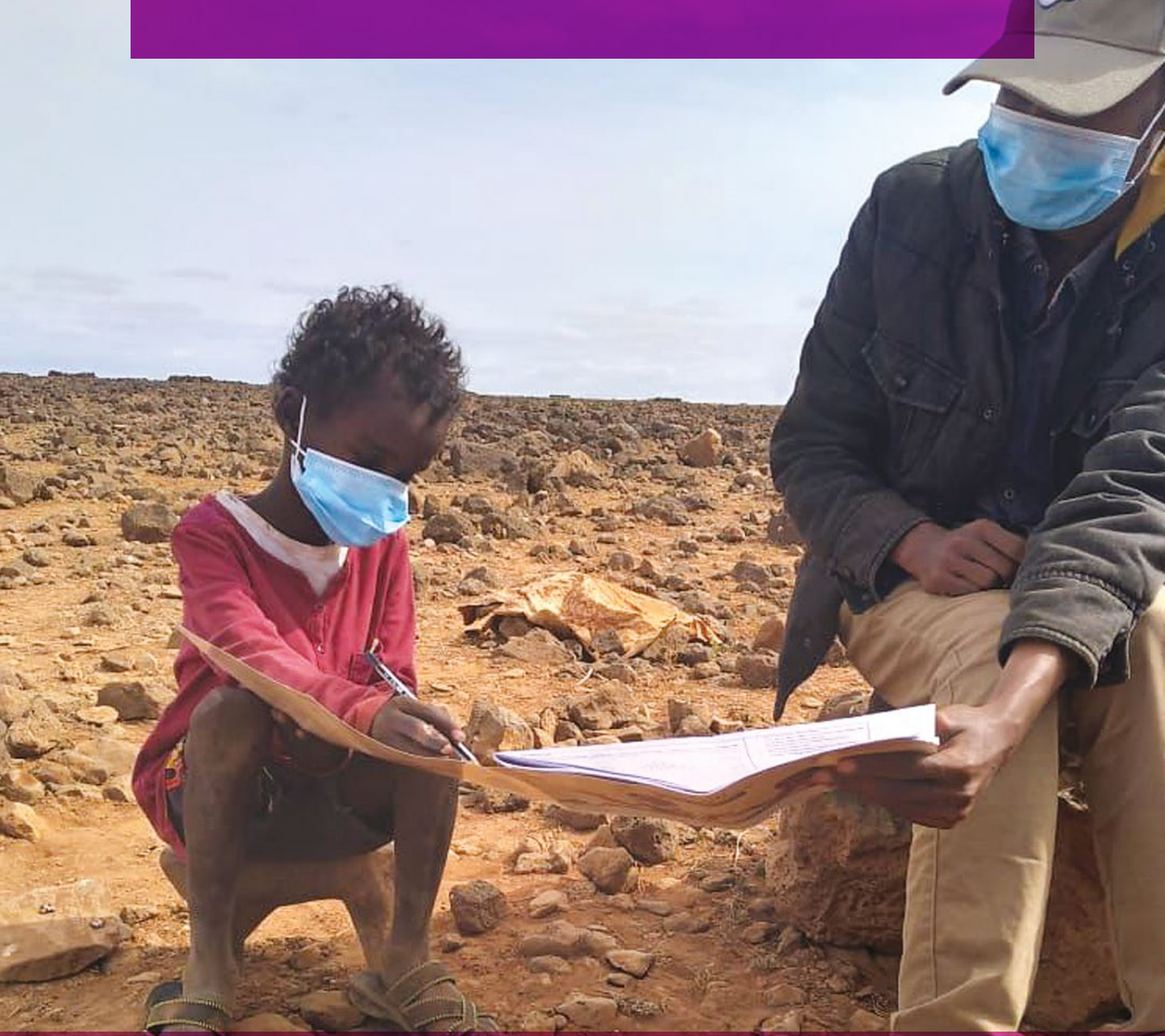

Are ALL Our Children Learning?

Facts and figures for evidence-based building back better!

Uwezo 7TH Learning Assessment Report | 2021

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The Assessment was supported by:

1. Wellspring Philanthropic Fund
2. Echidna Giving
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To cite this report:

Uwezo (2021): ***Are All Our Children Learning?*** *Uwezo 7th Learning Assessment Report. Nairobi*: Usawa Agenda. © Copyright Usawa Agenda 2022

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Forward

Counting down the watershed decade for education

By Emmanuel Manyasa

The Uwezo 2021 learning assessment report could not have come at a more pivotal moment in the education sector. It comes as we count down the last decade of two important national and global education aspirations. The world is counting down the last decade of the global agenda 2030 whose educational aspiration as articulated in the SDG 4 is to: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. " Simultaneously, Kenya is also counting down the last decade of the grant national Vision 2030, in which education is considered one of the main enablers of national development. The overall educational goal of Vision 2030 is: offer Kenyans a globally competitive, quality and relevant education and training.

This report also comes out as the country is preparing to transition the pioneer group of the competency-based curriculum out of primary education and into junior secondary at the end of 2022. The implementation of the new curriculum has elicited heated debate, most of it not focused on its technical viability.

The report is also coming out as the first independent assessment of learning in the country after the outbreak of COVID-19 that forced the country to shut schools for 9 months. This report thus highlights a number of things that could help advance three discourses: It offers insights into the impact of COVID-19 on school enrolment for different groups of children, especially girls and children with disabilities. It also highlights learning

achievement in the new era (CBC era), to help shift the focus of the debate around the new curriculum to the issues reflected in the goal of the ongoing curriculum reforms. It similarly offers us the opportunity to reflect on the road towards achievement of SDG 4, which Kenya is a subscriber to.

It is my expectation that everyone who reads this report, whether through the lenses of the national goals of education, or the global vision of an equitable quality education for ALL, will find it worth of dispassionate engagement with. The data upon which this report is based will also be shared once we have gotten the right advice on how to do without breaching the data protection law that recently came into effect in Kenya. Once we share the data, we will encourage academics, graduate students and other researchers to mine it for non-profit courses, to generate further engagement and enhance its utility.

Acknowledgement

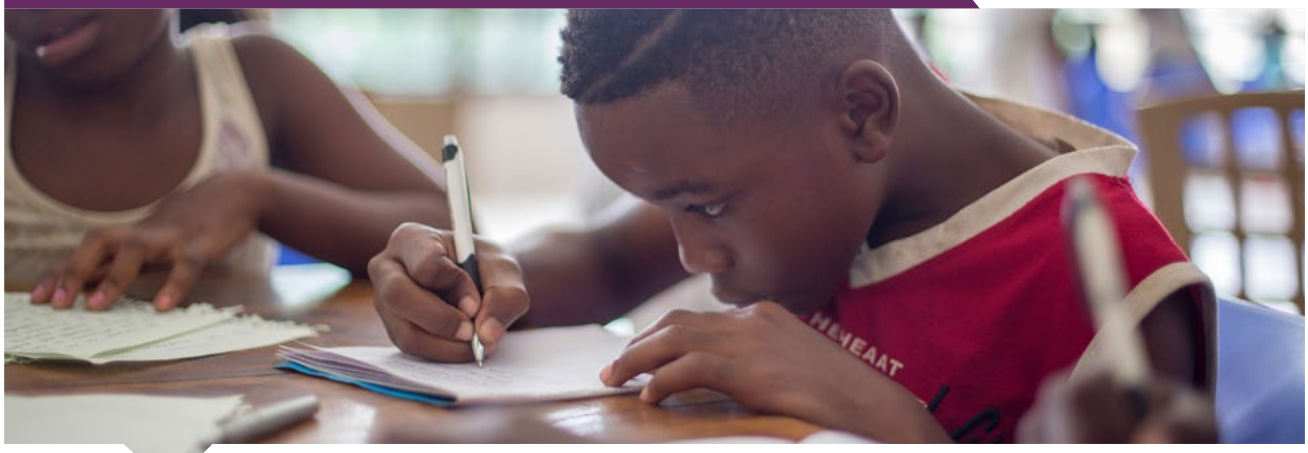
The completion of this report brings to fruition the dedicated efforts of a wide range of staff, volunteers, consultants and partners. We wish to acknowledge everybody who offered his or her time, expertise and resources to support the successful implementation of the 2021 Uwezo assessment in Kenya. Our sincere apologies in advance for not being able to mention everyone by name. The following, however, stand out in their unique contributions to the 2021 assessment:

- **The Usawa Agenda board members:** Mr. Henry Kilonzo (Chairman), Prof. Gituro Wainaina, Mr. Naman Owuor, Ms. Florence Syevuo, Dr. Wilson Wasike, Mrs. Esther Wairimu and Ms. Joy Claudia Anami.
- **The Usawa Agenda Secretariat:** Dr. Emmanuel Manyasa, Ochi Boaz, Cycus Baraza, Brenda Onyango, Esther Nyokabi and David Lutta.
- **The Usawa Agenda Consultants:** Walter Kwena and Kevin Mwanza
- **The Uwezo 2021 Test Panelists:** Onesmus Kiminza, Jane Njue, Susan Namwoso, Joyce Munene, Dr. Tobias Owiti, Rachel Ngumbao, Beatrice Kyule, Salome Wenyaa, Peninah Njoki, Shadrack Kasinga, Doreen Olunga, Joseph Kirichia, Grace Mwathe, Susan Onyango, Matindi Wainaina, Bernard Muhalia and Charles Karanja.
- The 46 Uwezo County Partners who gave their time to work with village coordinators and volunteers to ensure that we reached all the selected schools, villages and households.
- The 40 trainers who committed their time and expertise to enhance the village coordinators and volunteers' capacities to conduct the survey in the most credible way possible.
- Over 4,000 volunteers and village coordinators who walked from house to house and visited the many schools. You are Uwezo's true heroes and heroines and your

contribution to promoting education in Kenya is invaluable.

- The 1,775 primary school head teachers who welcomed us into their schools to conduct the surveys.
- Over 2,000 chiefs, assistant chiefs and village elders who patiently walked us around their villages, introducing us to the residents, without you, we would have been unwelcome strangers.
- Over 35,000 household heads who opened their doors to us, disrupted their families' routines to respond to our many questions and permitted us to assess their children, we cannot thank you enough.
- Over 38,000 children who diligently took the tests even when it was difficult. We hope, and will continue working to ensure that your struggles lead to educational reforms that guarantee you and future generations, access to equitable and inclusive quality education.
- To Master Umuro Boya Mamo, from Chalbi and his family who graciously granted us permission to have his face grace the cover of our 2021 learning assessment report, and the volunteers, Abudo Kulatu and Talaso Guyo who took the iconic photo, our gratitude to you is immeasurable.
- We sincerely thank the leadership of the Ministry of Education both at the national and county levels for the continued and unwavering support to Usawa Agenda and Uwezo activities. We thank the Kenya National Examinations Council and the Kenya Institute of Curriculum Development for support in developing and reviewing the tests. We appreciate support in sampling and access to Enumeration Area maps offered by the Kenya National Bureau of Statistics. We thank the Department of Family Health, Division of Adolescents and School Health at the Ministry of Health, represented by Dr. Beatrice Ochieng for support in developing the school health components of the **survey tools**. We thank NACOSTI for support in timely authorizing the survey.
- We thank the 46 County Commissioners at whose offices we made our first stops in each of the counties, in some cases requiring security support to proceed with the assessment, and they all came through for us.
- We thank the Kenya Primary Schools Heads Association, the Teachers' Service Commission and the Kenya Secondary Schools Heads Association for their role in producing and sharing this evidence.
- Dr. Aggrey Nganyi drafted this report, with data analytical support from Dr. James Mbugua. Editorial and design services were handled by Amos and William respectively. We thank you for your great efforts.
- It takes a massive, dedicated team to pull off the Uwezo survey. To all those whose names we couldn't list here, accept our heartfelt gratitude and know that literally, we could not have done it without you. We continue to be inspired by all who unwaveringly work every day to secure the future of our children and that of the country through education.

