilities to acquire secondary level skills or the equivalent rather than assuming a learning trajectory that is a linear progression through grades. For children and adolescents in formal schooling, the programme is expected to lead to an increase in the secondary net attendance ratio. By embedding **skills-based education** (life, citizenship and other skills) in the policy and curriculum frameworks and supporting schools in planning and implementing activities including life and citizenship skills, there will be reduction in dropout rates and an increase in cycle completion. Secondary school-aged out-of-school adolescents are supported to access education through **alternative learning pathways**.

UNICEF added value: UNICEF contributes to to Pooled Funds, provides technical assistance and service delivery for marginalized children, and supports activities within the SEDP through improvements in the following key catalytic areas: curriculum quality and relevance; teacher capacity; cycle completion for girls; school management and accountability.

Multi-sectoral work: The programme is crosscutting with Gender, WASH, Child Protection and Health. To support collaboration, the Bangladesh Country Office will establish a flexible management structure that acknowledges that multisector programming requires additional time. Incentives for cross-sectoral work are being considered and include readjustment of accountability structures and mobilisation and/or earmarking of resources for cross-sectoral interventions.

Partnerships: Participation has been widened to include new partners within the Ministry to ensure that all children and adolescents are reached. This includes not only the Directorate of Secondary and Higher Education, but also the Directorate of Technical Education and Directorate of Madrasah Education.

Results: This programme is in the early stage of implementation. Action Research on strategies to reduce drop-out for adolescents is ongoing as part of the design of the programme.

Box 9 Brazil and Argentina: ICT-based secondary education for rural and remote areas

Brazil: The State of Amazonas in Brazil faces great challenges to guarantee the right to education to children and adolescents, including its size, remotely located communities, and low population density—as low as 1 person per square kilometre in many areas. Most municipalities and communities outside of Manaus, the state capital, are only reachable by boat, and travel time can take up to 9 days. In this context, a traditional public-school model cannot efficiently offer quality educational opportunities to children and adolescents from pre-primary to upper secondary. An innovative alternative learning modality was launched to tackle the challenge of matching the geographically dispersed demand for secondary schooling with the limited supply of qualified teachers in remote areas. The solution came in the form of broadcasting online lessons delivered by highly qualified teachers from Manaus. This alternative primary and secondary education programme includes live interaction between students and teachers and an in-person facilitator in each classroom to guide the learning process.

Argentina: In isolated rural areas in Argentina, delivery of secondary education is also a challenge. UNICEF supports an innovative approach to access education through a blend of remote teaching and on-site teaching assistance. Students report to classrooms in their own community and engage remotely with teachers who are stationed at an urban headquarters school. Students may also receive support from a trained tutor and an indigenous teaching assistant. Students connect with teachers and tutors by electronic notebook, and teachers visit the communities to meet students and their families at least twice a year. This format was adopted by four rural provinces, and three additional provinces have requested UNICEF support for its implementation.

Improved Learning Outcomes

UNICEF country offices can support the improvement of secondary level learning outcomes through designing and implementing teaching standards and training in student-centered pedagogies that promote adolescent participation, including gender-responsive pedagogies. To support learning in fragile and humanitarian contexts, provision of **services and learning materials** continue to be vital to ensure that vulnerable populations of adolescents can learn.

Secondary education level learning outcomes can be strengthened by considering the following dimensions:[69] learning assessment systems; mother tongue/multilingual education; teacher development; community participation; and gender-responsive teaching and learning. Details of each dimension are presented in Table 9.

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Table 9 Dimensions for consideration in strengthening secondary education learning outcomes

Learning assessment systems

Classroom assessment: include secondary education classrooms, alternative modalities and vocational streams in relevant interventions to improve school-based classroom assessment practices, such as guidelines, teacher professional development, formative assessment item banks, and innovations;

Examinations: provide technical assistance to ensure that examinations are country-wide and standardized, as well as designed for demonstrating learning and skills application rather than solely rote memorization; advocacy for examinations for system strengthening rather than as gatekeepers to prevent students from continuing their education, causing exclusion.

National large-scale assessment:

- support the quality improvement of secondary education level assessments and advocate for their greater alignment to secondary-level curricula and learning standards;
- promote the use of assessment data to identify equity issues in learning outcomes to guide decision making and policy to improve the quality of education for all;
- consider using international large-scale assessments aimed at adolescents, such as TIMMS and PISA, to examine inequities in learning outcomes as well as other quality dimensions of the education system for system improvement.

