

ADOLESCENCE IN THE TIME OF COVID-19: EVIDENCE FROM BANGLADESH

Sarah Baird¹, Jennifer Seager², Shwetlena Sabarwal³, Silvia Guglielmi⁴, and Maheen Sultan⁵

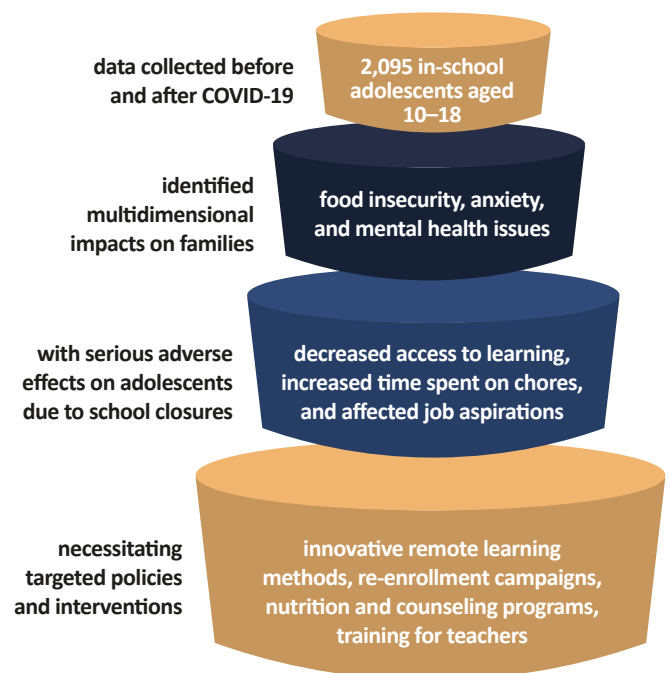
SUMMARY

This note examines the effects of COVID-19 and subsequent economic and educational disruptions on adolescent well-being in Bangladesh. The analysis is based on data from 2,095 in-school adolescents aged 10–18 collected pre-COVID-19 (February–March 2020) through a field survey for an ongoing impact evaluation, and a follow-up virtual survey undertaken early in the pandemic (May–June 2020). Findings show large household-level economic impacts associated with increased food insecurity, anxiety, and mental health issues among adolescents. In addition, school closures have decreased adolescents' access to learning, increased time spent on household chores, and affected future job aspirations. The impacts are particularly large for girls and for adolescents from more vulnerable households. Policy makers need to consider policies that facilitate school return, targeting girls and the most vulnerable. They also need creative school-based programming to address the likely long-run physical and mental health effects of COVID-19 on young people.

BACKGROUND

COVID-19 has rapidly disrupted lives across the globe, likely resulting in multidimensional effects on young people's well-being in the short- and long-run. This is particularly the case for education. School closures related to COVID-19 will not only have immediate direct effects on learning outcomes; they may also foster sustained impacts on education, labor market outcomes, and broader welfare (Rogers and Sabarwal 2020). In Bangladesh, where higher secondary school dropout rates for girls are at least partially driven by social and cultural constraints—including early marriage, household responsibilities, lack of access to appropriate information about sexual and reproductive health, mental health issues, and school-based violence that includes sexual harassment (Sosale, Asaduzzaman, and Ramachandran 2019)—the COVID-19 pandemic threatens to undermine many of the recent gains in girl's education and to stunt further progress (see Box 1 for more on COVID-19 in Bangladesh).

While the government has aired video classes for grades 6 to 10 on its Shangsad TV channel, uptake has been low (Asadullah 2020; Biswas et al. 2020). Consequently, the education of school-goers



¹George Washington University and GAGE, ²George Washington University and GAGE, ³The World Bank, ⁴GAGE, and ⁵BRAC Institute of Governance and Development and GAGE.

has been left largely to the discretion of students and their parents. Preliminary global evidence suggests that adolescents who were enrolled in school when the pandemic hit may now engage in paid work to supplement family income, take on larger roles in the household, become pregnant, or face pressure to marry, all factors that will constrain school return when the schools reopen (Mendez Acosta and Evans 2020). The expected gendered impact of school closures echoes previous evidence from crises, which highlights increased burden of care-work for women, disruptions in access to sexual and reproductive health services, and increases in domestic violence for women and girls (Smith 2019, Peterman et al. 2020, Wenham et al. 2020).