Introduction



This is Uwezo's seventh learning assessment report for Kenya. It confirms that the question we asked when we began in 2009 is still relevant: ***Are Our Children Learning?*** But it also affirms a more salient issue that we have surfaced over the years – inequity, hence the modification of the original question to: ***Are ALL Our Children Learning?*** There is still no significant improvement in learning outcomes. Indeed, there are loses, which may be attributable to the COVID-19 pandemic and its multifaceted global impacts of education.

This report provides a realistic outlook of the status of schooling and learning in Kenya. Kenya has pursued legal, policy and institutional reforms in education since 2010 following the promulgation of the Constitution that brought the following structural adjustments:

1. Education was recognised as a constitutional right through the provisions of Article 53(1),
2. The provision of education became a shared function between the National and County governments (IV Schedule of the Constitution),
3. The Teachers' Service Commission (TSC) was established as an independent Constitutional Commission with the mandate of among others to:
    - Ensure that teachers comply with the teaching standards prescribed by the Commission;
    - Manage the payroll of teachers in its employment;
    - Facilitate career progression and professional development for teachers in the teaching service including the appointment of head teachers and principals; and
    - Monitor the conduct and performance of teachers in the teaching service.

Since then, the country has pursued policy, legal and institutional reforms to comply with the Constitutional requirements of providing free and compulsory basic education, which is defined in the Basic Education Act 2013 as the 12 uninterrupted years of continued learning.

The Basic Education Act (2013) is considered as one of the most transformative laws in the efforts for universalising basic education that has remained one of the indicators since postcolonial Kenya in 1964. The implementation of the Free Primary Education Policy in 2003 and the Free Day Secondary Education policy in 2008 illustrate the efforts towards removing the financial barriers to universalising basic education. The Ministry of Education and the country at large have pursued policies aimed at deepening access, improving quality, relevance and transition at critical levels of basic education.

From 2019, the Ministry of Education began the national roll out of the competency-based curriculum as a hallmark of the education reforms. The curriculum lauded widely by many stakeholders was seen as the panacea to addressing quality concerns. Our evidence (the first on the scene) from 2009 had revealed the sharp contrast between the education inputs and the learning outcomes; that indeed children were in school but were not learning. A chunk of those completing class 8 were unable to read or perform basic literacy and numeracy tasks. For six years, Uwezo conducted citizen-led assessments using simple but rigorous tools in reading and surveyors (volunteers) at the households to include the out of school children.

The findings of the Uwezo assessments revealed

that learning outcomes were not only low but were also inequitably distributed. The shades of inequality glared in the lens of disability, geographical placement pitting rural to urban areas, gender, low against the high income households, the dichotomy of private versus public primary schools and variations across the counties. Indeed, the picture of inequality in learning outcomes could perhaps be considered as one of the greatest challenges to universalising basic education.

Key findings in the 2015 learning assessment report

In 2015, Uwezo Kenya released the 6th learning assessment report. The report presented the following 5 facts about learning and education in Kenya

1. Learning levels were low: only 3 in every 10 learners in class 3 could do class 2 work while one in in 10 class 8 learners could not do class 2 work;
2. Teacher/classroom ratio was low and disparate with an average of 12 teachers perschool with 10 classrooms (streams) and arange of between 9 and 14 teachers for aschool with 10 classrooms (streams);
3. There was a close and statistically significant connection between teacher distribution and learning outcomes;
4. Learning outcomes were lower in rural areas, arid areas and poor households; and
5. Policies on running of pre-schools were not being followed.

Since 2016, the Ministry of Education has among other policy reforms implemented the following:

1. The one hundred transition policy that seeks to ensure that no child stops learning at the end of Class 8;
2. The Ministry has tried a national reading and numeracy program with support of Development Partners to address the quality concerns in basic learning grades;
3. The Ministry of Education has rolled out the Competency Based Curriculum; and
4. The Ministry of Education has rolled out the construction of over 10,000 new classrooms.

On the other hand, the Teachers Service Commission has among other reforms

1. Rolled out the continuous professional development program for teachers; and
2. Implemented school management reforms through reviewing the requirements for head teachers and principals and their deployment.

We went back in June/July 2021 to 46 of the 47 counties in the country. We worked with 46 partners and 46 county coordinators to deploy over 4,000 volunteers in alongside village coordinators, with the support of chiefs, assistant chiefs and village elders to cover 1,913 enumeration areas. We visited 35,063 households spread across country, reached 53,505 children and assessed 38,537 of them. We visited 1,775 primary schools (a mix of public and private) and assessed their facilities, personnel, leadership, enrolment levels and performance in the 2020 national examinations.

The 2021 Uwezo assessment focused on the ability of children to read and comprehend English and Kiswahili, as well as complete basic numeracy tasks, set at grade 3 level. In appreciation of the fact that Kenya is currently implementing two different curricula at the primary school level, we administered different tests to learners in classes 5 - 8 set at class 5 level. This report, however, focuses on the learners under the competency based curriculum (CBC) – grade 4 in particular, who were expected to have completed the grade 3 level work by the time of the assessment. The report further highlights school factors that influence learning and underscores observable inequalities as well as reckons with the underlying drivers of learning outcomes and their distribution.

Key facts on learning in the Covid-19 impacted Kenya in 2021

FACT ONE: Only **2** in **5** grade 4 learners are at least meeting expectations in reading a grade 3 appropriate English text.

FACT TWO: Grade 4 children born to mothers with tertiary education are **80%** and **62%** more likely to meet or exceed expectations in reading a grade 3 appropriate English text and solving a grade 3 appropriate numeracy problem respectively than those born to mothers with utmost primary education.

FACT THREE: **1** in **5 girls** with disability dropped out of school due Covid-19 enforced schools' closure.

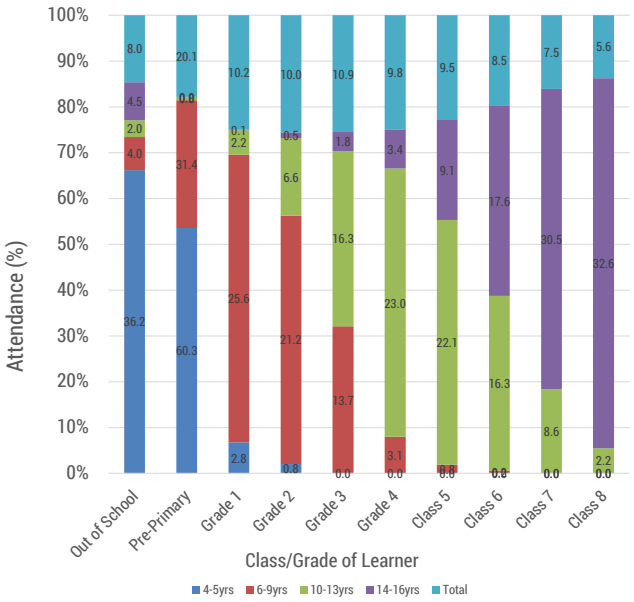
FACT FOUR: **Teacher/classroom ratio** is the most significant school-level factor that contributes positively to the school's mean score in national examinations.

FACT FIVE: **3** in **10 children** of pre-school age are out of school and 3 in 10 children enrolled in ECDE are overage.

Key Findings

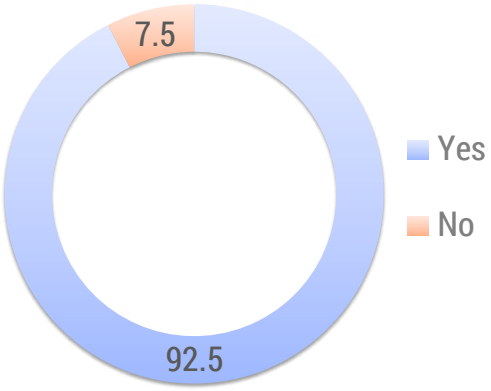
Access to school

Fig. 1: Schooling status of children reached by class/ grade and age



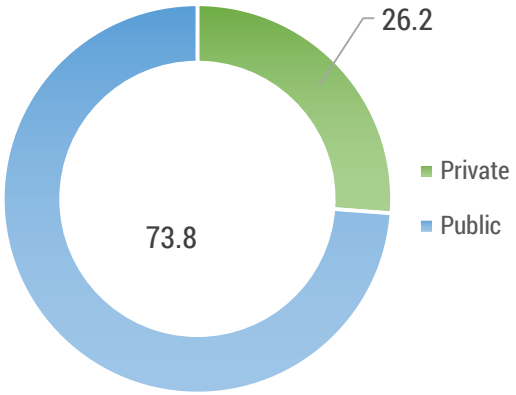
- 4 in 10 children of pre-school age are out of school.
- 3 in 10 children attending pre-school are overage.
- 4 in 10 children of pre-school age are in primary school.
- 1 in 100 children in grade 2 is 14 years or older.
- 1 in 100 children in grade 2 is 5 years or younger.

Fig. 2: School enrolment rate



- 93 in 100 children aged 4 to 16 are enrolled in school.

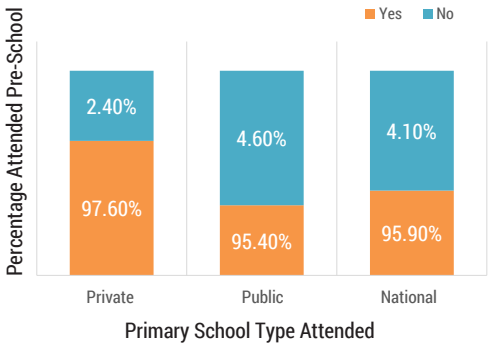
Fig. 3: Type of school enrolled in



- 3 in 10 children in Kenya are enrolled in a private primary school or private ECDE Centre.

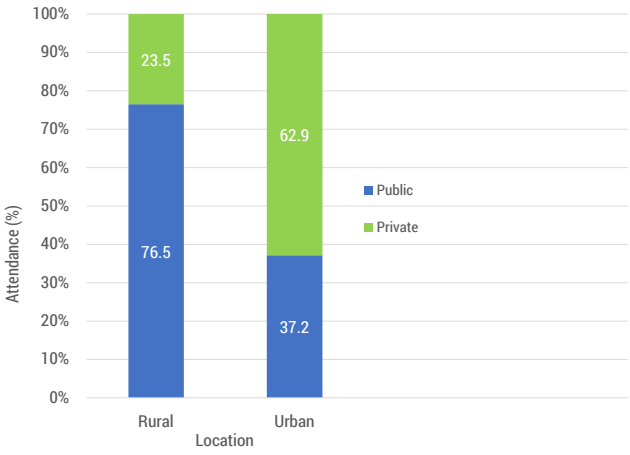
Pre-school Attendance

Fig. 4: Children who attended pre-school before joining primary school by type of school attended



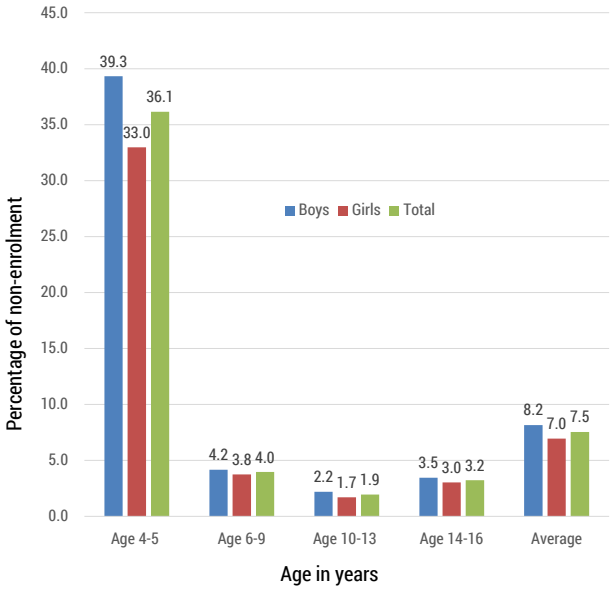
- Only 2 in 100 children currently enrolled in private primary schools did not attend pre-school before joining primary.
- 5 in 100 children in public primary schools did not attend pre-school before joining primary.
- Nationally, only 4 in 100 children currently in primary school did not attend pre-school before joining primary.

