DRAFT

"Evaluation of knowledge level of pupils of 10^{th}-11^{th} classes on the pilot school course "Basics of Healthy Lifestyle and Family".

INTRODUCTION

Brief conclusions

i. The knowledge level of pupils on most of the course subjects is not sufficiently high,
ii. The lowest level of knowledge was demonstrated by pupils from the Syrdarya Province,
iii. The knowledge level of boys is significantly lower that the same of girls,
iv. The knowledge level of pupils from rural schools is considerably lower than that of pupils from urban schools,
v. School children have demonstrated sufficiently high level of knowledge of AIDS transmission ways.

Methodology

This survey is the first stage (Base-line Survey) of the complex investigation. Its main purposes are:

- Evaluation of knowledge of pilot school pupils on the questions, which are to be covered in training manual.
- Obtaining of basic/source information about the level of target group representatives' awareness by key indicators for implementation of further evaluation.

Survey regions:
The present survey covers seven regions of Uzbekistan. Among them:

- Tashkent city;
- Tashkent Province
  - Yangiyul
  - Kibray
- Syrdarya Province
  - Gulistan
  - Mirzaobad district
- Jizzak Province
  - Jizzak
  - Zaamin district

The survey areas listed above can be conditionally divided into three types:
First – the capital (Tashkent city)
Second – province capitals and towns adjacent to the capital (Gulistan, Jizzak, Yangiyul, Kibray)
Third – district capitals (Mirzaobad and Zaamin districts)

All the three survey zones represent formally urban types of settlements. However, each of them has its own specificity, which in fact, does not allow levelling them to one type of settlement. Some of the listed settlements can be provisionally identified as localities, whose way of life is close to the rural one (in particular, district capitals). Therefore it can be preliminarily concluded that survey results obtained in district capitals could be extrapolated, under certain circumstances, to rural area as well.

Key informants:
Pupils of senior classes of secondary schools from the pilot regions were the key informants in course of the survey. Pupils of 10^{th} and 11^{th} classes were involved in the survey.

Quantitative methods were used for evaluation of knowledge level of 10th and 11th class pupils. For this stage, questionnaires have been developed – test questionnaire for pupils of 10th classes, test questionnaire for pupils of 11th classes and express-questionnaire for pupils of 10th-11th classes.
Each of pupils has filled in two questionnaires – the express questionnaire and the test questionnaire for his/her class (10th or 11th, respectively).

The information collected in course of the field part of survey was treated with a number of preliminary processing procedures –fixation of scores, formalization of answers to open questions.

After that the information was converted into electronic form using entry software (Microsoft Access package) and databases were formed. Processing of the databases, compiling of conjugation and frequency distribution tables was carried out through SPSS 10.0 environment. When calculating conjugation tables, among the main profiles used were: sex, region, city/village, teaching language, teacher, class[1].

During execution of this part of the survey, 212 pupils of 10th classes and 237 pupils of 11th classes from ten pilot schools were questioned.

[1] Distribution under this profile was made for the express questionnaire only.

CHAPTER 2. Evaluation of knowledge level of pupils of 10th-11th classes.

Pupils of 10th-11th classes were offered test questionnaires on the topics, which are already taught or will be taught later and the express questionnaire. The main tasks of this survey stage (Base-line Survey) include:

- Evaluation of knowledge of pilot school pupils on the questions, which are to be covered in training manual.
- Obtaining of basic/source information about the level of target group representatives' awareness by key indicators for implementation of further evaluation.

Evaluation of level knowledge of 10th class pupils

For school children studying in 10th class, the test questions on 6 basic modules were provided for. Numbers of questions offered for each theme and each particular module are not the same. Such discrepancy is stipulated by:

- Difference in complexity of themes stated in the modules;
- Number of themes covered by a module.

Pupils were offered to choose one answer from the proposed options – that one, which, in their opinion, is the most correct. The test questionnaire did not contain the option "difficult to reply[2]". The received answers were compared to the correct ones as on the key. If a pupil answered a question correctly, he/she received one score per a question. Otherwise he/she received 0 (zero) scores for the given question.

For the module *"Reproductive health and healthy family: basic facts and skills. Examination of human body and changes occurring at adolescent age"*, six questions were provided for. Thus, the maximum score, which a tenth-former could achieve under this module, was six.

Results of pupils' scores under this module are given in the table below.

Number of scores obtained by pupils	Number of pupils, who had obtained these scores	Percentage of pupils, who had obtained these scores (%)
0	7	3.3
1	18	8.5
2	41	19.3
3	55	25.9
4	52	24.5
5	35	16.5
6	4	1.9
TOTAL	**212**	**100,0**

A more detailed analysis of distribution of correct and incorrect answers of pupils presents the following situation.

The analysis of collected information has shown that over a half (67.5%) of pupils could rightly answer the question of what is the adolescent age. While percentage of girls, who chose the right option was somewhat higher that the same of boys (74.1% and 63.0%, correspondingly).