In addition to school closures, the large negative economic shock experienced by most households (Genoni et al. 2020) may worsen the education impacts of COVID-19 in Bangladesh. These economic impacts threaten food security, which is particularly important for adolescents and may be acutely felt in Bangladesh, where 25 percent of the population was food insecure and 36 percent of children under-five were stunted even before COVID-19 (Alderman et al. 2006, Frankenberg et al. 2017, Arndt et al. 2020, Bene 2020, USAID 2020). Moreover, the current crisis is likely to heighten risks for mental distress, further affecting future trajectories in education and labor (Golberstein, Gonzales, and Meara 2019). Given that half of all mental illnesses begin by age 14 (WHO 2020, Kessler 2007), the COVID-19 pandemic is on the verge of creating a global mental health crisis among youth (Fegert et al. 2020).

This brief explores the impact of COVID-19 on the well-being of adolescents in Bangladesh who were attending grades seven and eight in Chittagong and Sylhet at the time of the school closures and explores heterogeneity of impacts according to gender and the vulnerability status of the household.

DATA AND METHODOLOGY

This brief uses two rounds of data on over 2,000 adolescents and their female primary caregivers collected as part of the Gender and Adolescence: Global Evidence (GAGE) study implemented with support from the South Asia Gender Innovation Lab (SAR GIL).¹ The first round of data collection took place during February and March of 2020 through face-to-face interviews with a random sample of adolescents attending grades seven and eight in public and semi-private (Monthly Pay Order, or MPO) schools in Chittagong and Sylhet divisions.² The first round was a baseline for an ongoing impact evaluation, with programming supported by the World Bank. The second round of data collection was conducted using computer-assisted telephone interviewing in May and June 2020. Enumerators attempted to recontact

BOX 1: COVID-19 IN BANGLADESH

After identifying the first cases of COVID-19 in the country on March 8, the government implemented restrictions on mobility and social gatherings to control the spread of the virus. By March 17, when the country had eight confirmed cases, the government declared a school closure that ultimately remained in place throughout the current academic year. By March 24, the government declared a 10-day nationwide lockdown to limit the spread of COVID-19. This lockdown was extended through May 30.

COVID-19 Survey administration by Gender and Adolescence: Global Evidence (GAGE) began in early May 2020, when Bangladesh had identified approximately 12,000 cases of COVID-19. During the survey administration period, which ended on June 28, 2020, this number jumped to 137,787 cases.¹ As of October 8, 2020, Bangladesh had reported 374,592 cases and 5,460 deaths from COVID-19. In response, the government has repeatedly extended school closures through the end of October as case counts continue rising.²

Notes: (1) Johns Hopkins University Coronavirus Resource Center, October 8, 2020. <https://coronavirus.jhu.edu/map.html>. (2) Menon, S. Coronavirus: How the lockdown has changed schooling in South Asia. BBC News, September 21, 2020. <https://www.bbc.com/news/world-south-asia-54009306>

all adolescents surveyed during the first round, using phone numbers obtained during the first round of data collection and were able to reach 2,156 of the original adolescents, a 97 percent recontact rate.³ The respondents were asked questions related to the economic effects of the shock at

¹ This research obtained ethical clearance from the Innovations for Poverty Action Institutional Review Board (#15439) and the George Washington University Office of Human Research – Institutional Review Board (#071721).

² Monthly Pay Order (MPO) schools are private schools that receive funding for payroll from the government of Bangladesh and follow the official government curriculum. The data collected was planned to survey a random sample of 4,932 adolescents across a representative sample of 251 schools (160 MPO schools and 91 government schools). The schools were randomly selected from a full list of both school types operating in each division provided by the Bangladesh Ministry of Education. Data collection was interrupted on March 18, 2020, when schools were closed as part of a broader government shutdown, when data had been collected from 45 percent of the intended sample. See Seager et al. (2020) for detail on the sample and survey instruments.

³ Phone penetration is high among the sample; 98.9 percent of adolescents in the sample live in households with at least one cell phone.