Culturally and linguistically relevant education

Addressing cultural diversity: provide technical support to Ministries of Education for teaching standards, curricular materials and professional development aimed at affirming adolescent racial and cultural identities, fostering critical thinking about their societies, and empowering adolescents as agents of social change, all elements that have been demonstrated to foster positive academic outcomes for adolescents.[72,73]

Addressing linguistic diversity: conduct a survey of language diversity in the country and the extent that adolescents are supported to learn in their mother tongue; support programmes aimed at upskilling teachers for effective teaching of secondary-level skills to adolescents who are not fully proficient in the language of instruction; consider policies on language of instruction at secondary level if different from primary schools[74] and determine whether adolescents in secondary education are learning in a language they understand.

Teacher development

Initial teacher education and teacher professional development: initial teacher education includes providing opportunities for pre-service teachers to practice building upon students' existing knowledge; include lower and upper secondary teachers of adolescents in formal or non-formal settings and in all delivery modalities in national initiatives to improve teaching effectiveness, including best-practice sharing, reflective practice and mentorship to enable them to implement new skills and approaches in their teaching;

Incentives for pro-equity deployment: support the development of improved incentive schemes and deployment strategies to address subject-specific teacher shortages across all pathways to secondary education in formal and non-formal education, prioritizing schools and learning centres where disadvantaged adolescents attend;

Teacher accountability: support systems for regular performance evaluation of teachers working with adolescents using multiple sources of information; support monitoring of and accountability measures for teacher absenteeism; examine legal provisions for dismissal measures in cases of misconduct, child abuse or poor performance are for consistent implementation;

Teacher hardship index: support the deployment and retention of experienced teachers in the most disadvantaged schools using the teacher hardship index, which determines the level of special allowance for teachers working in challenging areas by combining various factors of hardship (e.g. travel times; internet access; municipality poverty levels).

Table 9 Dimensions for consideration in strengthening secondary education learning outcomes (cont.)

Promoting community participation

Community and student participation: advocate for secondary school students to be active members of student management committees and to freely form student and youth movements to civically participate and contribute to improve secondary education sub-sector;

Accountability and school governance: ensure that Multiple and Flexible Pathways to secondary education are part of existing programming to improve community-based monitoring by inclusive school management committees with involves adolescent membership.

Gender-responsive teaching and learning

Addressing gender disparities in learning outcomes: advocacy and technical assistance to conduct ongoing learning outcomes measurement and monitoring in sex disaggregated results; support programmes that use assessment results to target the gender barriers and social norms that lead to gender disparities in development of foundational and transferable skills (e.g. disparities in STEM);

Gender-responsive pedagogies: provide technical assistance to improve the quality of initial teacher education and professional development for secondary education teachers through the inclusion of gender-responsive pedagogies in these programmes; advocate for the inclusion of gender responsive pedagogies in teaching standards and supervision rubrics;

Curricula free of gender bias: advocacy and technical assistance to create national and subnational curricula free of gender stereotypes that includes age-appropriate and gender sensitive information on CSE and HIV prevention and provides equal opportunities for girls and boys to develop job-specific skills.

Learning environments free of gender violence: advocacy and technical assistance for adolescents to learn in environments free of violence, whether attending formal or non-formal education; UNICEF can contribute to improve learning outcomes by supporting the implementation of codes of conduct, standards and monitoring frameworks that address bullying, physical, verbal, and psychological, violence, sexual violence and abuse, sexual harassment and intimate partner violence (adolescent dating violence).[75]

Box 10 Experimental evidence on technology-aided instruction to support adolescent learning in India

The context and challenge: Over 60 per cent of children in India aged 6-14 cannot read at the second-grade level despite primary school enrolment rates of over 95 per cent[75] and substantial increases in education spending. In response to this learning crisis, a great deal of funding has been committed to support programmes that use information and communications technologies (ICT) in the classroom, promote computer literacy, and develop innovative curricula in electronic formats. However, evidence to date on the impacts and cost-effectiveness of education technology is mixed, with some research suggesting no impact or even negative impacts.[76]

Learning assessment scores of lower secondary students in Math and Hindi, with comparison to expected outcomes, India (Blue line: Expected Outcome; Red Lines: Actual Average Performance)[77]

Response: J-PAL affiliated researchers partnered with Educational Initiatives to study the Mindspark programme. Mindspark is a computer-assisted learning (CAL) software programme that provides students with personalized instruction. Mindspark uses a set of games, videos, and activities that pull from a database of over 45,000 questions to identify the learning level of each student, test students and provide explanations and feedback, dynamically adjusting to the student's learning and progress level. Mindspark can be delivered through desktop computers, laptops, and tablets, and it can be implemented online, in school classrooms or in after-school programs.

Box 10 Experimental evidence on technology-aided instruction to support adolescent learning in India (cont.)