[2] However, it is necessary to note, that a number of pupils omitted some questions or wrote "d.t.r." beside them, i.e. "difficult to reply". In the cases of unavailability of answers or availability of "d.t.r." for the question, a pupil was given 0 (zero) scores.

As it can be supposed the share of pupils from urban schools, who chose the correct answer, significantly exceeded the same indicator of their coevals from rural schools (71.7% vs. 58.2%).
Somewhat unexpected result was noted in distributing answers of pupils by regions. If in the Tashkent city, Tashkent and Jizzak Provinces the share of those, who chose the right answer, exceeded 70.0%, then in Syrdarya Province this indicator made only 40.0%.
Distribution of tenth-formers' answers to this question has demonstrated that in the classes, where the subject was professed by teacher or both teacher and physician, the share of right answers significantly exceeds the share of pupils, who were able to reply correctly, from the classes, where the subject was taught by a physician only (67.9%, 69.2% and 42.9%, correspondingly).

The next question under this module was: "What changes do occur to a human at adolescent age"?
Again, girls turned out more informed on this question. The indicator of right answers among girls makes 65.9%, while the same of boys – only 54.3%.
There is no essential difference in the percentages of right answers to this question between urban and rural tenth-formers – 59.3% and 58.2%, accordingly.
Distribution of answers to the question by regions has demonstrated that answering the question by Syrdarya school children was considerably poorer than the same of their coevals from other regions. Only a third of pupils here – 35.0% - could give a right answer. Similar indicator in the Jizzak Province, for example, makes 74.4% of correct answers.
Similarly to previous question, the share of correct answers among those pupils, who were trained either by teacher (63.6%), or by a teacher together with a physician (50.8%), is higher than the same of those, who were taught by a physician (42.9%).

The next question under the first module, reply to which shows the knowledge level of tenth class pupils, was: "What does influence on forming of sexual characters"?
Only a little more than a half of pupils – 51.4% – could choose the right option of answer to the question. Besides, the level of awareness ob boys turned out to be higher than that of girls (55.1% and 45.9%, accordingly).
Distribution of correct answers to this question between urban and rural school children was somewhat unexpected. Here, the percentage of right responses of rural pupils exceeds the similar indicator of their urban coevals – 55.2% and 49.7%, correspondingly.
Distribution of correct answers of pupils by regions is shown in the table below.

	Tashkent city	**Tashkent Province**	**Syrdarya Province**	**Jizzak Province**
Share of right answers, %	**50.9**	**42.1**	**55.0**	**53.8**

And for this question again, joint teaching by teacher and physician or by a teacher only is more effective than training of children by a physician solely (46.2%, 54.3% and 42.9% respectively).

The following question offered to pupils – "What do you call the male hormone?" – turned out quite difficult for tenth-formers. It could be correctly answered by 54.2% of surveyed school children. Girls replied to the question the best. If the number of right answers among girls makes 61.2%, then the same indicator among boys is 49.6%.
Distribution of right answers depending on urban or rural location of a school shows that knowledge level of urban pupils (57.9%) in this question is somewhat higher than that of the rural ones (46.3%).
Analysis of pupils' answers distribution by regions suggests that school children from the capital and the Tashkent province are better informed on the question than their contemporaries from other regions.

	Tashkent city	Tashkent Province	Syrdarya Province	Jizzak Province
Share of right answers, %	**58,8**	**63,2**	**45,0**	**46,2**

Analogously to other questions under the module, the best knowledge was demonstrated by pupils from the classes, where the subject was taught by a teacher himself/herself or by a teacher together with a physician.

The next question of test questionnaire – "What hormones do exist in female organism?" the survey of school children demonstrated really better awareness of girls than of boys. However, even girls' indicators are quite low. Only 37.7% of correct answers to the question was registered; the share of right answers among girls made 43.5%, while the same among boys – only 33.9%.
Analysis of distribution of tenth-formers' answers to the question has revealed the next surprise – number of correct answers among rural pupils is higher than that of their coevals from cities (35.2% and 43.3%, accordingly).
Also, the share of correct answers among metropolitan school children was unexpectedly low – 34.2%, while, for example, in the Tashkent Province the same indicator equaled to 52.6%.
The survey has shown that the best knowledge was demonstrated by pupil from those classes, where a teacher himself/herself or a teacher and physician professed the subject.

And, finally, the last question related to the first module – "Who are characterized by change of voice, development of genitals, and increase of height, weight and muscle bulk at adolescent age?"
The share of right answers of tenth-formers to this question was somewhat higher than for two previous questions. Almost a half of pupils (46.2%) could choose the correct answer. Besides, the difference in percentage of true answers between boys and girls is minimal – 45.7% and 47.1%.
The difference is higher between similar indicators of urban and rural school children. The share of correct answers of 10^{th} class pupils living in villages makes 52.2%, and among urban pupils – only 43.4%.