Fig. 5: Type of pre-school attended by location



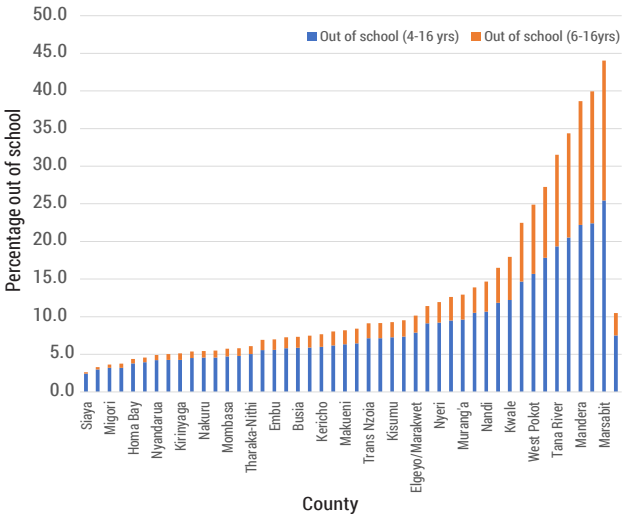
- 8 in 10 ECDE learners in rural areas attend public ECDE Centres.
- 6 in 10 ECDE learners in urban areas attend private ECDE Centres.

Fig. 6: Out of school children by age and gender



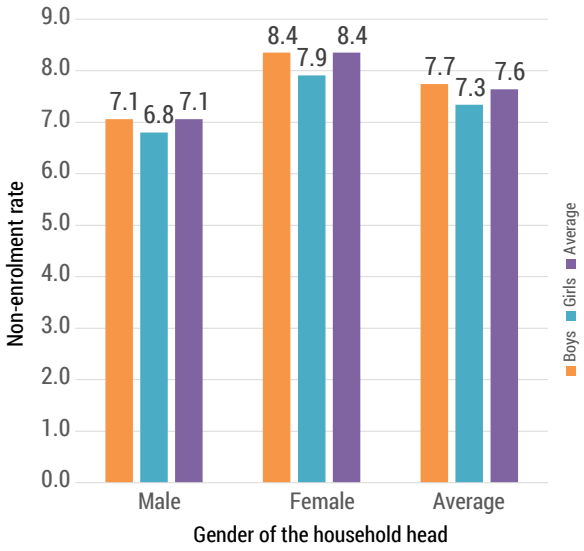
- 4 in 10 children of pre-school age are out school.
- 3 in 100 children of primary school age are out of school.
- On average, 8 in 100 children of school age are out of school.
- Generally, more boys of school going age are out of school than girls.

Fig. 7: Out of school children by county of residence and age



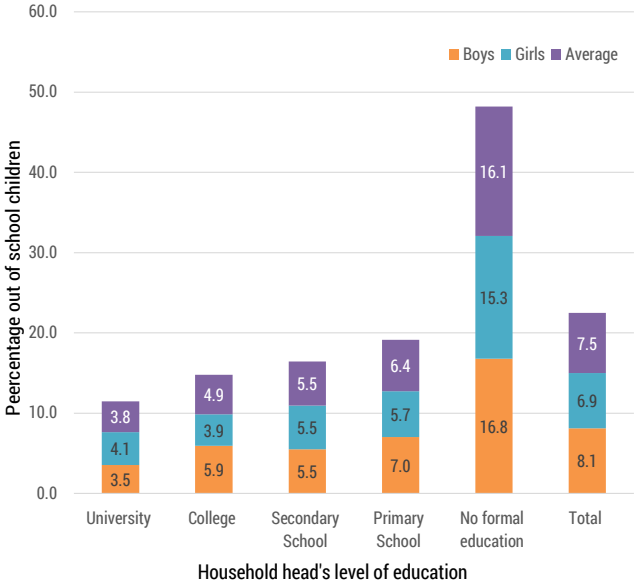
- Marsabit County has the highest percentage of 4 – 16-year-old children out of school at more than thrice the national average.
- A 4 – 16-year-old child in Marsabit County is 10 times more likely to be out of school than a child of similar age group in Siaya County.
- 7 counties with the highest percentage of children out of school are all from the Arid and Semi-arid lands (ASALs) areas.

Fig. 8: School-aged children out of school by gender of the household head and the child



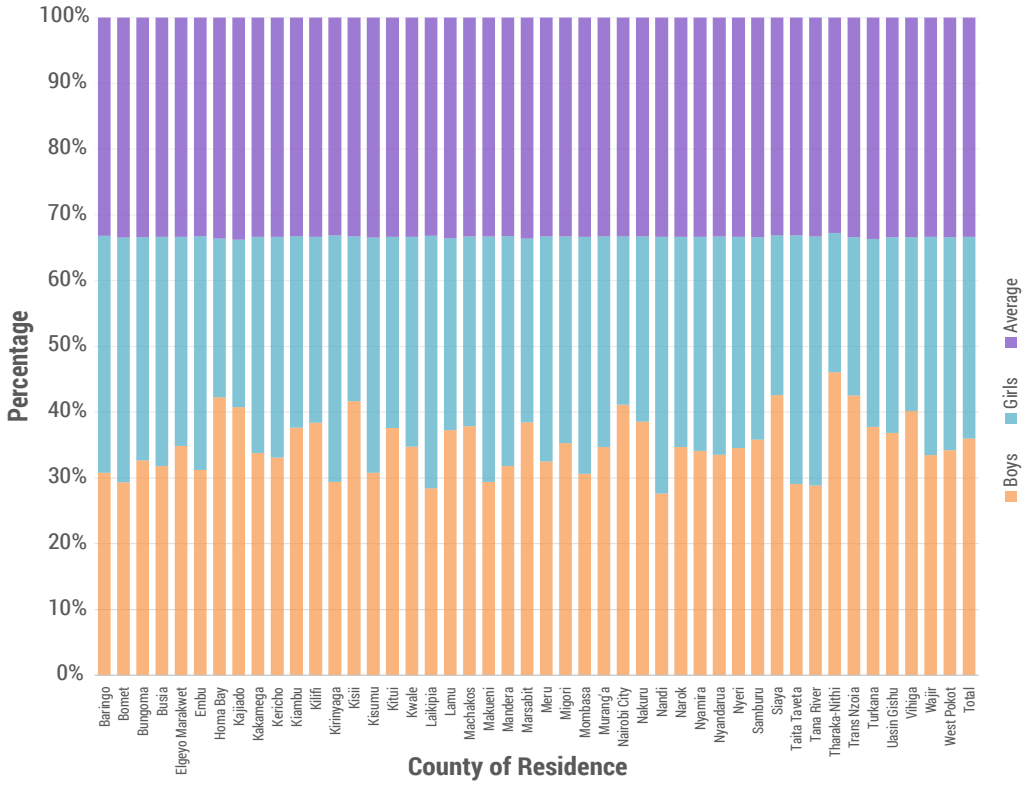
- Children of school-going age in female-headed households are 1.3% more likely to be out of school than their counterparts in male-headed households.
- Boys of school-going age are generally 0.4% more likely to be out of school than girls.

Fig. 9: School-going aged children out of school by the education level of the household head and the gender of the child



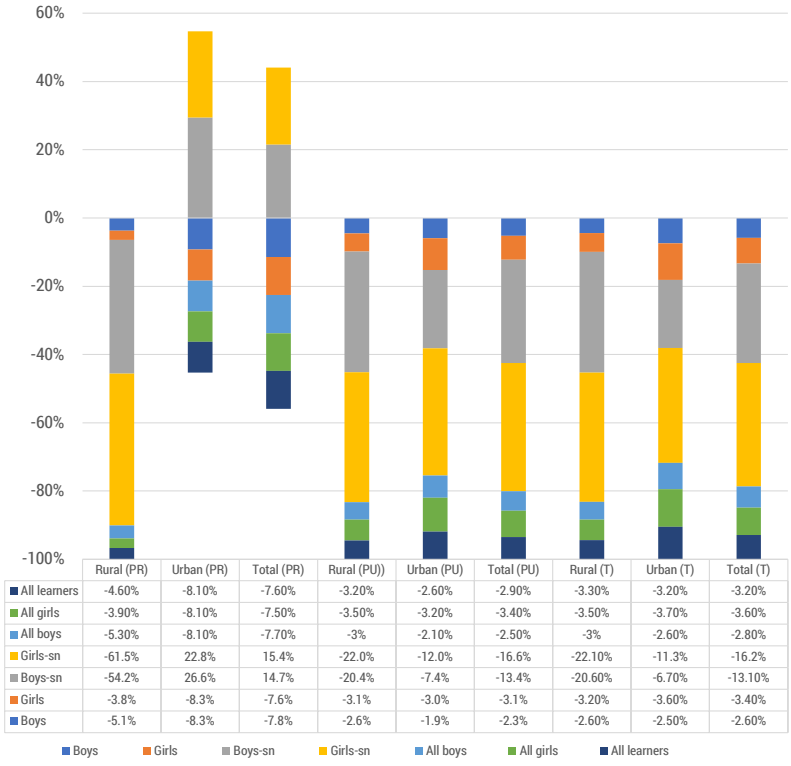
- 1 in 5 children of school-going age in households headed by adults without formal education is out of school
- The higher the level of formal education the household head has, the lower the chance of the children in the household to be out of school – 3.8% for university; 4.9% for college; 5.5% for secondary; and 6.4% for primary level.

Fig. 10: Out of school children by county of residence and gender



- 15 of the 45 counties had higher percentage of girls out of school than boys: Baringo, Bomet, Bungoma, Busia, Embu, Kirinyaga, Kisumu, Laikipia, Makueni, Mandera, Meru, Mombasa, Nandi, Taita Taveta and Tana River.