Researchers conducted a randomized evaluation to test the impact of the Mindspark programme on student test scores in mathematics and Hindi. Among the 619 students recruited for participation, around half were offered a voucher for free attendance at a Mindspark centre. Typically, parents pay INR 200/ US$3 per month to send their children to the programme. The students, mostly between grades 6 and 9, were from government-run secondary schools in low-income neighbourhoods and attended the programme 90 min per day, six days per week. Each 90 min session included 45 minutes of the CAL software (customized activities in math, Hindi and English) and 45 minutes of instructor-led small group instruction (about 15 students per group; teaching assistants covered core concepts that were not customized to each student's learning level, and provided time for students to complete homework assignments).

To measure the impact of the programme on student achievement, researchers tested students in math and Hindi at the Mindspark centres at the beginning and end of the programme, a gap of about 4.5 months.

Results: The Mindspark programme increased learning levels across all groups of students and was cost-effective compared to other instruction types. Prior to the programme students in the sample were on average several grade levels behind. The average student in grade 6 was an estimated 2.5 years behind in math; by grade 9, this deficit increased to 4.5 years.

Centre Test Scores: The programme improved performance in both math and Hindi across multiple grade levels. Students offered a voucher scored 0.36 standard deviations higher in math, improving by twice as much as students in the comparison group. Students who received the voucher also scored 0.22 standard deviations higher in Hindi, improving by 2.5 times as much as students in the comparison group. Researchers estimate that attending Mindspark for 90 days would raise math and Hindi test scores by 0.59 and 0.36 standard deviations, respectively. Impact did not vary significantly by level of initial achievement, gender or wealth, implying that the programme was equally effective in teaching all students. However, the relative impact was much greater for weaker students, since their rate of progress under standard classroom settings was close to zero.

School Test Scores: Researchers also used school administrative data on student test scores to measure their performance against their official grade level. In Hindi, students were initially less behind and Mindspark presented official grade level material, the programme had positive effects. In math, however, the programme had no effect. Researchers hypothesized that since students were usually several years behind in math, the school exams would still be beyond their learning level, even if they had made some improvements.

Cost Effectiveness: Mindspark was cost effective in comparison to other common alternatives. The per-student monthly cost of the programme was around INR 1000 (around US$15) per month compared to a cost of around INR 1500 (US$22) per month in spending per student at their public schools in Delhi. Researchers expect that the programme cost per student would decrease to under US$2 if it were scaled up to a larger number of students.

Box 11 Honduras: Tutorial learning system, effective secondary education for rural communities

The context and challenge: Widespread recognition of "the global learning crisis" has galvanized a broad range of actors in the international education community. However, many interventions have not significantly changed the traditional content or pedagogy of education, offering only marginal improvements for systems that are deeply flawed and resistant to change.

Response: The system of tutorial learning (SAT in Spanish) is an innovative system for secondary education with a coherent teacher recruitment and training method, resource provision for effective teaching, and mechanisms for professional support, accountability, and incentives. SAT was implemented in Honduras as a pilot programme funded by the Department for International Development of the United Kingdom (DFID) in 1998. An NGO government partner, Asociación Bayán, subsequently became responsible for training tutors and other programme staff under the supervision of the Ministry of Education.

In 2003, the Honduran government signed a formal agreement with Bayán, accredited SAT as an official lower and upper secondary school modality, and agreed to pay the salaries of SAT teachers and field supervisors. To hire tutors, Bayán advertises in rural communities and screens candidates with an intake interview and competency exam. New teachers, who must have completed secondary school, participate in 2-week in-service training courses that precedes each trimester of the academic year for a total of 250 hours of training annually. Teachers are public contract employees and receive ongoing monitoring and instructional support from a network of Ministry staff field supervisors who are each responsible for about 10 rural schools within a defined geographic area.

The SAT model combines features of several popular education interventions in developing countries, including improved instructional materials and teacher training, flexible teacher contracts and an alternative teacher recruitment model, as well as decentralized school management. The government approves the SAT curriculum and pays teacher salaries, but Bayan retains some autonomy to hire, train, supervise, and occasionally dismiss teachers based on performance and codes of conduct.

Results: Findings from a quasi-experimental impact evaluation found that students in SAT villages in Honduras had test scores that were **45% higher** than children in neighbouring villages attending conventional secondary schools. This same study estimated the cost of SAT to be 10% lower than the traditional rural secondary school model. In short, the study found better quality at a lower cost in SAT than traditional rural secondary schools (McEwan, et al., 2015).

Following up on the findings of the impact evaluation, researchers from University of California Berkeley examined the features of the SAT programme that explain its success in improving educational quality in low- and middle-income countries and found two key factors:

1. Teachers are trained with the same curriculum and pedagogies they teach to students, allowing them to master the content and experience and in turn embrace student-cantered learning. Bi-weekly visits from a coach allow for reinforcement of content.