The test questionnaire provided for 7 questions to evaluate the knowledge of pupils on the second module themes – "Healthy parents – healthy children. Physiological health and hygiene of parents and children. Family hygiene". Thus, the maximum score, which could be achieved by a pupil under this module, was 7.

Resulting number of scores awarded to pupils is shown in the table below.

Number of scores achieved by pupils	Number of pupils, who achieved these scores	Percentage of pupils, who achieved these scores (%)
0	1	0.5
1	5	2.4
2	7	3.3
3	27	12.7
4	53	25.0
5	72	34.0
6	35	16.5
7	12	5.7
TOTAL	**212**	**100.0**

Short description of situation of answering to the specific questions, revealing knowledge of tenth form children on the module topics is given below.

The first question from this section was: "When a physiological and psychological formation of a human takes place?"

The majority of pupils answered the question quite successfully. 72.6% of tenth form pupils could choose the right answer. Moreover, both boys (73.2%) and girls (71.8%) coped sufficiently well with the question.
Distribution of answers by the urban/rural profile shows that urban pupils succeeded in answering better (77.9%), than villagers did (61.2%).
Analysis ob answer distribution by regions demonstrates a higher knowledge level of metropolitan pupils on the question (78.1%), than that of school children from other regions. The lowest value of correct answers' share was recorded for tenth-formers of the Syrdarya Province. (57.5%).

The following question of the module, offered to school children, was: "What are determinants of healthy maternity and paternity?"
Over a half of pupils (53.8%) successfully chose the right answer among three proposed alternatives. Besides, the share of correct answers of girls considerably exceeds the same indicator of boys (69.4% and 43.3%, respectively).
Distribution of answers by the town/village profile shows that urban pupils were more successful in coping with the question (55.9%), than their rural coevals (49.3%).
Distribution of answers by regions is shown in the table below.

	Tashkent city	**Tashkent Province**	**Syrdarya Province**	**Jizzak Province**
Share of correct answers, %	**60.5**	**47.4**	**45.0**	**46.2**

10th class pupils were offered to choose the most appropriate answer, from their viewpoint, to the question: "What does the health of a child to come depend on?"
Practically, the absolute majority of pupils – 87.7% - chose the right answer. The same situation with big number of correct answers is noted almost in all the profiles. Exclusion is found in distributing answers by the urban/rural profile. Here, the share of right answers among rural pupils is significantly lower than the same or urban pupils (73.1% and 94.5%, accordingly).

The following question, which pupils were offered to answer, was: "What are the factors influencing health and development of children and teenagers?"
The survey has shown that 10th class pupils successfully coped with this test question of the second module – 74.1% of pupils could choose the right answer. Distribution of answers by belonging to male or female sex shows that girls' knowledge on the issue significantly exceeds the knowledge of boys. If 69.3% of boys could give a right answer, then 81.2% of girls did so.
Similarly to other questions characterizing knowledge level of pupils on the module, pupils from 10th classes, who study in urban schools, are better informed than tenth-formers from rural schools (79.3% and 62.7%, respectively).
The table below shows the distribution of percentage of right answers given by pupils from different region to the question: "What are the factors, which influence health and development of children and teenagers".

	Tashkent city	**Tashkent Province**	**Syrdarya Province**	**Jizzak Province**
Share of correct answers, %	**81,6**	**52,6**	**65,0**	**71,8**

The next question of test questionnaire for 10th class pupils was: "What is the subject matter of hygiene of children and teenagers?"
This question turned out to be quite difficult for tenth-form pupils. The analysis of answers' distribution has shown that only a third of pupils (36.8%) could give a correct answer to that. Similar distribution of answers to the question was noted for all the profiles without exclusion.

The next to last question related to themes of the second module was: "What food should be preferred at adolescent age?"

Majority of pupils have coped with the question quite successfully – 62.7% of school children gave right answer. Remarkably, boys answered this question more successfully than girls did. Thus, if 58.2% of girls provided right answer, then 64.8% of boys did so.
Considering the distribution of children's answers by the region profile, it is necessary to note that the highest level of knowledge on the issue was demonstrated by metropolitan pupils (66.7%), while school children from the Syrdarya Province managed to answer the question somewhat worse than others did (55.0%).

And, finally, the last question, thematically incorporated to the second question, was: "Is usage of alcohol drinks allowable at adolescent age?"
Again, similarly to the previous question, there were no difficulties for pupils. The survey has shown that 70.8% of tenth-formers chose the right answer. And it is not surprising that percentage of correct answers among girls exceeds the similar indicator among boys (83.5% and 62.2%, accordingly).
No significant differences by other profiles of the question were noted.

3 questions were provided for in order to evaluate knowledge of 10t class pupils on the topics of the fourth module – "Contraception and protection against HIV/AIDS/STD. Sexual transmission and prevention of HIV and STD". Therefore, the maximum score a pupil could get under this module was 3. A little number of questions under the subject was stipulated by availability of a separate questionnaire on the subject of HIV/AIDS, results of which will be presented in the relevant section.