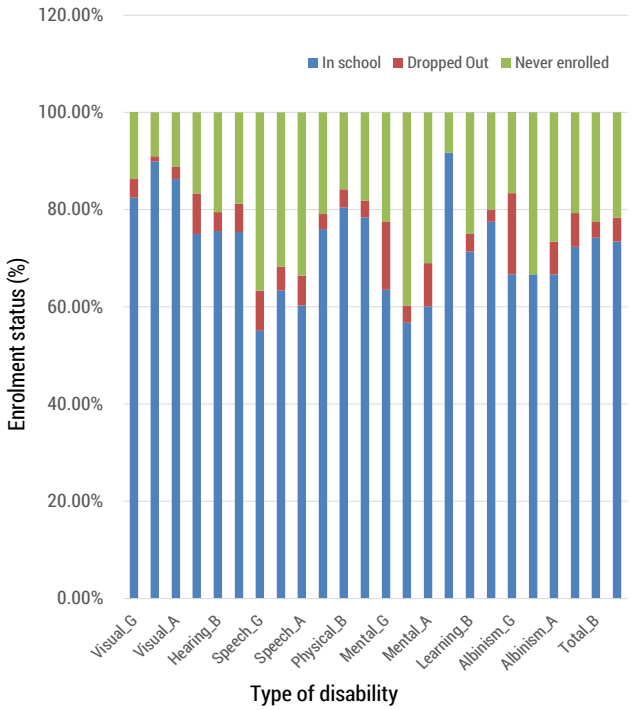
Fig. 11: Impact of COVID-19 on school enrolment by gender, disability, school type & location



	Rural (PR)	Urban (PR)	Total (PR)	Rural (PU))	Urban (PU)	Total (PU)	Rural (T)	Urban (T)	Total (T)
All learners	-4.60%	-8.10%	-7.60%	-3.20%	-2.60%	-2.90%	-3.30%	-3.20%	-3.20%
All girls	-3.90%	-8.10%	-7.50%	-3.50%	-3.20%	-3.40%	-3.50%	-3.70%	-3.60%
All boys	-5.30%	-8.10%	-7.70%	-3%	-2.10%	-2.50%	-3%	-2.60%	-2.80%
Girls-sn	-61.5%	22.8%	15.4%	-22.0%	-12.0%	-16.6%	-22.10%	-11.3%	-16.2%
Boys-sn	-54.2%	26.6%	14.7%	-20.4%	-7.4%	-13.4%	-20.60%	-6.70%	-13.10%
Girls	-3.8%	-8.3%	-7.6%	-3.1%	-3.0%	-3.1%	-3.20%	-3.60%	-3.40%
Boys	-5.1%	-8.3%	-7.8%	-2.6%	-1.9%	-2.3%	-2.60%	-2.50%	-2.60%

- COVID-19 imposed school closure resulted in enrolment dropping by 3.2% on reopening of schools in January 2021
- Girls with disabilities recorded the highest decline in enrolment (16.2%) compared to boys with disabilities (13.1%).
- Private schools recorded a decline in enrolment of 7.6%, while public schools recorded a decline in enrolment of 2.9%.
- Rural schools recorded a marginally higher decline in enrolment at 3.3% compared to the urban schools at 3.2%.
- Rural private schools recorded a lower decline in enrolment at 4.6% compared to the urban private schools at 8.1%.

Fig. 12: Schooling status of children with disabilities by gender and disability type

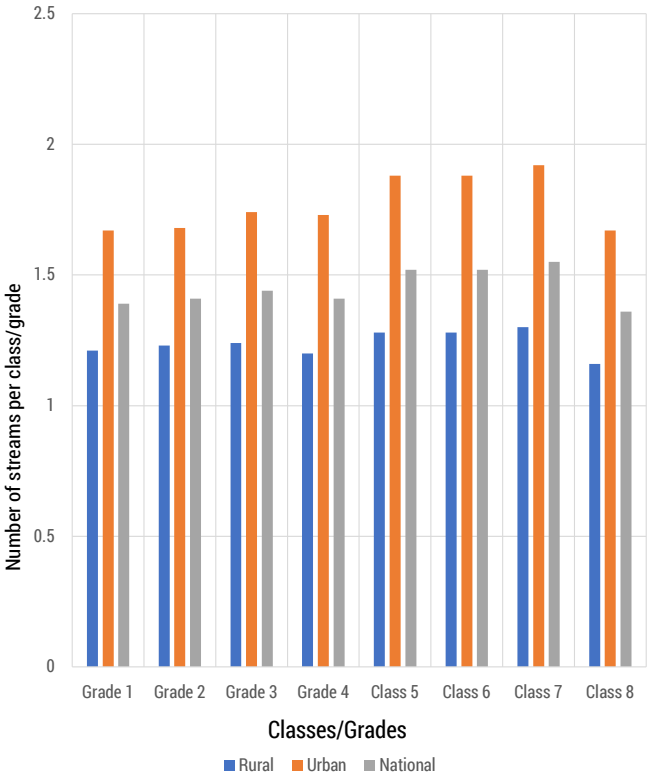


NOTE: G = girls; B = boys; and A = all.

- Girls with learning difficulties are the most likely among children with disabilities to be in school.
- Girls with speech impairment are the least likely to be in school.
- Boys with mental disability are the most likely to never enroll in school.
- Girls with albinism are the most likely to drop out of school once enrolled, while boys with albinism are the least likely to drop out of school.

School Factors

Fig. 13: Number of streams per class/grade by school location



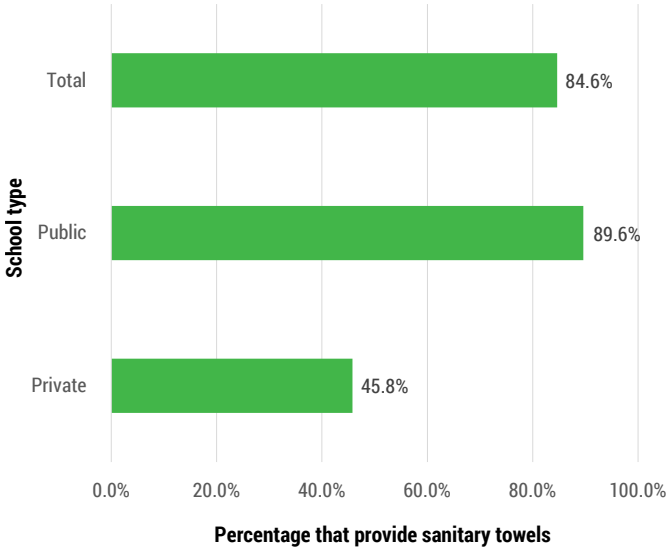
- Both rural and urban schools have almost constant number of streams across all the classes/grades, which may indicate high retention rate.
- Urban schools have more streams than their rural counterparts at all levels.

Table 1: Average class sizes by school type

Type of school	Private	Public	Total
Grade 1	30	48	46
Grade 2	30	50	48
Grade 3	31	51	49
Grade 4	23	49	46
Class 5	28	52	50
Class 6	25	52	50
Class 7	24	51	49
Class 8	20	43	41

- Class sizes are consistently smaller in private schools compared to public schools
- An average class 8 class in a private school has less than half the number of learners in a class 8 class in a public school.

Fig. 14: Schools providing sanitary towels by school type



- 9 in 10 public primary schools provide girls with sanitary towels.
- Only 5 in 10 private primary schools provide girls with sanitary towels.

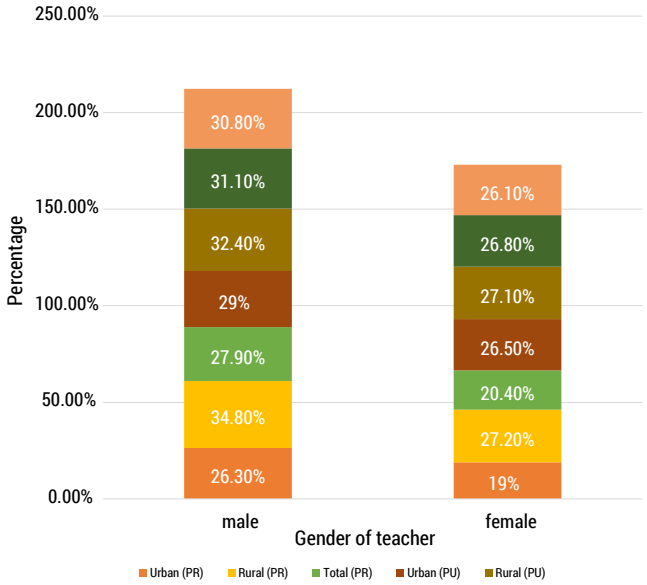
ICT in Schools

Schools are yet to fully make use of ICT in learning. The hardware installation is still low across the country. The uptake of ICT in education is seen as diversifying the learning environment, increasing school experiences, liberalizing learning and allowing teachers to adopt teaching practices that accelerate learning. The government has been implementing the Digital Learning Program since 2013, supplying digital learning devices, setting up computer laboratories and training the teachers.

Table 2: ICT penetration in schools by location

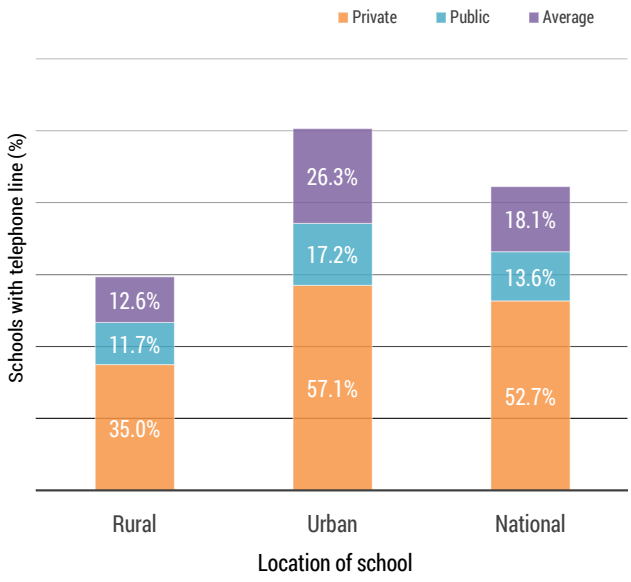
ICT resource penetration	Rural	Urban	Average
Number of learners sharing a computer	35	53	43
Proportion of schools with a computer laboratory	20.4	35.4	26.4
Percentage of teachers trained on using ICT in learning	35.1	42.6	38.8
Percentage of schools connected to electricity or solar as main source of lighting	93.5	96.8	94.8
Percentage of schools offering computer lessons	32.7	39.1	35.3
Percentage of schools utilizing KICD audio-visual learning materials	44.1	51.6	47.1
Percentage of schools utilizing the radio lessons on the national broadcaster - KBC	11.1	15.9	13.0

Fig. 15: Teachers trained in digital literacy by gender and location



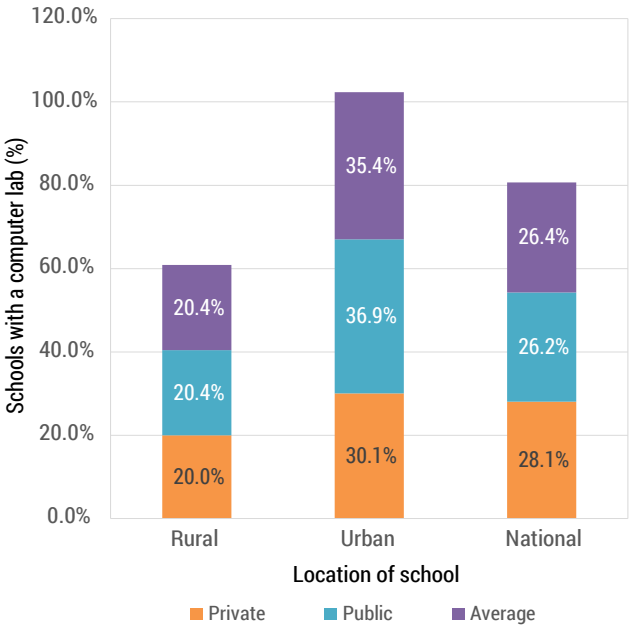
- More male teachers are trained in digital literacy than female teachers
- More public-school teachers are trained in digital literacy than private school teachers

Fig. 16: Schools with a functional official telephone line by school type and location



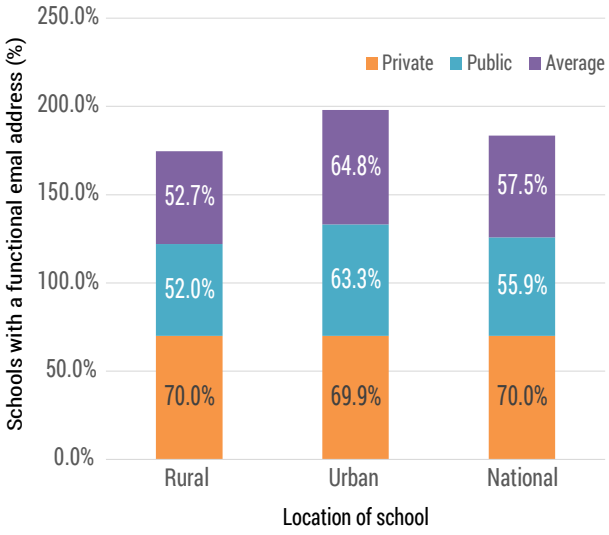
- 5 in 10 private primary schools have a functional official telephone line.
- Only 1 in 10 public primary schools have a functional official telephone line.
- Nationally, 2 in 10 primary schools have a functional official telephone line.
- 1 in 10 primary schools in rural areas have a functional official telephone line.
- 3 in 10 primary schools in urban areas have a functional official telephone line.