2. SAT offers an alternative system, where NGOs partner with the government to offer a new model for teacher recruitment and preparation, resources, and support.

Despite the evidence supporting SAT's ability to go to scale (Brookings, 2016), the programme has not continued to scale up in Honduras, due in part to limited public funds for secondary education expansion and the education system's slow pace in adopting major pedagogical reforms. Stigmas regarding rural education and the merits of "alternative" approaches remain a major challenge for secondary education systems, demanding a great deal of time and resources but appearing to be worth the investment.

Skill development

The mainstreaming of skills development within the education system cuts across education levels but has a particular role to play curriculum, teaching approaches, and assessment within in all types of lower and upper secondary education. Mainstreaming skills development includes reflection on the relevance and responsiveness of the secondary curriculum to the demands of the labour market and how boys and girls are impacted differently. Key dimensions for gender-equitable skills for learning, personal empowerment, active citizenship and/or employability include skills development mainstreaming within national systems; responsiveness to labour market demands; and gender equity mainstreaming in skills development. opportunities. Additional details on key aspects to ensure that adolescents develop foundational, transferable, job-specific and digital skills are presented in Table 10 below.

Table 10 Keys to ensuring adolescent skills development

Mainstreaming of skills development within national education systems

- **National education/training policies and plans:** advocacy and technical assistance to ensure policies and plans for holistic skills development include provision for the wide range of secondary education programmes (lower and upper, public and private, accelerated, distance, general and vocational) as well as non-formal education, and for addressing key barriers to skills development for the most marginalized adolescents who may not be in the formal education system;
- **Curricula and training:** technical support to in-service and pre-service teacher training to support holistic skills development in lower and upper secondary education in line with the curriculum; teachers in non-formal education are trained and provided guidance materials to embed skills into programmes which are appropriate for adolescents with different levels of educational attainment;
- **Community engagement:** consider how the broader community is engaged through skills development programme delivery and whether employers (through apprenticeships and provision of training), adolescent youth groups, and student councils can be more involved.

Responsiveness to the demands of the labour market

- **National skills development programmes:** consider to what extent secondary education adequately prepares adolescents for the workforce, including transferable, job-specific and digital skills development; work in partnership to identify and perhaps develop labour-market relevant skills development programmes within formal and non-formal education that result in improved workplace outcomes for adolescents.

Gender equality in opportunities for skills development

- **National education/training policies and plans:** technical assistance to support policies and programmes to avoid tracking adolescents into skills development opportunities based on their gender (e.g. welding for boys and sewing for girls) and instead encourage equal participation and performance of girls and boys in STEM, technical trades training, and digital technologies; consider incentives for older marginalized out-of-school girls and boys to access gender-responsive non-formal education skills development;
- **Gendered barriers to transition from education to employment:** support programmes that tackle gendered barriers older adolescents face to transition to the workplace (e.g. child care, gender discrimination and gender norms) in coordination with the productive sector, so that paid apprenticeships and entry-level jobs become available to marginalized young women who continue to be the most excluded from the workplace globally.

Box 12 Lebanon: Technical and Vocational Education and Training (TVET) sub-sector reform

The context and challenge: Vocational and Technical Education (VTE) in Lebanon faces shortcomings in quality and access. In 2017, across total secondary school enrolment, only 16.2 per cent were enrolled in vocational programmes (approx. 40 per cent female). The participation rate in technical and vocational programmes for 15-24-year olds was only 5.3 per cent,[78] the majority of whom were not enrolled in public-sector schools. The structure of the system is inadequate and out-of-date for initial vocational training, with a growing mismatch between an inflexible curricula and the quality needs of enterprises in all sectors.[79] Main challenges include the "unattractiveness" of TVET; lack of inclusiveness; poor quality of training that does not adequately prepare students for the demands of the labour market; absence of a national qualification system; and weak relations with a private sector that has not yet been fully involved in either strategic planning and decision-making for TVET curricula or the provision of work-based learning opportunities.

Response: A UNICEF and ILO partnership has forged the way for significant TVET sub-sector development in Lebanon. In 2018, the National Strategic Framework for Technical and Vocational Education and Training (TVET) 2018–2022 was launched after year-long deliberations led by the Government and involving a wide array of stakeholders, including four key ministries: Education and Higher Education (MEHE); Labour (MOL); Agriculture (MOA; and Social Affairs (MOSA); as well as stakeholders such as the National Employment Office (NEO), the National Vocational Training Centre (NVTC), private sector representatives and non-governmental organizations (NGOs).