Resulting number of scores awarded to pupils is shown in the table below.

Number of scores achieved by pupils	**Number of pupils, who achieved these scores**	**Percentage of pupils, who achieved these scores (%)**
0	10	4,7
1	54	25,5
2	113	53,5
3	35	26,3
TOTAL	**212**	**100,0**

Evaluation of knowledge level of 10th class pupils on particular topics of the fourth module is given below.

Majority of tenth form pupils coped quite successfully with the first question – "In your opinion, are there registered cases of HIV/AIDS in Uzbekistan?" Most pupils – 85.8% chose the right answer. However, despite of sufficiently high figure, the knowledge level on this question was somewhat lower than it could be forecasted before the survey.
In general, the similar situation with correct answers to the question was observed for all other profiles.

The following question on the module's theme was: "Is AIDS currently curable disease?"
The share of correct answers made 68.4%. However, even such, seemingly, good result does not inspire with optimism – three of ten pupils consider AIDS as currently curable disease.
The survey has shown that the level of knowledge on curability of AIDS significantly differs for urban and rural school children. Thus, where 72.4% of 10th class pupils – survey participants from urban schools could give correct answer, then the similar indicator for rural pupils is below 60.0% (59.7%).
The highest level of awareness of incurability of AIDS was demonstrated by tenth-formers in the Tashkent province (73.7%). Probable reason of such situation is that 10th classes were represented by a school in Yangiyul – the town, which together with Tashkent is reckoned as one of pestholes of HIV/AIDS, and where serious efforts are being made to propagate and strengthen the awareness of HIV/AIDS.
While the situation with higher percentage of right answers of pupils in the Tashkent Province is explainable, then low share of correct answers of pupils from Jizzak and Syrdarya Provinces (56.4% and 67.3% respectively) is not quite understandable and, therefore, arouses anxiety.

The final question of the module was: "What is HIV?"
The survey has shown that 10th class pupils do not have knowledge of what is the nature of human immunodeficiency virus. The share of rights answers was 26.9%. Similar situation is noted by all profiles under review.

The following theme is the basic subject of the fifth module – "Drugs and their influence on human health". Tenth form pupils were offered 3 questions. Thus, the maximum score, which a pupil could obtain under this module, is 3.

Resulting number of scores awarded to pupils is shown in the table below.

Number of scores achieved by pupils	Number of pupils, who achieved these scores	Percentage of pupils, who achieved these scores (%)
0	14	6.6
1	90	42.5
2	80	37.7
3	28	13.2
TOTAL	**212**	**100.0**

Evaluation of knowledge level of 10th class pupils on particular topics of the fifth module is given below.

During the surveys pupils had to choose the right answer to the question: "What are drugs?"
Analysis of the collected information allows saying that majority of pupils, at least among those surveyed, have a faint idea of what are drugs. Only 40.6% of 10th class pupils could chose the right option of answer.
In general, the situation is similar in all the profiles except the region profile.

	Tashkent city	Tashkent Province	Syrdarya Province	Jizzak Province
Percentage of correct answers, %	**39.5**	**42.1**	**57.5**	**26.2**

Distribution of answers given in the table demonstrates significant difference (over two times) in awareness of this question among pupils from different regions. Thus, for example that is notable in percentages of rights answers of pupils in Syrdarya and Jizzak Provinces.

Besides, 10th class pupils were proposed to answer the question "Does narcotic dependence of children and teenagers develop?"
Again, a total-lot result was not reached for this question. Certainly, absolute majority of pupils (86.9%), and, especially, girls (91.8%) gave correct answer. However, some alarming aspects should be noted; for example, a quarter of pupils (survey participants) from rural schools believe that narcotic dependence of children and teenagers cannot develop.

Using the test questionnaire it was intended to obtain answers showing the awareness level of tenth-formers to the question: "How do drugs influence on human organism?".

Analysis of the collected information indicates that majority of 10th class pupils lack for clear understanding of drugs' impact on human organism. Only 31.1% of pupils could provide right answer to the question of test questionnaire. Similar situation is observed for all the profiles under review.

The test questionnaire provided only for two questions in order to evaluate the level of knowledge and skills of 10th class pupils on the fifth module themes – "If you want to be healthy. Skills of communication and decision making". Therefore, the maximum score, which a pupil could obtain, was 2.

Resulting number of scores awarded to pupils is given in the table below.

Number of scores achieved by pupils	Number of pupils, who achieved these scores	Percentage of pupils, who achieved these scores (%)
0	37	17.5
1	83	39.2
2	92	43.3
TOTAL	**212**	**100.0**

The survey has shown that over a half of 10th class pupils (59.9%) could choose the right answer to the question "Who is responsible for made decision?"
The percentages of right answers of pupils studying in rural and urban schools are remarkable for significant difference between them. Thus, if share of correct answers of urban pupils makes 64.8%, then the similar indicator of rural school children is 49.3%.
Distribution of correct answers of pupils by residence regions is given in the table below.