Fig. 17: Schools with a computer lab by school type and location



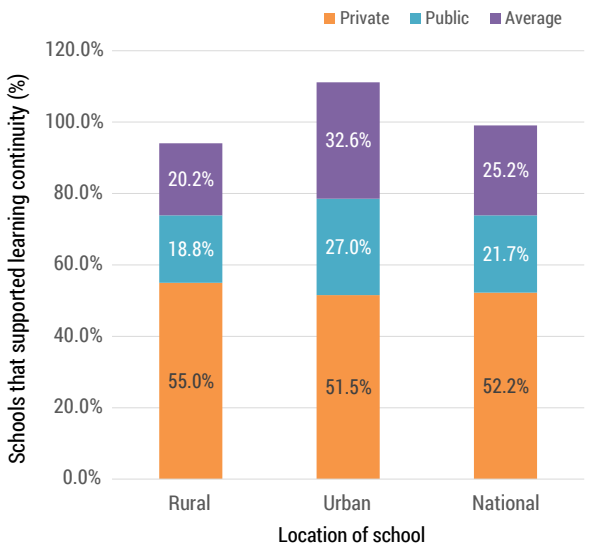
- 26 in 100 primary schools have computer labs.
- In urban areas, 35 in 100 primary schools have computer labs.
- In rural areas, 20 in 100 primary schools have computer labs.
- The difference between private and public schools with computer labs is insignificant.

Fig. 18: Schools with a functional official email address by school type and location



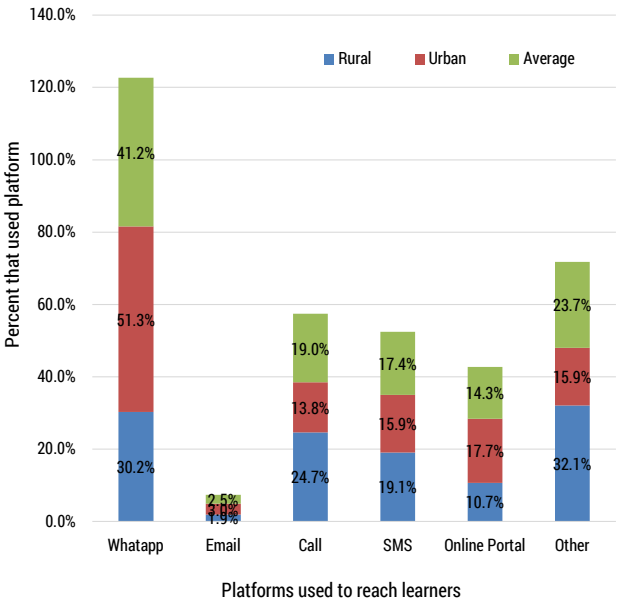
- 6 in 10 primary schools have an official email address.
- 7 in 10 private primary schools have an official email address.
- 5 in 10 public primary schools have an official email address.

Fig. 19: Schools that supported learning continuity during school closures by school type and location



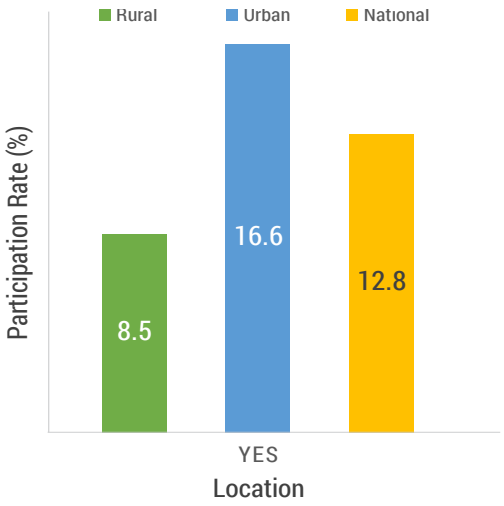
- 25 in 100 schools implemented some learning continuity intervention.
- 33 in 100 schools in urban areas implemented some learning continuity intervention.
- 20 in 100 schools in rural areas implemented some learning continuity intervention.
- More than 5 in 10 private schools in both rural and urban areas implemented some learning continuity intervention.
- 2 in 10 private schools in rural areas implemented some learning continuity intervention.
- 3 in 10 private schools in urban areas implemented some learning continuity intervention.

Fig. 20: Popular Platforms used to support learning continuity during school closures



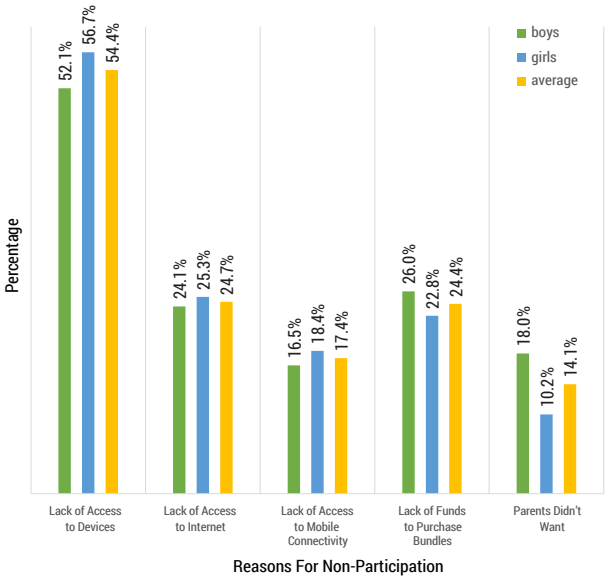
- 4 in 10 schools used WhatsApp to reach their learners with learning materials.
- 2 in 10 schools used phone calls to reach their learners with learning materials.
- 2 in 10 schools used SMS to reach their learners with learning materials.
- 1 in 10 schools used online portal to reach their learners with learning materials.
- Email was the least used platform in promoting learning continuity.
- In rural areas, WhatsApp and unnamed other platforms were the most popular platforms used.

Fig. 21: Households whose children attended Online Classes



- 13 in 100 households have children who participated in online classes during the schools' closure
- Only 9 in 100 households in rural areas have children who participated in online classes during the schools' closure
- 17 in 100 households in urban areas have children who participated in online classes during the schools' closure

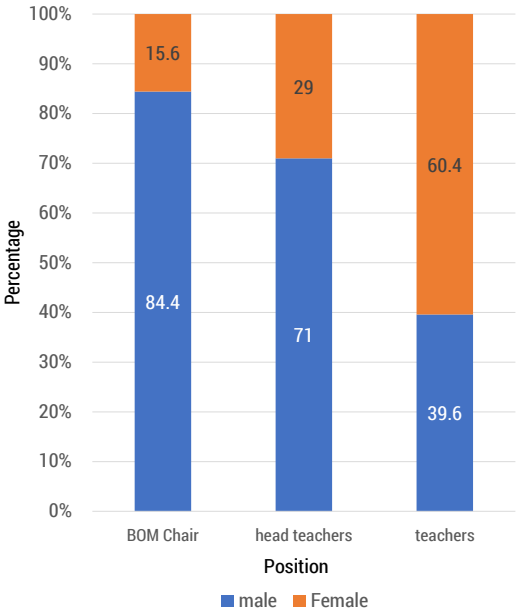
Fig. 22: Reasons for non-participation in online lessons by children by gender



- 5 in 10 children who didn't take online lessons could not do so due to lack of access to devices.
- 6 in 10 girls compare to 5 in 10 boys who didn't take online lessons could not do so due to lack of access to devices
- 1 in 10 children who didn't take online lessons were denied permission to do so by their parents
- 1 in 5 children who didn't take online lessons could not do so due to lack of funds to purchase internet bundles

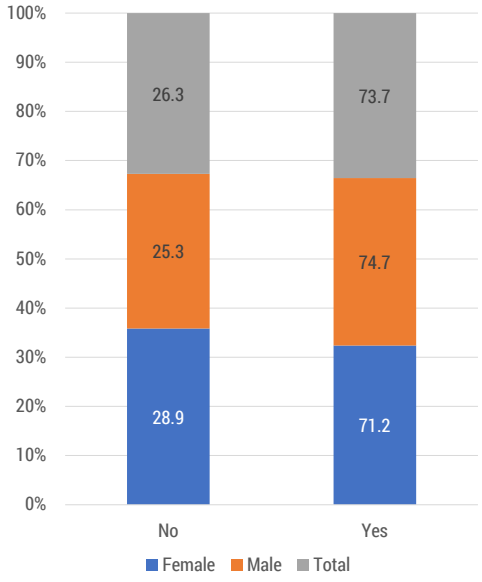
Teachers and School Managers

Fig. 23: Distribution of teachers and school managers by gender



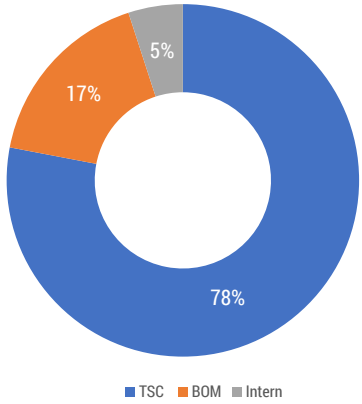
- Women teach in the primary schools, but men manage the schools
- 8 in 10 BOM chairpersons are men
- 7 in 10 school heads are men
- 6 in 10 teachers in the schools are women

Fig. 24: Head teachers trained in management in the last 2 years by gender



- 7 in 10 head teachers have been trained in management in the last 2 years.
- There is insignificant gender difference in the percentage of male and female head teachers trained in management.