Results: The key results emerging from this initiative include:

- government, private and international stakeholder engagement in the reform process
  - » includes all official and private TVET institutions in Lebanon targeting both males and females in the 12-21 age group;
  - » signals readiness for wider collaboration in decision making and service delivery with approval and acknowledgment from concerned governmental and non-governmental bodies as a pathway to better employment prospects and labour market outcomes for youth;
- use and adaptation of international, regional and national standards and tools, including emerging good practices as a reference, including
  - » UN and EU tools and standards on vocational guidance and training; technical education; core work and life skills; skills development; competency-based training; qualifications system and lifelong learning; recognition of prior learning; and market-based skills training;
- employer and worker organization engagement in the TVET system

In 2019, eight new competency-based curricula were developed by official Directorate General of Technical and Vocational Education (DGTVE) experts in close cooperation with eight experts from the private sector (occupation, learning, qualification, assessment) following the DGTVE training on international Designing a Curriculum (DACUM) methodology. The eight curricula have been officially approved and endorsed by the DGTVE, and training using the new curricula has already commenced.

Box 13 Jordan: Development of transferable skills to support out-of-school refugee adolescents[80]

Makani ("My Space" in Arabic) integrates education, child protection and health services, including psychosocial support and youth empowerment, to promote the full development of children and adolescents under one roof. In terms of education, for children and adolescents who are temporarily unable to enrol in formal education, Makani centres provide non-formal education[81] catch-up type programming intended to prepare learners to enter the formal education system. The programme lasts 4-6 months and takes an individualized, "whole child" approach to learning opportunities through trained facilitators. Makani also offers activities to develop transferable skills such as learning skills, self-management, skills, social skills and teamwork skills through different life situations. The centres are designed to be safe spaces where conflict-affected children and adolescents can regain a sense of normalcy through structured routines and activities and psychosocial support services. Makani centres make referrals to various services to enrol in formal education and get psychosocial or health support. In 2017, 200 centres operated nationally in all governates of Jordan and serve all marginalized children in the community regardless of nationality and free of cost. In 2018, the programme reached over 119,000 children, nearly 100,000 in non-formal education and 115,000 in life skills activities.

Cross-sectoral programming to support adolescent education

Cross-sectoral coordination is fundamental to UNICEF comparative advantage to achieve improved school enrolment for the poorest adolescents, because joint sector efforts tackle the complex barriers that adolescent girls and boys face in accessing and completing secondary education with relevant learning outcomes, a key finding of the Out-of-School Children Initiative and the GAP Targeted priority on girls' secondary education.[81] At the same time, improving completion of high-quality secondary education and non-formal education pathways contributes to many other Goal Areas of the UNICEF 2018-21 Strategic Plan and the Sustainable Development Goals. The links between these key results and adolescent education are mapped in Annex 2 and Annex 3.

The list below provides key entry points for cross-sectoral programming for secondary education:

ECD

- increase access to quality early childhood development services to optimize brain development and foster important long-term benefits in adolescents; increase access to affordable pre-primary to reduce the care burden on adolescent siblings, especially girls

Health and Nutrition

- provide technical assistance to governments to deliver nutritious meals in schools from early years to adolescence to address risks of poor nutrition (ex. stunting, iodine deficiency, and iron-deficiency anaemia) which can have lasting effects on learning throughout the lifecycle and for pregnant adolescents;
- provide technical assistance to governments to provide quality mental health referrals and services to adolescents in schools;
- provide technical assistance to governments to make sexual and reproductive health information and services available to adolescents in school

WASH

- provide technical assistance to governments and partners to adopt minimum standards of WASH in lower and upper secondary schools as well as non-formal education programming sites, including menstrual hygiene management;
- monitor WASH and MHM coverage in schools through Education Management Information Systems

Child Protection

- contribute to developing school professional codes of conduct and mechanisms for secondary schools and non-formal education programmes to become free of violence (SRGBV, bullying, etc.);
- contribute to developing referral mechanisms for adolescents and teachers to report instances of violence, abuse, and mental health issues to appropriate authorities;
- provide technical assistance to governments to create mechanisms and strategies to prevent and address child marriage;
- contribute to, design, and advocate for secondary education provision for adolescents in conflict with the law

Gender

- generate evidence on how to identify and address social norms that prevent adolescent girls and boys from accessing and completing secondary education;
- provide technical assistance and quality assurance in lower and upper secondary education programming as well as in non-formal education pathways, focusing on the gender-responsiveness of the teaching and learning process;
- contribute to develop plans and strategies that increase gender equality in secondary education in terms of gender parity in teacher allocation and leadership and gender equitable opportunities to counter traditionally gendered subjects and types of education (e.g. STEM, nursing, or vocational education)