	Tashkent city	Tashkent Province	Syrdarya Province	Jizzak Province
Percentage of correct answers, %	**63.2**	**47.4**	**62.5**	**53.8**

As it can be seen in the table, pupils in the Tashkent Province demonstrated the lowest level of knowledge.

The next question, revealing the knowledge level of 10th class pupils on the module was: "In your opinion, what should be the basis of our decisions?"
The number of rights answers of pupils to this question is somewhat higher than the same figure for the previous question – 66.0%.
The highest percentage of correct answers was recorded for groups of girls (72.9%) and urban school children (69.7%). Besides, it is necessary to note, that in other groups the share of right answers does not essentially differ from the share of correct answers in the "leader" groups.

The test questionnaire contained six questions to evaluate the level of knowledge and skills of tenth-formers on the topics of the last, sixth module – "Tuberculosis. The disease and main ways of infecting and protection". The maximum score, which a pupil could obtain, was 6.

Resulting number of scores achieved by pupils is given in the table below.

Number of scores achieved by pupils	Number of pupils, who achieved these scores	Percentage of pupils, who achieved these scores (%)
0	5	2.4
1	19	9.0
2	46	21.7
3	58	27.4
4	60	28.3
5	23	10.8
6	1	0.5
TOTAL	**212**	**100.0**

A significant number of questions was envisaged for this module. That is conditioned by the fact that tuberculosis is one of the most dangerous diseases, also having some social tint. Therefore a bigger number of questions was provided under this module, which allows more detailed evaluating of the level of knowledge and skills of tenth-formers with respect to this disease.

"What is tuberculosis?" – was the first question of the series related to this module.
The survey has demonstrated that over a half of pupils were unable to supply the right answer. The percentage of correct answers was 45.3% only. The similar picture is observed practically in all the groups under review. Pupils from the Tashkent and Jizzak Provinces stand out positively against this background. The survey has shown that in these regions the share of correct answers has exceeded the level of 50.0% (52.6% and 56.4%, respectively).

The results obtained for the following question – "Which organs are affected by tuberculosis?" – correlate to those ones observed for the previous question: the percentage of right answers equals to less than a third – 30.2%. Moreover, the share of correct answers among girls made 25.9% (a quarter) only, while the same indicator of boys amounts to 33.1%.
This question was more complicated for urban school children than for their rural contemporaries. When the share of correct answers among town dwellers was 26.9%, then among rural habitants it was 37.3%.
The survey has shown that practically nobody of 10^{th} class pupils in the Syrdarya Province could rightly answer the question about tuberculosis impact on human organism. The share of right answers in this region made only 15.0%. Surprisingly, the similar situation was noted in the capital as well. Here, the percentage of correct answers equalled only to 23.7%.

The next question under the module – "What is the main way of tuberculosis control?" – did not caused such difficulties. The number of right answers to the question exceeded 50.0% and made 50.9%. As regards the distribution of pupils' answers by different profiles, the analysis of collected data showed that analogous level of correct answers is specific for all the profiles.

Significantly better result was noted in pupils answering to the question: "Is tuberculosis curable disease?"
Over a half (64.2%) of school children managed to reply correctly. Similar situation is traced in all the groups under review. Exclusion is made by distribution of correct answers by pupils' residence regions. Thus, for example, over a half of pupils in the Tashkent Province were unable to reply correctly. The share of right answers was 42.1% only.

The survey has shown that a concrete question causes difficulties again. A little more than a half of pupils (52.8%) responded correctly to the question "What are the main symptoms of tuberculosis disease?" Noteworthily, awareness of symptoms of this dangerous disease is much better among girls than boys (70.6% and 40.9%, correspondingly). Besides, urban school children are better informed on tuberculosis symptoms than their coevals from rural schools (56.6% and 44.8%).
And again, school children in the Tashkent Province demonstrated the lowest level of knowledge under this module. The share of correct answers in this region made 36.8% (for comparison, 57.9% in the capital).

Strangely enough, but having no clear understanding of tuberculosis nature, over a half of 10th class pupils could rightly answer the question "What are the ways of getting infected with tuberculosis?" The share of correct answers to the last question under this module made 61.8%.
The survey has shown that pupils of urban schools are considerably better informed about the channels of tuberculosis infection than pupils of rural schools are. When the percentage of correct answers of town-dwellers amounted to 70.3%, then the same of rural people was only 43.3%.

Evaluation of knowledge level of 11th class pupils

As is the case with pupils of 10th classes, test questions on 7 basic modules were specified for school children studying in 11th classes. The number of proposed questions differs for each theme and each particular module. Such difference is determined by inequality of proposed themes' complicacy. In addition, the number of themes under consideration in different modules is variant.
Pupils were offered to choose one answer from the proposed options – that one, which, in their opinion, is the most correct. The test questionnaire did not contain the option "difficult to reply[3]". The received answers were compared to the correct ones as on the key. If a pupil answered a question correctly, he/she received one score per a question. Otherwise he/she received 0 (zero) scores.