⁴ For the full survey instrument: <https://www.gage.odi.org/publication/covid-19-phone-survey-round-1/>

the household level, as well as on various dimensions of adolescent well-being.⁴

Specifically, this brief uses data for 2,095 adolescents and their primary female caregivers who responded to all items used to generate a measure of household vulnerability that we use to understand the impact of COVID-19 on more vulnerable households.⁵ It also draws on in-depth qualitative data gathered from 39 adolescents, selected from the quantitative sample, during July and September 2020. At the time of the baseline survey, adolescents were 12.8 years old on average, 49.8 percent were in seventh grade with the rest in eighth grade. Seventy-five percent of our sample is in Chittagong with the rest in Sylhet and 25 percent attended a government school compared to 75 percent in an MPO school before COVID-19.

We examine the impact of COVID-19 on earnings and food security of the households these adolescents live in, and on their education, future job aspirations, and mental health. Box 2 summarizes the key measures used in this brief. We use regression analysis to explore heterogeneity in the impact of COVID-19 according to household vulnerability status, controlling for pre-COVID-19 measures (or related measures) of our outcomes of interest.⁶ We measure household vulnerability across five vulnerability domains following Acharya and Parwal (2020): socioeconomic, demographic, housing and hygiene conditions, availability of health care, and epidemiological.

FINDINGS

ECONOMIC IMPACTS OF COVID-19 ON HOUSEHOLDS

Our data show that the economic impacts of COVID-19 have been severe. Half of the sampled households report losing employment permanently or temporarily due to COVID-19, with 83 percent of households reporting some income loss. As described by a 13-year-old girl in Chittagong rural district, “we had to get by with a lot of struggle. During the lockdown, my dad couldn’t ride his rickshaw so he couldn’t manage our household expenses.” The economic impacts have led to economic concerns—65 percent of households worrying that they will not be able to meet basic household needs and only 58 percent of households being able to buy essential food items in the week before the virtual survey. A 14-year-old-girl from

⁵ Unreported analysis that uses regression to predict inclusion in the analysis sample shows that there are no significant differences between the round one random sample and the sample of adolescents included for the analysis in the brief.

⁶ All analysis uses survey weights to make the statistics representative of adolescents in grades seven and eight in our study areas.

BOX 2: OUTCOME MEASURES

Household Income and Food Security

- Household lost at least some income due to COVID
- Household was able to buy essential food items over the past 7 days
- Household cut back quantities served per meal to adolescents in the household during last 4 weeks
- Dietary diversity reduction score (0-16)
The total number of food groups in which food consumption was reported to have been reduced post-COVID-19 across 16 food categories, as reported by the adult female primary caregiver
- Adolescent reports that meals are less likely to contain meat, chicken, fish, or eggs compared to before COVID-19

Adolescent Education

- Adolescent reports that school is providing learning support during school closure
- Adolescent reports that s/he has been in contact with a formal schoolteacher in the last 7 days
- Adolescent reports that family is providing learning support for formal schooling during school closure
- Adolescent reports spending same or more hours per weekday studying/learning
- Adolescent wants to return to school when restrictions end
- Adolescent thinks s/he will not be able to return to school when restrictions end
- Adolescent spends more time on household chores and/or childcare since Covid-19 began

Adolescent Employment Aspirations

- Adolescent believes nothing will interfere with job aspiration
- Adolescent believes financial constraints will interfere with job aspiration

Adolescent Mental Health

- Primary Health Questionnaire-8 score (PHQ-8)
A measure of current depression in the general population that uses an eight-item scale (Kroenk et al. 2008)
- Adolescent reports being completely or moderately scared/fearful about Covid-19
- Adolescent reports being completely or moderately worried/anxious about Covid-19

Source: GAGE COVID-19 Phone Survey (round 1). <https://www.gage.odj.org/publication/covid-19-phone-survey-round-1/>

Chittagong urban district recounted, “Changes in income and earning have taken place—[we have] less than before.”

These negative impacts are concentrated among households that were already more vulnerable before the onset of COVID-19. As shown in Table 1, a one unit increase in the vulnerability score is associated with the household being four percentage points (4.8 percent compared to the mean) more likely to have lost some income due to COVID-19 and 4.6 percentage points (8 percent) less likely to be able to buy essential food items.