Adolescents

- contribute to develop mechanisms of student participation at the lower and upper secondary education level so that adolescents participate in decision making in the processes that affect them;
- provide technical assistance and quality assurance to programming on non-formal education programmes, including skills development, to ensure that they are developmentally appropriate and include adolescent participation

Social Policy

- engage in policy discussion and provide technical assistance to national and regional governments on equitable budget allocation and financing; for more information see Equitable Financing of Secondary Education;
- provide technical assistance to governments and partners in designing cash transfer schemes, either conditional to school attendance or universal, targeting marginalized adolescents;
- contribute to evidence generation and analysis on labour market demand and supply, youth skills mismatch and employability programmes

Box 14 Armenia: Cross-sectoral strategies to for identification of out-of-school adolescents and strengthening of EMIS

Context and challenge: While most compulsory school age children in Armenia are going to school, some remain excluded from education due to multiple, complex and overlapping barriers. Armenia has made great progress in terms of secondary education enrolment and completion. National reform efforts to address OOSC have included law amendments making secondary schools inclusive and a shift to 12-year compulsory schooling in 2017. However, dropout continues to be an issue, especially among marginalized adolescents, showing that making an education level compulsory is not a "silver bullet solution" to universal enrolment. As in Armenia, education is also compulsory to upper secondary level in Pakistan, but persistently high numbers of out-of-school children indicate that such policies do not on their own address the underlying barriers to enrolment (such as demand or quality issues). Compulsory education is nonetheless a signal of government commitment towards universalizing enrolment.

Based on UIS data, the gross enrolment rate for secondary school in Armenia is dropping. In 2015, only 89 per cent of secondary age adolescents were in school, a drop of six per cent over a period of eight years. Boys were more likely to be out of school than girls. The reasons for non-attendance are varied, and many children, especially those with disabilities, are out of schooling and invisible to the system.

Solution: An early warning system coupled with targeted interventions were put in place so that adolescents at risk of dropping out of school could be identified early and tailored interventions could be designed to facilitate their staying in school. A pilot project (2014-2017) investing US$92,500 aimed to use existing systems and data collection mechanisms with enhanced cross-sectoral collaboration and local community leadership to test a comprehensive monitoring model for generating data on out-of-school children and children at risk of dropout. This would enable early identification and meaningful intervention.

UNICEF added value: Technical assistance was provided to the Ministry of Education and Science (MoES) to support monitoring of school dropout at the end of lower secondary (Grade 9 level) and throughout upper secondary for both general and vocational/technical education.

Multi-sectoral work: This project was a collaboration between Education and Social Protection teams and facilitated cooperation of the respective ministries MoES and the Ministry of Labour and Social Affairs. The success of this project is attributed to involving multi-sectoral local actors, case managers, school administrators and teachers, doctors of polyclinics, police officers, as well as regional and national authorities.

Results: The pilot project triggered a public discourse about out-of-school children (OOSC); helped to shape a policy framework, including definitions and cross-sectoral nature of the issue; and identified the entry points and existing resources for monitoring education participation and interventions in case of risks of dropout or OOSC.

Specifically, it led to:

- the development and testing of protocols for reporting on OOSC and absenteeism by a multi-disciplinary team, including core responsibilities of each actor;
- the development of a case management model (holistic; child centred) and subsequent creation of a case manager function within the social services department to sustain the model;
- evidence-based policymaking: an MoES decree on Identification, Registration and Referral of Children Out of Compulsory Schooling

4. Advocacy and partnerships

UNICEF has a unique role to play in working with partners to address the inequities that are barriers to every child learning, from the earliest years through to adolescence. UNICEF Education Strategy, Every Child Learns, signals a focus on secondary education as a vital element of modern education systems in building the foundational, transferable, entrepreneurial and job-specific skills children and young people need to transition to work and life. UNICEF's contribution to ensure adolescence is a second window of opportunity includes proactively coordinating with development partners on aligned technical and financial assistance, strengthening sector-wide and societal support to re-think secondary education, and amplifying the voice of children and adolescents in secondary-education plans, policies and delivery:

- **A coordinated approach with development partners:** As well as providing structured support to governments through technical assistance to address critical capacity gaps, UNICEF has a unique comparative advantage in supporting alignment between development partners through our role as Coordinating Agency for GPE in over half of all GPE countries. This advantage includes the role we play in hardwiring better and more timely data on secondary-level outcomes, system effectiveness and efficiency and equity into Education Sector Plans and Joint Sector Reviews. It also includes supporting Local Education Groups (LEGs) to bring together partners from public, private and civil society sectors to help improve the relevance of secondary education and increase levels of support.
- **New partnerships to address binding constraints to better outcomes for adolescents:** There are a number of opportunities to build collaborations which focus on accelerating results, especially for the most marginalized. At the country level, UNHCR and UNICEF are intentionally aligning to support enhanced capacity of governments to improve secondary education supply for refugee and host community populations, a robust opportunity to align comparative advantages in 10 "Joint Blueprint for Action" countries.[82] At the global level, UNICEF is a proud partner in the Mastercard Foundation's Secondary Education in Africa Initiative, which provides governments and stakeholders with practical options and examples of promising approaches. In addition, UNICEF is a founding member of Generation Unlimited, which brings together public and private partners to scale-up solutions to ensure every child and young person has access to world-class digital learning solutions to improve learning outcomes and make it more likely they can transition from school to work, engage in entrepreneurship and impact their communities.
- **Focused advocacy:** As well as technical education interventions to improve the supply of quality secondary-level education, especially for the most marginalized, UNICEF is well placed to take a 'whole of society' approach to address supply and demand side constraints to better outcomes.

An "at a glance" advocacy agenda on secondary education for countries

- **Impact:** Every adolescent has opportunities to complete 12 years of education, in accordance with SDG4.
- **Objectives of advocacy:**
  - » number of new/improved policies to support secondary education in particular focused on better supply of skills opportunities for the most marginalized;
  - » more equitable and effective budget allocation and utilization to support secondary-education;
  - » empower teachers and parents to demand more and improved opportunities to build secondary-level skills in schools and in communities;
  - » No/% education leaders and influencers champion secondary-education, especially for the most marginalized.
- **Strategic approaches to support advocacy for secondary education:**
  - » **Share "what works":** work with presidents, prime ministers, senior civil servants and mayors to ensure secondary-education is a key objective, including but not limited to the following: a) undertake political-economy analysis relating to secondary-education objectives; include underlying interests, incentives and institutions that enable or limit better secondary-level outcomes; b) provide case studies on what has worked to radically improve secondary-level outcomes in similar contexts; include "Leader to Leader" virtual collaboration and knowledge sharing; c) provide a platform to recognize leaders who are showing commitment to secondary-education for the most marginalized nationally and globally; c) use news op eds and online media to encourage discussion on secondary-education (the challenge, opportunity and what works);
  - » **Financing:** engage leaders at national and sub-national levels in action to increase the levels, effectiveness, efficiency and equity of spending by relying on evidence-based strategies to improve access and quality of secondary education: a) Public Expenditure Reviews explicitly focused on secondary-education (including Benefit Incidence Analysis); b) quarterly/annual tracking of selected secondary-education programmes; c) effective presentation of secondary-education spending data which makes it easier for leaders, parents and communities to engage with spending; d) budget dialogues which identify challenges and opportunities on secondary-education;
  - » **Engage young people and communities:** engage in communications for development (C4D) at the local communities level with SMCs, PTAs, faith leaders etc.; include targeted messaging on alternative pathways for the most marginalized; disseminate with local education stakeholders; feature voices of students and teachers in external communications; use social media to engage with public; refer to social media assets; and include specific messaging for reaching the most marginalized in public outreach and community engagement.

GENERATION UNLIMITED

Generation Unlimited – A global partnership to improve education and training for young people

Generation Unlimited is a global partnership working to prepare young people to become productive and engaged citizens. It aims to connect secondary education and training to employment and entrepreneurship, empowering every young person to thrive in the world of work. By 2030, there will be 2 billion young women and men seeking opportunities for a bright future throughout the world. If these young people are prepared with the right skills for work, they will live out their full potential and lift up entire nations, but investments in learning and training are falling short and too many young people are not keeping pace with the evolving demands of employment.

- Generation Unlimited brings young people together with the private sector, governments, international and local organizations to tackle this urgent challenge. It aims to connect secondary education and training to the complex and fast-changing world of work. It matches young people with job opportunities, fostering entrepreneurship and empowering a generation to fully engage with their societies as active citizens.

UNICEF leadership

The UNICEF Strategic Plan 2018–2021 identifies partnerships as a major strategy for achieving the goals and targets specified in the Plan. Therefore, UNICEF and a diverse group of stakeholders from public, private and civic spheres, including young people, are developing Generation Unlimited to uncover and scale up solutions, unlock investments and unleash the voice and participation of young people in shaping a brighter future. While UNICEF will continue to focus on ages 10-19 in line with the 2018–2021 Strategic Plan results, this diverse group of partners, each bringing their expertise to the table, will expand support for young people as they make the transition from adolescence to adulthood.