The test questionnaire provided for 6 questions to evaluate the knowledge level on the first module for 11th class – "Reproductive health and healthy family: basic facts and skills".

Distribution of scores obtained by pupils under this module is given in the table below.

Number of scores obtained by pupils	**Number of pupils, who had obtained these scores**	**Percentage of pupils, who had obtained these scores (%)**
0	10	4.2
1	27	11.9
2	46	19.4
3	48	20.3
4	56	23.6
5	40	16.9
6	10	4.2
TOTAL	**237**	**100.0**

[3] However, it is necessary to note, that a number of pupils omitted some questions or wrote "d.t.r." beside them, i.e. "difficult to reply". In the cases of unavailability of answers or availability of "d.t.r." for the question, a pupil was given 0 (zero) scores.

Over a half of pupils (57.0%) could supply right answers to the first question on the module's themes – "What does influence on forming of sexual characters?" the survey has shown that percentage of correct answers of boys considerably exceeds the same indicator of girls – 60.7% and 52.0%, respectively. Very essential difference shows itself in answers of school children from urban and rural areas. The share of urban pupils, who were able to provide correct answer, was 65.2%, while the share of right answers of rural pupils was only 28.3%.
Distribution of correct answers by residence regions is given in the table below.

	Tashkent city	**Tashkent Province**	**Syrdarya Province**	**Jizzak Province**
Share of right answers, %	**65.2**	**43.8**	**38.9**	**54.8**

The table shows that school children from the Syrdarya Province have demonstrated somewhat worse knowledge on the question, than pupils from other regions did.

Similarly to the previous question, the next one – "What do you call the male hormones?" – did not cause much difficulties; over a half of pupils (58.2%) chose the right answer. Boys replied this "male" question somewhat better than girls did (60.0% and 55.9%).
As in the case of the previous question, pupils of 11th classes of urban schools responded to this question significantly better than their contemporaries from rural schools – 67.4% and 26.4%, accordingly.
The best indicators (the highest shares of correct answers) among the regions were noted for metropolitan pupils (68.1%), while pupils in the Jizzak Province have coped with the question poorly – 20.9% of right answers.
As evident from results of collected data processing, the following question of the test questionnaire – "Who are characterized by change of voice, development of genitals, and increase of height, weight and muscle bulk at adolescent age?" – turned out to be complicated for pupils of final form. Only 40.5% of pupils could correctly reply to the question. Moreover, rural pupils' indicators of answering the question were significantly better than the same of their coevals from towns (35.9% and 56.6%, correspondingly).
The table below shows that metropolitan school children virtually failed to correctly answer the question, in contrast to 11th class pupils from other regions.

	Tashkent city	**Tashkent Province**	**Syrdarya Province**	**Jizzak Province**
Share of correct answers, %	**29.0**	**59.4**	**55.6**	**54.8**

The question stated further – "The right of each citizen for protection of his/her health is stipulated by:…" – reveals a general erudition of pupils within the themes of the first module. Unfortunately, less than a half of survey participants could give right answers – 45.6%.
Distribution of correct answers to the question by the town/village profile has shown that town-dwellers better coped with the question than rural school pupils did (48.9% and 34.0%).
Among the regions, the Tashkent city was in the lead by the share of correct answers. Over a half of school pupils in the capital (55.1%) managed to reply correctly, while the best indicator among other regions was 37.5% (the Tashkent Province).

The question "What laws have been adopted in our country for health protection?" was one of the most successful questions as to percentage of right answers. 68.8% of survey participants responded to the question successfully. Besides, girls have shown the highest level of knowledge on the question. The percentage of correct answers among girls equaled to 74.5%, while among boys it was 64.4%.

And again, as is the case with majority of questions related to themes of this module, pupils studying in 11th class of urban schools demonstrated a higher level of knowledge (72.3%), than their contemporaries from rural school did (56.6%).

Three questions were provided for to evaluate knowledge level of 11th classes on the second module – "Reproductive health of teenagers in Uzbekistan". Thus, the higher score, which a pupil could obtain, was 3.
Distribution of scores awarded to pupils by results of filling in the test questionnaire is given in the table below.

Number of scores obtained by pupils	Number of pupils, who had obtained these scores	Percentage of pupils, who had obtained these scores (%)
0	6	2.5
1	51	21.5
2	110	46.4
3	70	29.5
TOTAL	**237**	**100.0**

The first question of this module was: "What signs occurrence of menstruation of girls?" Most of pupils (70.5%) successfully coped with the question. Besides, the percentage of right answers was practically similar for both boys and girls – 70.6% and 70.4%, respectively.
Significant difference in percentages of correct answers showed in distribution of answers by the town/village profile. If the share of correct answers of urban pupils makes 76.6%, then the same of their rural coevals is 49.1%.
Distribution of right answers by regions is given in the table below.