The economic disruption has significantly increased food insecurity, with 34 percent of households reporting cutting back food to adolescents in the household in the past four weeks (compared to only 13.5 percent reported this pre-COVID-19). Likewise, 59 percent of adolescents reporting that their meals are less likely to contain protein after COVID-19, and a reduction in dietary diversity, with the most households (75 percent) reporting reductions in consumption of meat.

There are no differences in the likelihood of the household reporting cutting back meals or in the dietary diversity score according to the gender of the adolescent. As a 17-year-old girl in eighth grade in Chittagong notes “At that time (lockdown) there was no money coming in. Suppose for the morning’s breakfast, we would not get anything. We’d have to eat rice, leftover rice soaked in water [Bangla: panta bhaat]. And in the afternoon, we wouldn’t get to eat anything at all because there were financial problems, that’s why. Before I would

eat Horlicks, cake biscuit, and things in the morning and the afternoon. We’d eat these.” Similarly, a 13-year-old girl from Chittagong rural district explained, “[My father] couldn’t bring rice because of the [earning loss during] lockdown. I would eat lentils. He would try to bring this and that, but [some days he couldn’t bring anything at all]. When he couldn’t bring it, we wouldn’t eat. When he would bring it, we’d eat then.”

Once again, regression results in Table 1 suggest that impacts are concentrated among more vulnerable households, with a one unit increase in the vulnerability score associated with a 6.7 percentage point (20 percent compared to the mean) increase in the likelihood of having cut back food to adolescents in the household, an increase in dietary reduction scores by 0.743 food groups, which translates to 9.2 percent increase, and an increase in the likelihood that adolescents report decreased protein in their meals by 6.6 percentage points (11 percent). See the figures below for a summary by gender (Figure 1) and vulnerability (Figure 2) across all outcomes.

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Table 1: Economic impacts of COVID-19 at the household level

	=1 if lost at least some income due to COVID	=1 if household able to buy essential food items	=1 if household cutback food to adolescents	Dietary Diversity Score	=1 if adolescent meal less likely to contain protein
Sum of 11 indicators of vulnerability (0-11(8))	0.040*** (0.010)	-0.046*** (0.015)	0.067*** (0.013)	0.742*** (0.088)	0.066*** (0.010)
Female	0.024	-0.007	0.014	-0.485***	-0.053*
=1 if pre-COVID-19 main source of income wage or salary employment	0.027 (0.024)				
Pre-COVID-19 Household FAO Food Insecurity Experience Scale (0-8)		-0.043*** (0.009)			
=1 if household cut back food to adolescents pre-COVID-19			0.187*** (0.054)		
Pre-Covid-19 Dietary Diversity score (0-6)				0.068 (0.167)	
Pre-Covid-19 number of meals that contained animal protein yesterday					-0.029 (0.021)
Outcome mean	0.834	0.579	0.337	8.07	0.592
Number of observations	2,071	2,039	2,095	2,091	2,094

Note: .01- ***; .05- **; .1- *; In addition to those shown, all regressions include controls for grade of the adolescent, whether the caretaker was fasting yesterday to account for the survey period taking place during Ramadan, the size of the household, and the location of the household in Chittagong or Sylhet. Standard errors are clustered at the school level and sampling weights are used in all models.

IMPACTS OF COVID-19 ON ADOLESCENT EDUCATION AND EMPLOYMENT ASPIRATIONS

Since the onset of COVID-19, education in Bangladesh has been seriously disrupted, with schools officially closed since March 17, 2020. While almost all adolescents report doing something to continue learning while schools are closed and 90 percent of adolescents report receiving support from family for schooling, only 10.5 percent are getting any support from schools and only 22 percent have been in contact with a schoolteacher.

The majority of students, 84.7 percent, report that they are spending time studying with their own books, although economic hardship also seems to have negative effects on self-guided study as expressed by a 13-year-old girl from

Chittagong rural district: “I couldn’t study properly because of my dad’s struggles—he couldn’t buy me guidebooks, so I’d feel bad.” As a 13-year-old girl from Sylhet notes: “Other times my stud[ies] go really well... But now it’s not going that well... I do not know how much I will be able to study now.”