Country level

- transformative change is only possible when there is an open platform for dialogue and partnership, where national governments, the private sector, international organizations and civil society unite with young people behind a shared vision of progress;
- Generation Unlimited is developing country-level partnerships to support bold investment agendas in secondary education, skills, transition to work, entrepreneurship and jobs; GenU aims to build on local and national efforts and tailor plans to meet the key priorities, needs and conditions of each country;
- GenU provides UNICEF country offices with the opportunity to leverage partnerships, networks and resources to deliver on our Strategic Plan results; it is not about opening new areas for UNICEF to work, but rather leveraging GenU platforms to help UNICEF accelerate its work on adolescents and make new connections with relevant actors in labour and employment;
- given the secondary education and skills focus of GenU, UNICEF country office education teams working in these areas will have a specific role to assess the opportunity to capitalise on GenU as a partnership platform to improve scale, sustainability and impact across the key GenU areas of secondary education; skills development for employability, entrepreneurship and citizenship; empowerment of adolescents and young people; and school to labour market transition.
- Further information is available online here: https://www.generationunlimited.org/.

Private sector engagement for secondary education and skills development

Winning support for the cause of children from decision-makers and the wider public

Building on the rights- and strengths-based approach detailed previously and on the evidence of the importance of education opportunities for adolescents, particularly the most marginalized, UNICEF has a critical role to play in the dialogue with government, partners and the wider public.

Developing and leveraging resources and partnerships for children

Given the complexity of secondary education, UNICEF at global, regional and country level can act as a convener around the education needs of adolescents. UNICEF has the ability to develop and advocate for evaluated, high quality programmes to go to scale in partnership with governments. Coordination is key, as impact will not be achieved through small and unconnected projects to provide education to marginalized adolescents. Given that 90 per cent of young people in developing countries will work in the informal sector and may be self-employed, the subject of entrepreneurship is a growing area of programming for UNICEF. UNICEF can consider how it may add value to this space in coordination with other partners.

Leveraging the power of business and markets for children

Private sector is a key stakeholder in efforts to improve technical and vocational programme relevance for the local labour market, including the capacity development of teachers and trainers.[83] They can provide opportunities for adolescents to learn about the world of work and provide internships and greater training opportunities for young people to develop their skills. Private sector can also play a role in innovate technology development to improve the reach and the quality of secondary education, whether formal or non-formal pathways. In addition, the issue of the growing privatization of secondary education in order to meet demands means improving interaction between government and private schools to ensure quality and equity in access and learning.

United Nations working together

Within secondary education, other UN agencies are actively working in the area of upper secondary and technical and vocational streams, as well as alternative pathways for adolescents. All UN agencies which work on system-wide improvements in the education system can play a role in improving the equitable access, quality and skills development of secondary education and education for marginalized adolescents. Examples include UNESCO, UNHCR, and ILO, which work at global and country level on secondary education and skills programmes, the school-to-work transition and youth employability programmes.

Endnotes

1. In line with the UIS analysis of achievement of SDG4, children of one year before primary age, primary age, or lower and upper secondary age who are not enrolled in education are considered out-of-school children.
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25. To estimate learning projections at the secondary level, the model uses a minimum benchmark of a "low" level of achievement in the PISA math score. Math is chosen because it allows us to include the TIMSS grade 8 assessment (which measures math and science but not reading). Regional assessments are then linked to international assessments through identification of a common benchmark and matching process. For countries where secondary learning data is not available, a statistical predictive model is used which builds on earlier modelling work (from UNESCO GEMR and others) to identify determinants of learning outcomes. The percent of students reaching learning benchmarks is projected forward for each country according to historical trends.
26. To calculate the costs of a vision scenario, we estimate teacher salaries, non-salary recurrent costs, construction costs, and support for marginalized children. Teacher salary estimates are based on UIS, Pole de Dakar and ILO salary data analysis. The salary estimation is based on the highest performing education systems in learning. For some countries, this implies a dampening of salary growth, but for many, it implies a strong salary increase. Non-salary recurrent costs include teaching materials and a range of other interventions and support, and their projected amount is based both on the highest-performing education systems and a meta-meta-analysis of field research on interventions that improve learning and equity.

Construction costs are based on regional and country studies of classroom construction costs. Finally, support for marginalized pupils in a vision scenario is based on the prevalence of poverty in each country, assuming that marginalized children will require an additional 30% per student costs at lower secondary and 40% at upper secondary level.

27. IMPORTANT NOTE: All projections for access, learning and financing were calculated prior to the global pandemic in 2020. Given the substantial impact of the crisis, it is likely that some costing figures will have grown (e.g. support for marginalized students), and governments and programme implementers are advised to re-estimate the items in Table 3 to account for the impacts of the crisis. The figures presented here, however, are useful guidance for programme design and budgeting priority by context.
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