Fig. 25: Public school teachers' distribution by employment status



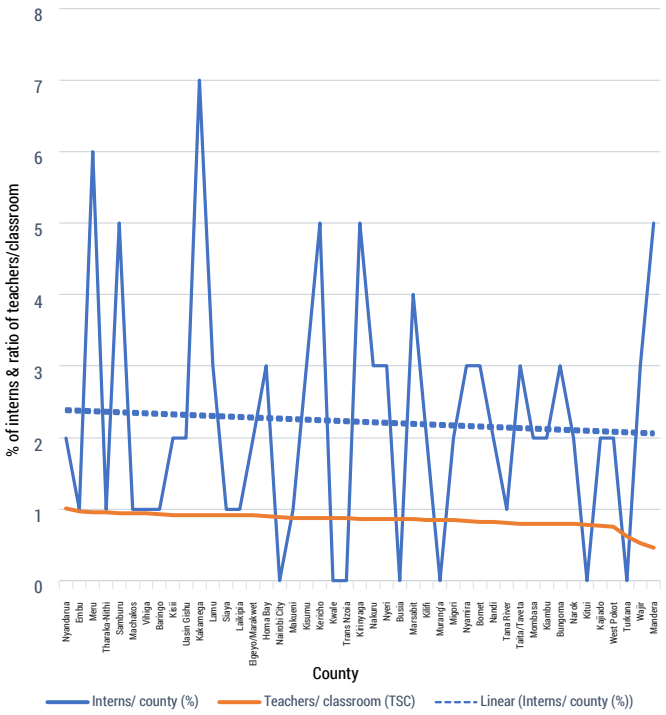
- 5 in 100 teachers in schools are interns
- 2 in 10 teachers in schools are employed by parents through Boards of management (BOM)
- 8 in 10 teachers in schools are employed by TSC

Table 3: Number of teachers per classroom by county

County	Teachers/ classroom (TSC)	Teachers/ classroom (All)	Interns/ county (%)
Nyandarua	1.01	1.09	2
Embu	0.97	1.05	1
Meru	0.95	1.08	6
Tharaka-Nithi	0.95	1.12	1
Samburu	0.94	1.17	5
Machakos	0.94	1.01	1
Vihiga	0.94	1.05	1
Baringo	0.93	1.04	1
Kisii	0.92	1.05	2
Uasin Gishu	0.91	1.04	2
Kakamega	0.91	1.09	7
Lamu	0.91	1.04	3
Siaya	0.91	1.04	1
Laikipia	0.91	0.99	1
Elgeyo/Marakwet	0.91	1.34	2
Homa Bay	0.90	1.11	3
Nairobi City	0.89	1.19	0
Makueni	0.88	1.04	1
Kisumu	0.87	1.12	3
Kericho	0.87	1.25	5
Kwale	0.87	1.09	0
Trans Nzoia	0.87	0.92	0
Kirinyaga	0.86	0.90	5
Nakuru	0.86	1.10	3
Nyeri	0.86	0.93	3
Busia	0.86	1.10	0
Marsabit	0.86	1.06	4
Kilifi	0.85	0.98	2
Murang'a	0.85	0.96	0
Migori	0.85	1.09	2
Nyamira	0.83	0.97	3
Bomet	0.82	1.05	3
Nandi	0.82	1.06	2
Tana River	0.81	0.98	1
Taita/Taveta	0.80	0.92	3
Mombasa	0.80	1.11	2
Kiambu	0.79	0.89	2
Bungoma	0.79	1.05	3
Narok	0.79	1.04	2
Kitui	0.78	1.02	0
Kajiado	0.77	1.09	2
West Pokot	0.75	1.14	2
Turkana	0.62	0.79	0
Wajir	0.52	0.92	3
Mandera	0.46	1.12	5
National	**0.85**	**1.05**	**100**

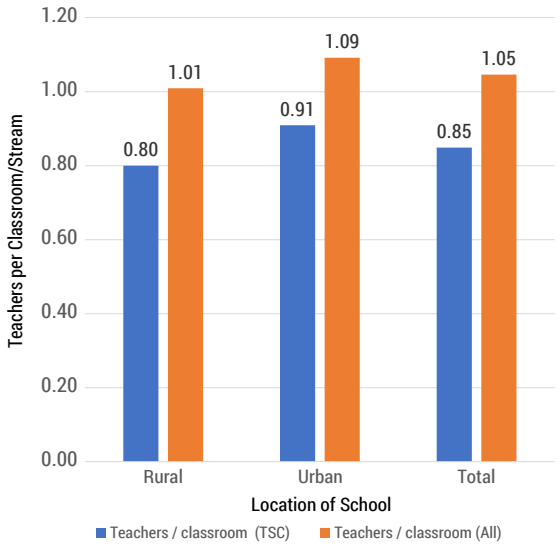
- Distribution of TSC teachers across the country is skewed ranging from 5 teachers for a school with 10 classes that require teachers in Mandera to 10 teachers for a school with 10 classes that require teachers in Nyandarua.
- Teachers/classroom ratio has declined from 2015.
- Counties in the ASAL areas are worst affected by the teacher shortages.

Fig. 26: Percentage distribution of intern teachers by county



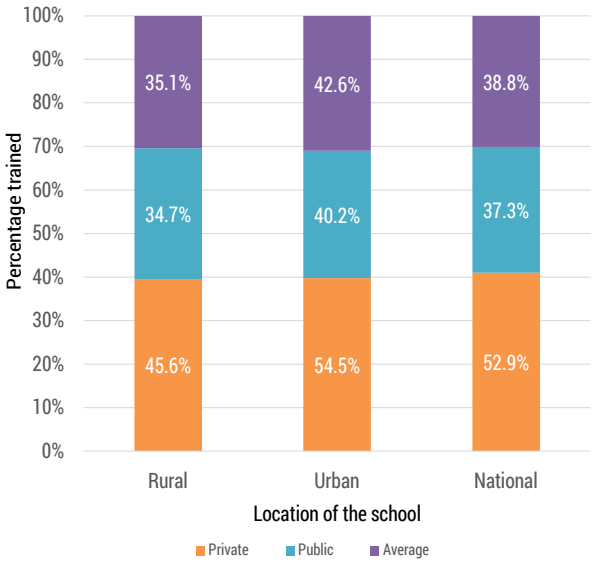
- Intern teachers' deployment does not seem to consider counties' prevailing deficit of teachers.

Fig. 27: Teachers per public school classroom by location



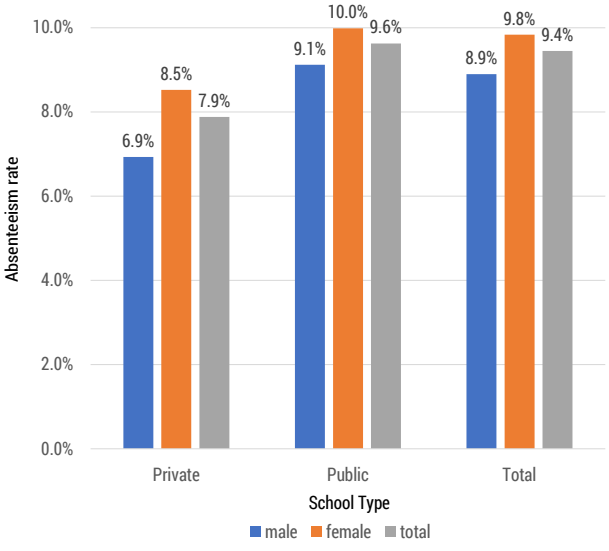
- Schools in rural areas face more acute shortage of teachers than urban areas
- Nationally, for every school with 10 classrooms that require teachers, TSC has posted 8 teachers
- In urban areas, for every school with 10 classrooms that require teachers, TSC has posted 9 teachers

Fig. 28: Teachers trained in general computer use by school type and location



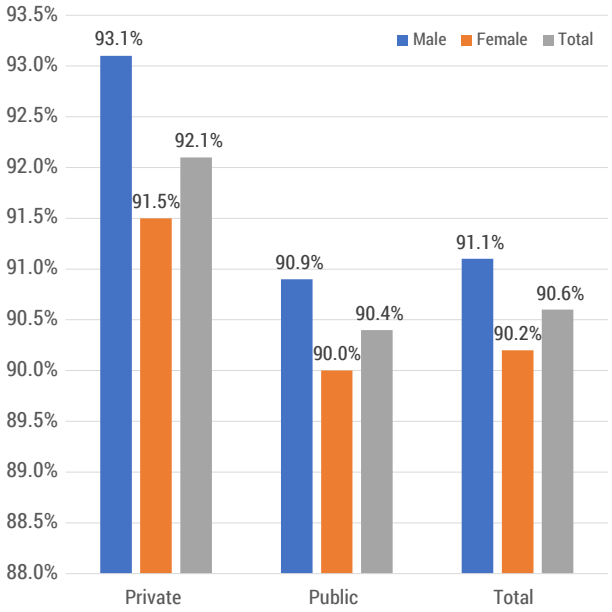
- Nationally, 39 in 100 teachers are trained in general computer use; 38 in 100 public primary school are trained are trained in general computer use; and 53 in 100 teachers in private primary schools are trained in general computer use.
- In rural areas, 35 in 100 teachers are trained in general computer use; 35 in 100 public primary school are trained in general computer use; and 46 in 100 teachers in private primary schools are trained in general computer use.
- In urban areas, 43 in 100 teachers are trained in general computer use; 40 in 100 public primary school are trained in general computer use; and 55 in 100 teachers in private primary schools are trained in general computer use.

Fig. 29: Teacher absenteeism rate by gender and school type



- 9 in 100 teachers were absent from school on the day of the survey.
- 8 in 100 teachers in private schools were absent from school on the day of the survey.
- 10 in 100 teachers in public schools were absent from school on the day of the survey.

Fig. 30: Learners' school attendance rate by gender and school type



- Fewer learners were absent from school on the day of the survey in private schools compared by public schools
- Nationally, 9 in 100 learners were absent from school on the day of the survey
- 10 in 100 girls were absent from school on the day of the survey
- 7 in 100 boys were absent from school on the day of the survey in private schools.
- Girls in public schools registered the lowest attendance rate on the day of the survey.

Table 4: Learning infrastructure in schools

Learning infrastructure	Percentage
Schools with at least one incident of children learning in the open	4.5
Schools with at least one incident of a shared classroom	3.4
Schools with at least one incident of children seated on the floor	12.3
Schools with an administration building/ block	74.8
Schools with a playing field for children in the school	92.4
Schools with a library	25.3
Schools with a library linked to online libraries	22.9

- Only a quarter of the surveyed primary schools have a functional library.
- Only 1 in 5 schools with a library has a link to the online learning resources.

Table 5: Status & opinions on Implementation of the CBC in schools

CBC component	Percentage
Teachers trained on implementation of CBC	83.2
Teachers trained on Competence Based Assessment	66.3
Teachers with the opinion that CBA will improve quality of education	60.8
Headteachers with the opinion that CBC will improve equity in education	86.7

School Health and Safety Matters

Table 6: School health capacities

Health capacity	Ratio/ %
Average distance between the school and nearest health facility	3.3 Kms
Schools with a Nurse	2.4%
Schools with someone trained on first aid	55.9%
Schools providing psychosocial support to teachers and learners	46.1%
Counselor to pupil ratio	1:304

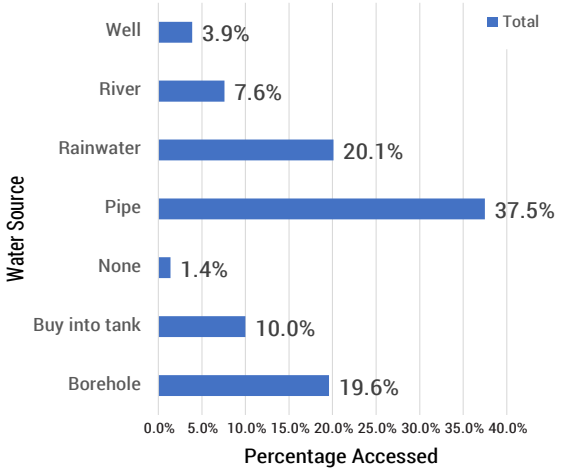
- 4 in 10 schools have no personnel trained in first aid
- Only 5 in 10 schools were providing psychosocial support to teachers and learners
- There is 1 counselor to 304 learners.