Only 7.9 percent report watching classes on Shangsad TV as the primary activity they are doing to continue schooling and only 9.4 percent report using any media to support learning. Interestingly, girls are more likely to report using media (internet, television, or radio) to support their learning, with 12.4 percent of girls reporting using media compared to only 4.7 percent of boys. The reasons given by adolescents for lack of engagement with Shangsad TV included poor technology, limited access, and feelings that educational

Figure 1: Average impacts on adolescents (male vs. female)

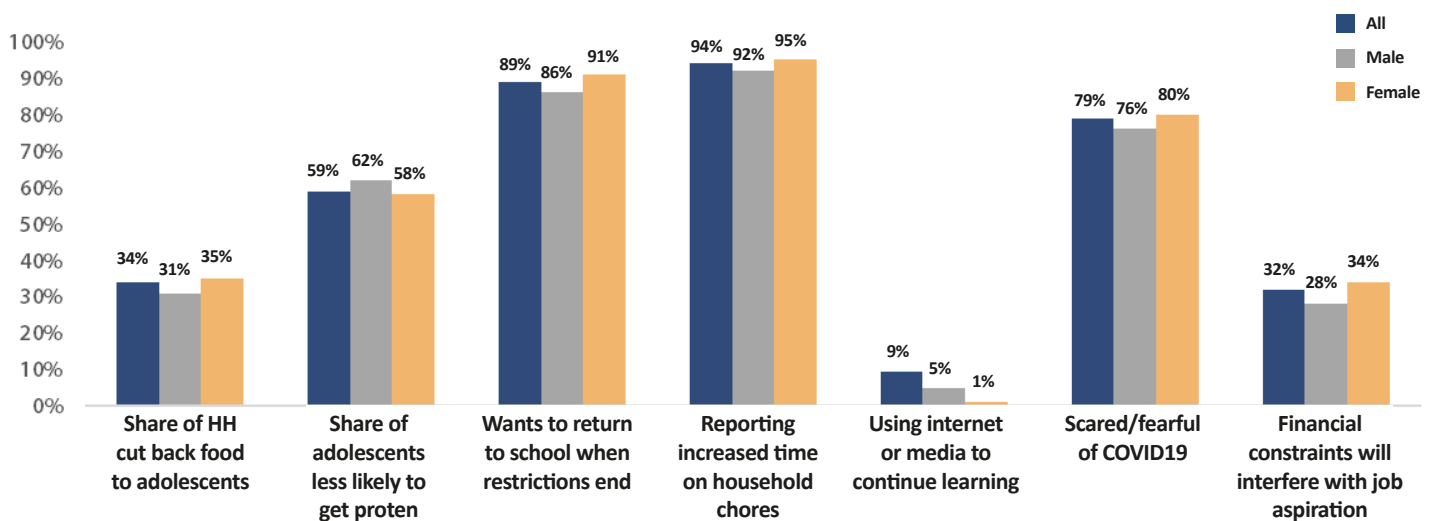
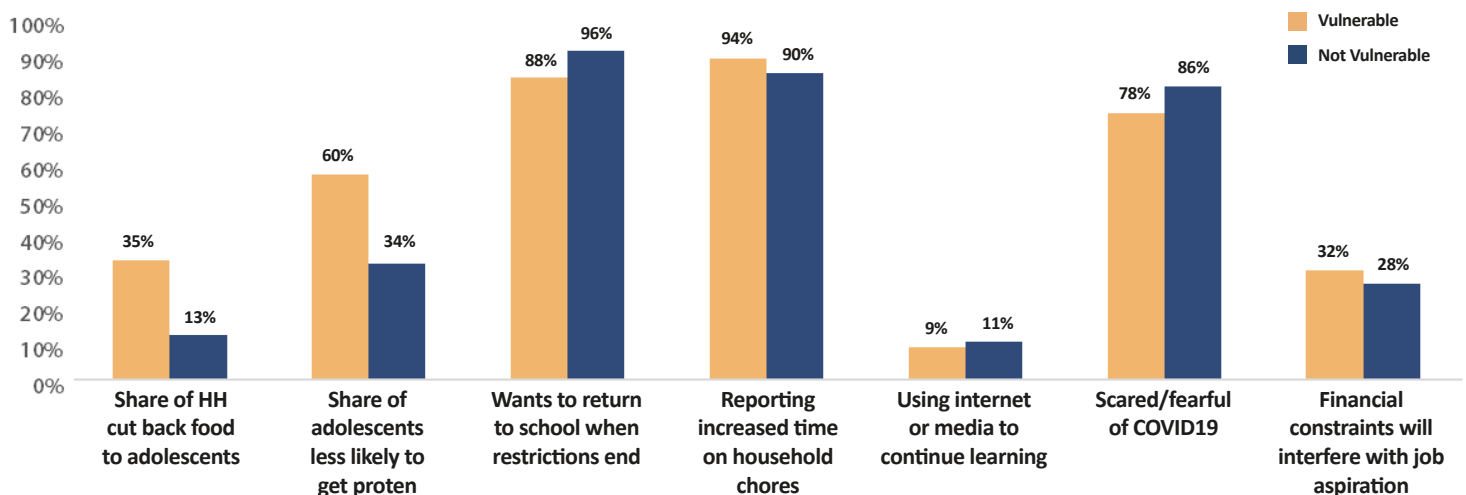