	Tashkent city	Tashkent Province	Syrdarya Province	Jizzak Province
Share of right answers, %	**77.5**	**68.8**	**55.6**	**58.1**

11th class pupils were asked about the optimal inter-birth interval.
This question was quite complicated for pupils – less than a half of survey participants (46.0%) could correctly respond to it. As it can be supposed, the share of right answers among girls was considerably higher than the similar indicator of boys (55.9% and 38.5%).
Distribution of pupils' answers by the town/village profile was somewhat surprising. The share of right answers among pupils from urban schools was 44.6%, while the percentage of correct answers of rural pupils amounted to 50.9%.

Pupils were most informed with respect to consequences of closely-related marriages. The share of right answers to the question equaled to 86.1%. While, among girls this indicator approximated to the value of 100.0% (95.1%). For other profiles under review, the share of correct answers corresponds to general figure.

Five questions were provided for to evaluate the knowledge level on the third module for 11th class – "Immune system and immunization". The highest score, which a pupil could achieve subject to correct answering the questions of test questionnaire, was 5.
Distribution of scores awarded to pupils by results of filling in the test questionnaire, is given in the table below.

Number of scores obtained by pupils	Number of pupils, who had obtained these scores	Percentage of pupils, who had obtained these scores (%)
0	12	5.1

1	62	26.2
2	77	32.5
3	56	23.6
4	24	10.1
5	6	2.5
TOTAL	**237**	**100.0**

The survey has demonstrated that less than a half of pupils of 11th classes of those who participated in the survey could provide the true definition of the "immunity" term. Percentage of correct answers made 39.2%. Besides, girls coped with the question more successfully than boys did (42.2% and 37.0%).
The table below shows that school children in the Tashkent and Jizzak Provinces have demonstrated their knowledge on the question, which essentially exceeds, for example, the knowledge of metropolitan pupils.

	Tashkent city	**Tashkent Province**	**Syrdarya Province**	**Jizzak Province**
Percentage of correct answers, %	**29.7**	**71.9**	**36.1**	**51.6**

Also, low level of knowledge was demonstrated by pupils with regard to the question of what determines the immunity. The survey has shown that only 38.8% of final form pupils chose the correct answer. Even more eloquent is the distribution of right answers by urban or rural location of schools. Where urban pupils could provide 44.6% of right answers, then similar indicator of their rural coevals made 18.9%.
The highest percentage of correct answers among the regions was noted in the capital – 45.7% (for example, in the Syrdarya Province – 38.9%).

Similarly, less than a half of pupils coped with the following question – "How the acquired immunity develops?" Here, the share of right answers was 43.0%.
As is the case with the previous question, pupils from urban schools demonstrated a higher knowledge level, than pupils from rural schools did (45.1% and 35.8%).
Distribution of answers by other profiles under consideration is alike.

The question "In your opinion, what are the diseases, against which children's immunity develops, who receive prophylactic injections since their birth?" was not so much complicated as two previous ones. Here 67.1% of right answers were obtained.
Distribution of answers by the profiles is quite typical – the share of correct answers of urban pupils (68.5%) was higher than that of rural pupils (62.3%), and capital pupils coped with the question better (73.9%), than school children from other regions.

The number of right answers to the question "What can cause immunodeficiency?" turned out as one of the lowest figures not only for subjects of this modules, but also for all questions of the test questionnaire. Only 27.0% of pupils managed to reply correctly. One of the lowest figures of right answer share was recorded among the pupils studying in rural schools.

Seven questions were provided for in order to evaluate the knowledge level on the fourth module for 11th class – "HIV/AIDS/STD (review of epidemic, spread)". Thus, the highest score a pupil could obtain subject to correct responding to the questions of test questionnaire of this module was 7.
Distribution of scores awarded to pupils by results of filling in the test questionnaire, is given in the table below.

Number of scores obtained	**Number of pupils, who had**	**Percentage of pupils, who**

by pupils	obtained these scores	had obtained these scores (%)
1	5	2.1
2	31	13.1
3	65	27.4
4	117	49.4
5	19	8.0
TOTAL	**237**	**100.0**

The questions for determining the knowledge level on this module included not only those about HIV/AIDS. They also covered a number of "extreme" topics. The first question was pertinent to such category.

"In your opinion, what does the modern contraception include?". Pupils of final form failed to respond to this question. The share of those, who managed to do that, was 18.6%. However, the analysis of answer distribution by profiles indicates that the situation is not similar for all the groups. The survey of pupils in the groups of those studying in rural schools has shown that the share of right answers makes 41.5%, while the same indicator for urban pupils is 12.0% only.
Distribution of pupils' answers by residence regions indicates that the least number of correct answers was noted with metropolitan school children. The share of Tashkent pupils, who correctly replied to the question, was only 9%.

The survey has shown that most pupils have excellently coped with the question: "In your opinion, what is the most reliable protection against AIDS and STD?". 84.4% of pupils supplied correct answer to the question. The share of right answers of urban pupils made 91.3%.
Distribution of right answer share by regions is given in the table below.