Table 7: School re-entry by teen mothers

Support mechanism	Percentage
Teen mothers who reported back to school after delivery in past one year	58.2%
Schools with measures to support teen mothers	38.1%

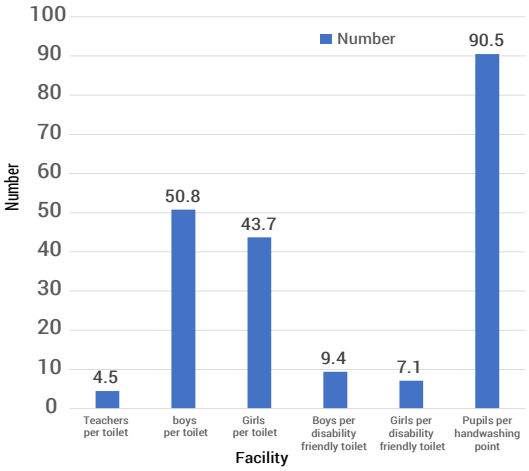
- 2 in 5 reported cases of teenage pregnancy among the learners didn't return to school after delivery.
- Only 2 in 5 schools have instituted measures to support teen mothers who return to school.

Fig. 32: Sources of drinking water in schools



- 2 in 5 schools have access to clean drinking water from the local water services body.

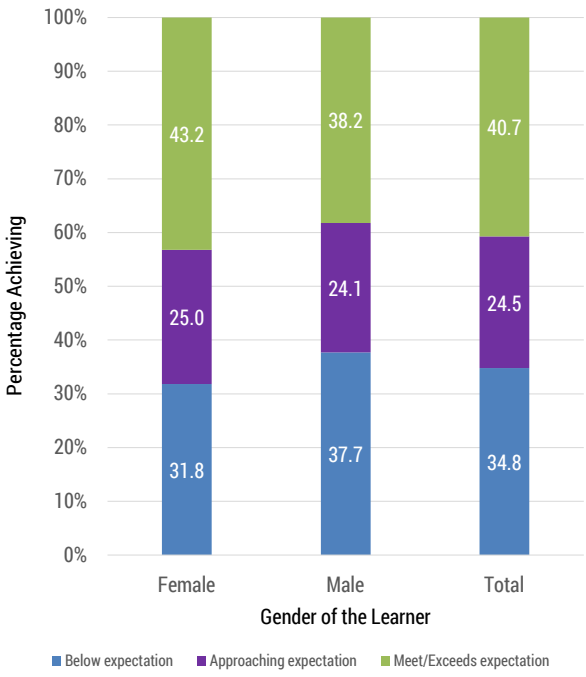
Fig. 33: Toilet and handwashing facilities in schools



- 91 learners use one handwashing point
- 51 boys use one toilet
- 44 girls use one toilet

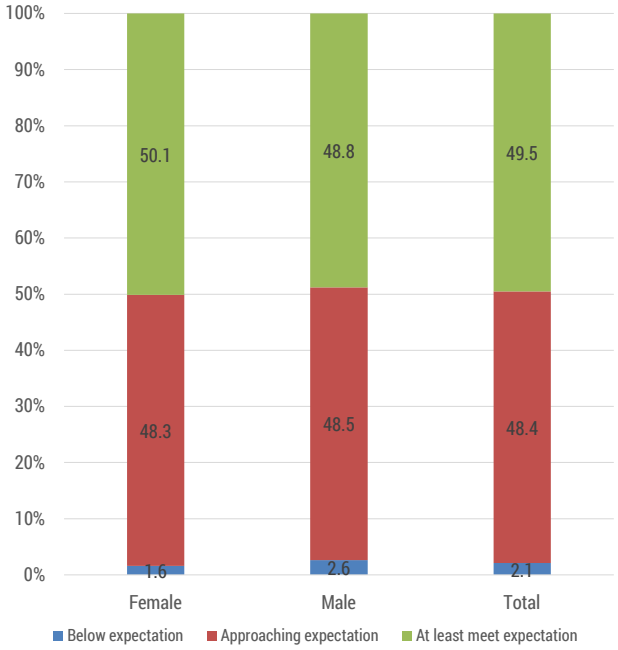
Learning Outcomes

Fig. 31: Proportion of grade 4 learners who at least meet expectations in reading a grade 3 appropriate English text by gender



- 38 in 100 boys at least meet expectations in reading a grade 3 appropriate English text
- 43 in 100 girls at least meet expectations in reading a grade 3 appropriate English text
- Overall, 2 in 5 learners at least meet expectations in reading a grade 3 appropriate English text

Fig. 32: Proportion of grade 4 learners who at least meet expectations in solving a grade 3 appropriate numeracy problem by gender



- 5 in 10 learners at least meet expectations in solving a grade 3 appropriate numeracy problem
- The boys and girls perform evenly in numeracy with the girls enjoying a marginal advantage.

Inequalities and Their Traditional Markers

The global education agenda for 2030, SDG 4, seeks to give every chance an equitable opportunity for quality education and lifelong learning. This study fitted two regression models, one of household data (table 8) and another on school data (table 9).

Table 8: Regression results on household and learning

	English				Math			
Factor	**Odds Ratio**	**p-value**	**95% CI**		**Odds Ratio**	**p-value**	**95% CI**	
Age of child	1.00	0.930	0.93	1.09	1.03	0.468	0.94	1.13
School type (Ref: public)	1.86	0.000	1.42	2.44	1.51	0.023	1.06	2.15
Pupil's gender (Ref: male)	1.39	0.002	1.13	1.71	1.15	0.253	0.91	1.45
Mother's education (Ref: <=primary) (secondary)	1.27	0.067	0.98	1.63	1.50	0.010	1.10	2.04
Mother's education (tertiary)	1.80	0.000	1.30	2.50	1.62	0.025	1.06	2.47
Household head's gender (Ref: male)	1.42	0.001	1.15	1.75	0.99	0.956	0.78	1.26
No of children in the household	0.93	0.082	0.87	1.01	0.97	0.411	0.89	1.05
Household wealth level = middle	1.35	0.033	1.02	1.78	1.49	0.007	1.12	1.99
Household wealth level = high	2.10	0.000	1.52	2.89	2.17	0.000	1.51	3.13
Attended remote lessons	0.88	0.443	0.63	1.22	0.79	0.227	0.54	1.16
Type of residence (urban)	1.11	0.414	0.87	1.41	1.00	0.982	0.75	1.32

The first model, fitted household data is a Poisson regression and its results are given in table 8. The model is between learning levels among grade 4 pupils against sex of the pupil; type of school attended (public/private); household wealth level (poor/middle income/high income); household head's gender; no of children in the household; attendance of remote lessons; type of residence (rural/urban); and mother's level of formal education. The results show:

- The odds of having better learning outcomes in English for girls are 39% higher than for boys;

- Pupils in private schools have better learning outcomes than those in public schools. The odds for a pupil from a private primary school to have better learning outcomes in English and numeracy are 86% and 51% respectively higher than those of a pupil from a public primary school;
- The odds for children from wealthy households to have better learning outcomes are more than twice those of children from poor households;
- Mother's education plays a significant role in improving the learning outcomes of a child. Using children born to mothers with utmost primary education as the reference group, the odds of having better learning outcomes are 50% and 80% higher for pupils born to mothers with secondary and tertiary education respectively.
- The odds of children living in female-headed households to have better learning outcomes in English are 42% higher than those of their counterparts in male-headed households.

Table 9: Regression results on school factors and learning outcomes

Factor	Coefficient	p-value	[95% CI]	
Gender of BOM head	-0.84	0.740	-5.81	4.12
Head teacher gender	3.38	0.098	-0.62	7.39
Years head teacher served in the current school	1.73	0.000	1.17	2.30
Total years served as a head teacher	-0.61	0.000	-0.87	-0.35
Head teacher has a computer	3.97	0.040	0.19	7.75
Head teacher attended management training	0.70	0.734	-3.31	4.71
Total number of learners in the school	0.02	0.008	0.00	0.03
PTR ratio	0.19	0.001	0.07	0.30
Pupil/Classroom Ratio	-0.61	0.000	-0.83	-0.38
Teacher/Classroom Ratio	17.38	0.000	12.16	22.61
Pupils/Toilet Ratio	0.03	0.240	-0.02	0.07
School has a playground	-6.08	0.080	-12.89	0.74
School has electricity	6.26	0.030	0.61	11.92
School has either borehole or piped water	5.96	0.003	2.09	9.84
School has a library	6.56	0.002	2.31	10.81
School supported learning during COVID-19	13.39	0.000	9.21	17.57
Type of Residence (Urban)	15.22	0.000	10.97	19.47

The second model, which was fitted on school data was a logistic model. It was between the school's mean score in the immediate last national examinations (KCPE) and multiple school level factors as indicated in table 9. The results show:

- One year increase in the head teacher's service as head of the same school is associated with almost 2 marks addition to the mean score.
- One year increase in the head teacher's service as head overall is associated with 0.61 marks reduction from the mean score.
- The head teacher possessing a computer is associated with a 4 marks addition to the mean score.
- An increase in one unit in the pupil/classroom ratio (class size) is associated with a 0.6 marks reduction from the mean score.
- An increase in one unit in the teacher/classroom ratio is associated with 17 marks addition to the men score.
- Presence of electricity in a school is associated with 6 marks addition to the mean score.
- Presence of a clean and permanent source of water in a school is associated with 6 marks addition to the mean score.
- Having a library in a school is associated with 7 marks improvement in the mean score.
- Having supported learning continuity during the school closures is associated with 13 marks improvement in the KCPE mean score.
- Being located in the urban areas is associated with 15 marks improvement in the mean score compared to a rural school.

Appendices

Selecting Counties, Villages and Households

Appendix 1: Selecting Counties, Villages and Households

The sample frame for the 2021 assessment was drawn from the 47 Counties that form the Kenya sampling frame according to the Kenya National Bureau of Statistics (KNBS). However, data were collected in 46 counties. The survey was not carried out in Isiolo County due to security reasons. The analysis further excluded data from Garissa County and a few other villages/EAs due to poor data quality rom those specific EAs.

Sample	Reached and reported all the **46** counties, 1913 Eas **35,063** households **1775** schools
Reached and assessed children	**53,505** children reached, **38,537** children assessed
Sampling enumeration areas	EAs were sampled in all the counties depending on the population and size
Mapping of enumeration areas	All the sampled EAs in the county mapped using EA maps
Household listing and lists	Volunteer was given a list of households as well as the **20** sampled households
Process recheck	Process re-check conducted in **6** counties