Figure 2: Average impacts on vulnerable and not vulnerable households



content is not conveyed well. As stated by a 14-year-old girl: “We have a television in our home but not in my room. Can you always go to someone else’s room to watch television? That’s why I didn’t watch those TV classes. Besides, often there is no electricity or connection to the cable line.... We lose electricity connection every time it is cloudy outside!” Similarly, an older boy mentioned: “We have a television [but] actually, our TV doesn’t output any sound. So, I don’t get to watch the Shangsad TV channel.” With respect to the teaching modality, a 12-year-old girl said: “I didn’t like [the TV classes] much because... they can’t really explain everything. If we were in front of teachers, they would have been able to explain the things we didn’t understand. Now, the things we don’t understand, they can’t really explain to us.”

Support for continued education varies according to household vulnerability status, as confirmed by regression results in Table 2. A one unit increase in the vulnerability score is associated with adolescents being 1.6 percentage points (15 percent) less likely to receive support from schools, 1.9 percentage points (9 percent) less likely to have had contact with a teacher and 1.9 percentage points (2.1 percent) less likely to be receiving family support

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for learning. This has implications for growing inequality in Bangladesh, with households that were vulnerable before COVID-19 faring worse during and after the crisis.

Around half of adolescents report that they are spending less time on education than before the lockdown, with 94 percent reporting increased time on household chores or childcare. Although the difference is not statistically significant, there is evidence that girls are three percentage points more likely to be spending increased time on household chores and childcare since COVID-19 restrictions began. As expressed by a 14-year-old boy: “[I would help my mother] with the light works. [But] my sister, she would cook curries and do everything else.” This is particularly concerning as girls were already spending twice as much time on household chores as boys before COVID-19.

Twenty-five percent of primary female caregivers are concerned that adolescents will not return to school when schools reopen, and this did not vary by gender. While adolescents are not overly concerned that they will return to school and also largely want to return to school, with 89 percent reporting so, there are some gender differences along these dimensions. Girls are more likely than boys to report wanting to return to school (91 percent of girls versus 86 percent of boys, $p < 0.05$) and are 77 percent less likely than boys to believe that they will not be able to return to school (0.8 percent of girls versus 3.6 percent of boys, $p < 0.01$). In addition, both male

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Table 2: impacts of COVID-19 on education and employment aspirations of adolescents

	=1 if school support	=1 if teacher contact	=1 if family support	=1 if use media to learn	=1 if study same or more	=1 if want to return to school	=1 if think cannot return to school	=1 if more chores now	=1 if nothing will interfere with job aspiration	=1 if financial constraint will interfere with aspiration
Sum of 11 indicators of vulnerability (0-11(8))	-0.016*** (0.006)	-0.019* (0.010)	-0.019** (0.008)	-0.07 (0.008)	-0.016 (0.011)	-0.019* (0.010)	-0.001 (0.003)	-0.006 (0.005)	-0.021** (0.011)	-0.001 (0.015)
Female	0.006 0.018	-0.005 0.026	-0.023 0.017	0.076*** 0.015	-0.020 0.037	0.053*** 0.023	-0.027** 0.012	0.022 0.013	0.009 0.031	0.040 0.028
Share of time spent studying pre-Covid-19	-0.069 0.152	0.577** 0.228	0.038** 0.146	0.070 (0.119)	0.005 (0.184)	0.010 0.144	0.025 0.052			
Share of time spent on chores pre-Covid-19								0.144 0.187		
=1 if caretaker reports no constraint to achieving career pre-Covid-19									0.090** (0.038)	-0.094** (0.037)
Outcome mean	0.105	0.220	0.896	0.094	0.439	0.887	0.019	0.935	0.483	0.282
Number of observations	2,078	1,879	2,079	2,073	2,079	2,079	2,084	2,095	2,062	2,062

Note: 01- ***; 05- **, 1- *; In addition to those shown, all regressions include controls for grade of the adolescent, whether the caretaker was fasting yesterday to account for the survey period taking place during Ramadan, the size of the household, and the location of the household in Chittagong or Sylhet. Standard errors are clustered at the school level and sampling weights are used in all models.

and female adolescents exhibit concern about their ability to achieve job aspirations. A 13-year-old boy from a Sylhet rural district discussed his plans for learning a trade during lockdown, to circumvent boredom and worry for the future, “I’m wasting my time in this period just doing nothing as I’ve no study or any other tasks. So, by [helping my uncle in his grocery shop] I can learn about this work.” Less than half of adolescents (47 percent) believe that nothing will interfere with their job aspirations and nearly a third (31.6 percent) believe that financial constraints will interfere.

Again, these impacts vary according to household vulnerability status, pointing toward possible growing inequality in adolescent outcomes. Adolescents from more vulnerable households, who are receiving less support for learning, are also less likely to report wanting to return to school when it reopens than adolescents in better-off households. As shown in Table 2, a one unit increase in household vulnerability is associated with a 1.9 percentage point (2.1 percent) reduction in likelihood that an adolescent wants to return to school. Additionally, these adolescents are 2.1 percentage points (4.3 percent) less likely to believe that nothing will interfere with attaining their job aspiration, despite that there is no difference in the likelihood of aspiring to professional jobs before COVID-19 across vulnerability status.

IMPACTS OF COVID-19 ON ADOLESCENT MENTAL HEALTH

Finally, stress and worry are also increasing in the household and community. Eighty percent of adolescents report that household stress increased since the onset of COVID-19 with over 75 percent of adolescents reporting either that they are at least moderately scared about COVID-19 or worried

about it. Reported rates of moderate to severe depression as measured by the PHQ-8 are low among adolescents in this population, with about 1 percent of adolescents experiencing depression (both before and after COVID-19).

Evidence indicates that boys are faring worse than girls, with an average PHQ-8 score of 1.96 compared to 1.64 among girls ($p < 0.10$). Qualitative data point to mobility restrictions during lockdown affecting boys more, as girls are more accustomed to staying home. A 14-year-old girl from Sylhet urban district explained, “boys go out, they always go out. But girls don’t go out much. [Boys went out before the lockdown]... girls go much less, I mean... girls go out during the time of Eid.”

As shown in Table 3, adolescents from more vulnerable households have PHQ-8 scores that are 16 percent higher on average post-COVID-19 than adolescents from households that are one standard deviation higher on the vulnerability score.

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This finding suggests that these adolescents are feeling the strain from household income loss and food insecurity that has come about as a result of COVID-19.

DISCUSSION AND POLICY IMPLICATIONS

In response to the COVID-19 pandemic, the government implemented a country-wide lockdown from March through June, including the closure of schools, which remain closed as of October. While these measures were taken to mitigate the spread of the disease, the resulting negative impacts of economic hardship, school closures, and negative health consequences have the potential to undo recent progress in gender equality in educational attainment and economic opportunity in Bangladesh.

Our findings show that in the 2-3 months after school closures, adolescents are already facing large impacts on food security and education. These impacts are larger for households that were more vulnerable before the COVID-19 pandemic. Adolescents are also spending significantly more time on household chores and caring for others, tightening time constraints, and further restricting their ability to continue learning.