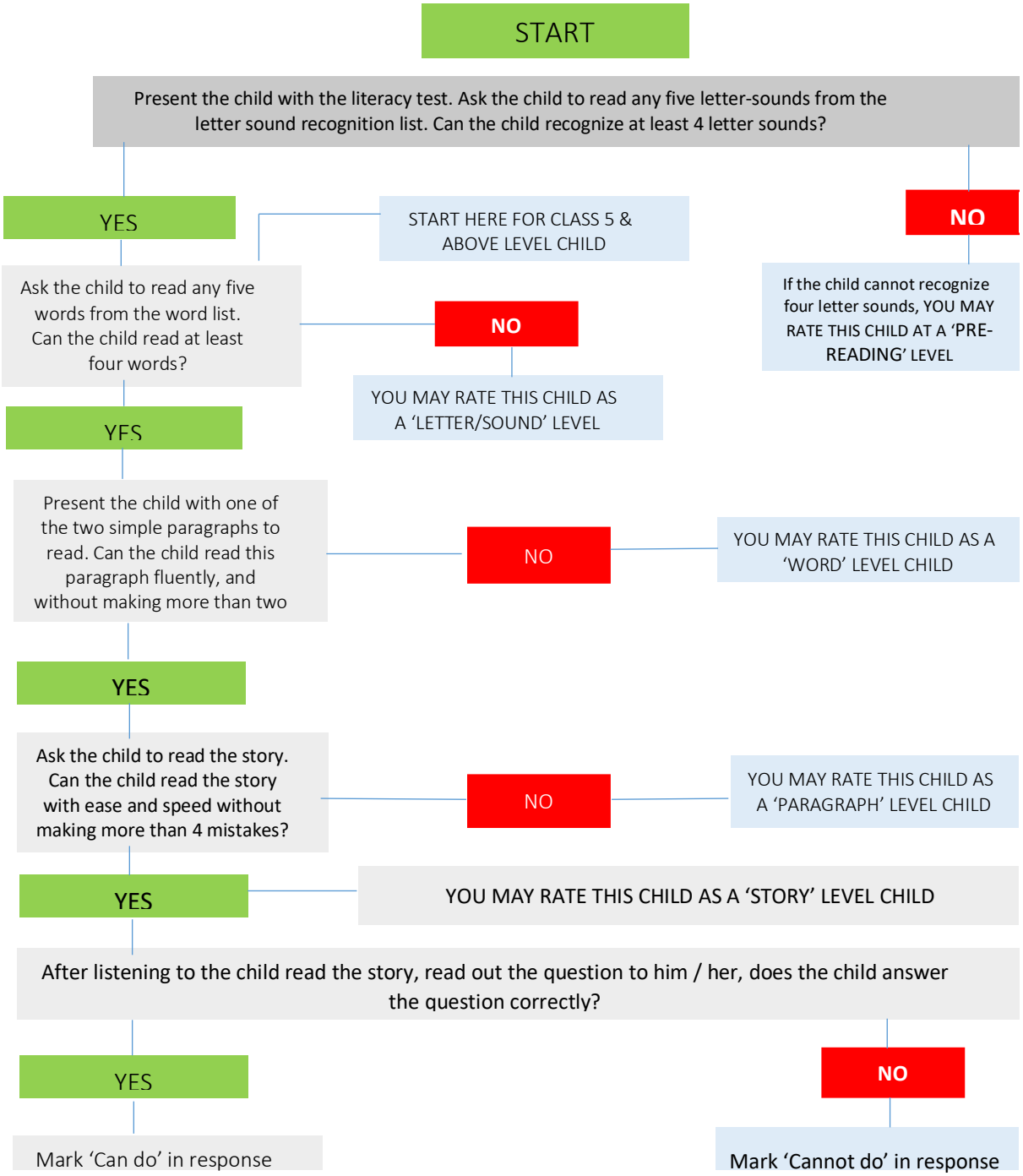
Appendix 2: Testing Tools and Processes

The 2021 testing processes was guided by the reviewed Test Development Framework which included the assessment of both the Competency Based Curriculum and the 8.4.4 Curriculum. The tests were designed to measure the competence of children between the age of 6-16 on basic ***skills in literacy and numeracy***. The assessment tests are designed in such a way that they place the child at appropriate level of competence.

Stakeholder buy in	Partnership with Ministry of Education, Kenya National Examination Council, Kenya Institute of Curriculum Development and practicing teachers
Constitution of Test panels	Panelists engaged for each of the learning area – English, Mathematics and Kiswahili and school health
Review and adapting the testing framework	Testing framework reviewed to include the CBC as well as the 8.4.4 components
Developing and selecting test samples	Six samples generated and four samples adopted to be used in the assessment
Pretests	Pre-tests held (urban and agricultural sub-counties)
Reviewing tests	Tests reviewed after the pre-test
Sub-County wide pilot	Sub-County wide pilot conducted
Test validation	English readability test conducted Type Token Ratio conducted

Assessing English and Kiswahili – reading and comprehension

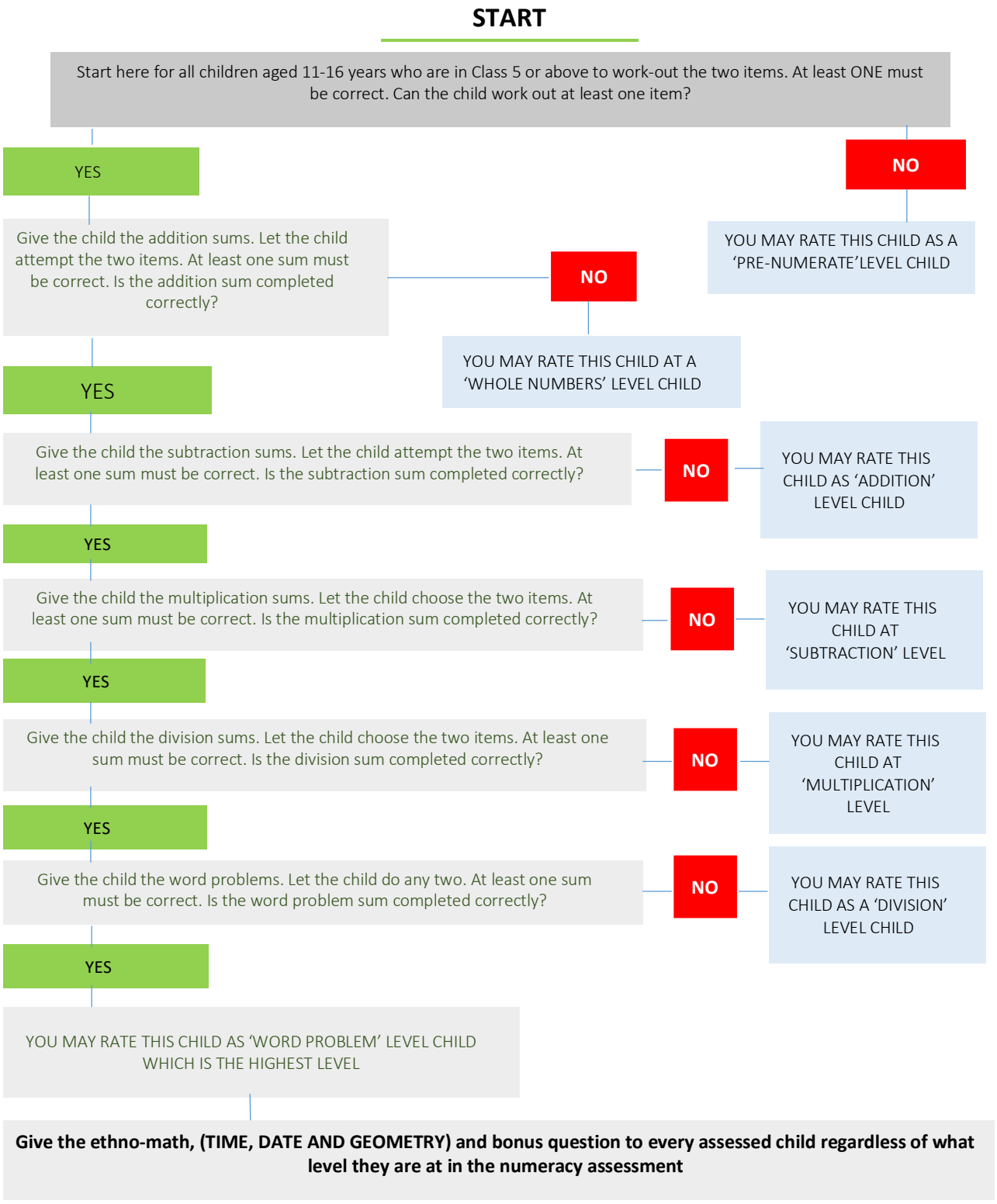
English and Kiswahili reading were assessed at five different levels using Grade 3 (CBC) and Class 5 (8-4-4) level tests. The levels were letters (silabi), words (maneno), paragraph (aya), story (hadithi), and comprehension. Assessing began at letter/syllable level (for CBC) then moved up to the reading and comprehension level. A child was graded at the highest level s/he reached. The assessment of the child commenced with the English test followed by Kiswahili. There were four samples of tests used to allow for variation in households with more than one child qualified for assessing. Reading for fluency was assessed in the first three levels and reading for comprehension was assessed in the last two levels.



Assessing numeracy

The numeracy test for Class 5 had six levels namely; Addition, Subtraction, Multiplication, Division and Word Problems. Grade 3 had Count and Match, Number Recognition (100-999), Place Value, Addition, Subtraction, Number Patterns, Multiplication and Division. Testing began at the lowest level and moved upwards to Division and Word Problems for Grade 3 and Class 5 tests respectively. A child was graded at the highest level reached.

Numeracy Assessment Class 5



Numeracy Assessment Grade 3

Give the ethno-math and bonus question to every assessed child regardless of the level they are.

Appendix 3: Sampling

The 2021 sampling for Usawa Agenda's Uwezo National Assessment utilized the list of Enumeration Areas (EAs) created by the Kenya National Bureau of Statistics for the 2019 Kenya Population and Housing Census enumeration as a sampling frame. The Enumeration areas were developed based on the number of households and could be a village, part of a village or a combination of villages. On average, an EA is to have 100 households, however, the measure of size (MOS) of an EA was set at between 50-149 households. The EAs are categorized into rural and urban. The list of EAs underwent cleaning to check for proper coding of units, check for any duplications, and check for completeness and to net out the list of special EAs which contained non-conventional households, thereafter, the list was designated as a sampling frame for the survey.

The sample size for the 2021 National Learning Assessment survey was computed at 2,000 Enumeration Areas. Following the Kenya 2010 Constitution, a total of 47 counties were created and they were recognized as the highest sub-national administrative areas of Kenya. The survey sample was, therefore, allocated to all the 47 counties to be able to produce county level estimate, this resulted to 50 study domains namely; National, Rural, Urban and the 47 counties.

The sampling frame was stratified with the counties forming the first level of stratification then into rural and urban areas, yielding 92 strata as follows; 47 counties and their rural and urban with Nairobi and Mombasa counties being purely urban. The sample of 2,000 EAs for the survey was allocated to the 92 strata using square root allocation method, this was to power counties with low population sizes to have sufficient sample sizes to allow for county level estimation of indicators. The sample was then drawn independently from each sampling stratum using probability proportional to size selection method. Prior to selection, the frame was further implicitly stratified by geographic location to ensure spread of the sample across the Country. In addition to the 2000 EAs, 250 EAs were drawn as replacement sample while 20 EAs in Machakos County were sampled for pilot exercise.

Appendix 4: Distribution of EAs by County and Location

COUNTY	RURAL	URBAN
MOMBASA	0	45
KWALE	26	16
KILIFI	24	20
TANA RIVER	22	16
LAMU	27	9
TAITA/TAVETA	22	17
GARISSA	24	17
WAJIR	24	16
MANDERA	23	17
MARSABIT	23	16
ISIOLO	18	19
MERU	31	15
THARAKA-NITHI	27	13
EMBU	27	15
KITUI	31	13
MACHAKOS	25	20
MAKUENI	29	14
NYANDARUA	28	14
NYERI	26	17
KIRINYAGA	25	17
MURANG'A	30	15
KIAMBU	20	29
TURKANA	26	15
WEST POKOT	28	12
SAMBURU	24	14
TRANS NZOIA	26	17
UASIN GISHU	22	23
ELGEYO/MARAKWET	29	10
NANDI	29	13
BARINGO	26	15
LAIKIPIA	24	17
NAKURU	23	25
NAROK	28	15
KAJIADO	20	25
KERICHO	28	15
BOMET	31	11
KAKAMEGA	31	16
VIHIGA	28	13
BUNGOMA	30	15
BUSIA	27	15
SIAYA	30	13
KISUMU	23	21
HOMA BAY	30	14
MIGORI	27	16
KISII	29	16
NYAMIRA	28	13
NAIROBI CITY	0	52

Notes

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