Remote learning activities through media outlets will

Table 3: Impacts of COVID-19 on mental health of adolescents

	PHQ-8 score	=1 if moderately scared about Covid-19	=1 if moderately worried about Covid-19
Sum of 11 indicators of vulnerability (0-11(8))	0.144** (0.068)	0.003 (0.011)	0.005 (0.011)
Female	-0.443* (0.227)	0.040 (0.039)	0.027 (0.034)
PHQ-8 score pre-Covid-19	0.153** (0.032)	0.006 (0.006)	-0.007 (0.005)
Outcome mean	0.105	0.896	0.483
Number of observations	2,078	2,079	2,062

Note: .01- ***; .05- **, 1- *; In addition to those shown, all regressions include controls for grade of the adolescent, whether the caretaker was fasting yesterday to account for the survey period taking place during Ramadan, the size of the household, and the location of the household in Chittagong or Sylhet. Standard errors are clustered at the school level and sampling weights are used in all models.

be insufficient to meet the needs of poor families. Our data show that less than 10 percent of adolescents watch the government-supported Shangsad educational TV programming and less than 10 percent use media to continue learning, likely due to poor access to technology in the households. Therefore, such continuity programs should adapt to provide educational materials that do not rely on access to media and be paired with economic relief packages, such as provision of staple food goods and stimulus payments.

After schools reopen, it will be important for the government to implement re-enrollment campaigns to bring adolescents, especially adolescent girls, back to school. Such campaigns should include accommodations for students who are at risk for not returning, particularly girls who are pregnant or married, awareness-raising campaigns to the community and re-engagement of parents into school governance, and financial incentives for re-enrolling both to offset costs of books and uniforms and to provide additional economic support to struggling households (Rogers and Sabarwal 2020). As a part of any re-enrollment campaign and to address the large increase in food insecurity, schools should ramp up feeding programs to help mitigate nutritional shortfalls that adolescents may have experienced during the closures (Rogers and Sabarwal 2020). These programs should draw on locally produced food products as best possible to additionally serve to bolster local economies (Tembon 2016).

Finally, the psychosocial toll of coping with pandemic stress should not be dismissed. Communities and schools should consider developing counseling programs for families and adolescents who may have developed anxiety or depression during the pandemic, including loss of employment, restrictions to mobility and interactions with friends and loved ones, and possibly even the loss of friends and family to the disease. As schools reopen, training programs will be needed both to prepare teachers for the increased needs of their students and to give them the tools to better support their students (Rogers and Sabarwal 2020, UNRW 2013).

It is also critical to continue monitoring learning activities of adolescents and develop new and innovative ways to deliver educational content remotely while considering alternate ways of delivering educational material to the most vulnerable households, who may not own televisions or phones or have internet access. Moreover, resources must be allocated toward assisting families and students through the transition back to school, continuing the positive trajectory in educational inclusion that Bangladesh has achieved in recent years and preventing the loss of a generation of students.

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APPENDIX

Table A1 shows the variables that make up the Vulnerability Index Score (mean=2.7, sd=1.39). Seventy-eight percent of households have at least one of a list of higher value assets, 85 percent of households have their own toilet, and 95 percent of adolescents report having access to soap and water to wash their hands. Only 22 percent of households report having a household member with a chronic condition and only 4 percent of household have at least one woman who is or who has recently been pregnant, also indicating relatively low rates of pre-existing conditions.

Table A1: Vulnerability Index Components

	mean	sd
Vulnerability Index Score (higher more vulnerable)	2.707	1.387
=1 if household head has Senior School Certificate (SSC) or higher	0.216	0.411
=1 if household has at least one high value asset	0.783	0.413
Urban location	0.149	0.356
=1 if household members over 60 years old	0.296	0.457
# of rooms in house	3.112	1.436
=1 if household has own toilet	0.853	0.354
=1 if adolescent has soap and water	0.948	0.221
=1 if distance from healthcare facility is a big problem	0.190	0.393
=1 if lack of money for health advice/treatment is a big problem	0.225	0.417
=1 if any household member has a chronic condition	0.224	0.417
=1 if household has at least one high value asset	0.037	0.189

Source: Authors

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