	Tashkent city	**Tashkent Province**	**Syrdarya Province**	**Jizzak Province**
Share of right answers, %	**93.5**	**84.4**	**63.9**	**67.7**

Analysis of distribution of pupils' answers has shown that majority of survey participants managed to correctly respond to the question: "Can a woman conceive after first coitus?". The share of such answers equaled to 76.8%.
Distribution of answers by profiles represents a typical picture – town-dwellers and metropolitan pupils demonstrate a higher knowledge level on the question as compared to rural pupils and school children from other regions.

Also, pupils have successfully managed with two last questions under the module: "Can a child be infected with AIDS when being breast-fed by a HIV-positive mother?", and "Is it possible to be infected with HIV and AIDS through syringes, which were used for injections or blood transfusion?".
Where 77.2% of right answers were obtained for the first question, then for the second one – 91.6%. Also, despite of "typical" distribution of right answers' percentage by the profiles, these values virtually coincides with the basic value of correct answers' share for each of the questions.

Four questions were provided for to evaluate the knowledge level on the fifth module for 11th class – "General human health. Extragenital diseases". Consequently, a pupil, who correctly responded to questions of the test questionnaire for this module, could obtain 4 scores.
Distribution of scores awarded to pupils by results of filling in the test questionnaire, is given in the table below.

Number of scores obtained	**Number of pupils, who had**	**Percentage of pupils, who**

by pupils	obtained these scores	had obtained these scores (%)
0	40	16.9
1	89	37.6
2	65	27.4
3	32	13.5
4	11	4.6
TOTAL	**237**	**100.0**

Analysis of pupils' answers to the question of what does the term "extragenital diseases" include, allows concluding that majority of final class pupils do not know the answer to the question. The survey has shown that less than a third of pupils (32.1%) were able to reply correctly to this question of the test questionnaire. Moreover, the share of rights answers among boys is significantly lower (29.6%), than among girls (35.3%).
Considerable difference is also observed in the percentage of correct answers when distributed by pupils' residence regions.

	Tashkent city	Tashkent Province	Syrdarya Province	Jizzak Province
Share of right answers, %	**34.8**	**28.1**	**25.0**	**32.3**

As is evident from the table, pupils in the Syrdarya Province coped with the question worst of all.

Alike situation is noted also in analyzing pupils' answers to the question about reasons of anemia. Here, 33.3% of pupils could make a correct reply.
Distribution of answers by the profiles can be called "typical" – the best indicators are those of urban and metropolitan school children. Probably, results of pupils in the Tashkent Province are noteworthy. Only 6.3% of survey participants in this region of the country were able to supply a correct answer.

Situation is somewhat better with definition of main symptoms of pancreatic diabetes. 41.8% of pupils – survey participants could rightly reply to the question.
Besides, distribution of answers by profiles of gender, region, and town and village differs from the "typical" one. That concerns the distribution of right answers' percentage by regions. The analysis of collected information has shown that the highest share of correct answers to the question was registered for pupils in the Tashkent Province – 68.8% (for comparison, the share of correct answers of metropolitan pupils is 39.9%).

The last question envisaging evaluation of knowledge level on the module, similarly to other questions under this module, was not simple. Less than a half of pupils (42.6%) provided correct answer to the question: "In your opinion, what can be the consequences of deteriorated functioning of thyroid gland – hypothyroidism?".
Distribution of right answers' shares by gender reveals significant difference when comparing answers of boys and girls. If boys' share of correct answers made 38.5%, then the same indicator of girls was 48.0%.
As for the rest, distribution of answers is within the "typical" pattern.

Five questions were provided for to evaluate the knowledge level on the sixth module for 11^{th} class – "Healthy maternity. Pregnancy, pathologic pregnancy, breast-feeding and human milk". Therefore a pupil responded correctly to questions of the test questionnaire under this module, could obtain 5 scores.

Distribution of scores awarded to pupils by results of filling in the test questionnaire, is given in the table below.

Number of scores obtained by pupils	Number of pupils, who had obtained these scores	Percentage of pupils, who had obtained these scores (%)
0	1	0.4
1	19	8.0
2	73	30.8
3	84	35.4
4	54	22.8
5	6	2.5
TOTAL	**237**	**100.0**

Only 54.9% of final form pupils could choose the right option answer among the three ones proposed in the test questionnaire for the question: "What is pregnancy?"
Generally, distribution of correct answers by all profiles coincides with the basic one. Exclusion is presented by the percentage of right answers by regions. The distribution of shares is given in the table below.

	Tashkent city	Tashkent Province	Syrdarya Province	Jizzak Province
Share of right answers, %	**50.0**	**59.4**	**61.1**	**64.5**

The survey has shown that majority of pupils are aware of normal duration of pregnancy. The share of right answers made 70.5%. Moreover, the percentage of correct answers among boys was higher (73.3%), than that among girls (66.7%).
Big difference under this indicator was noted by the town/village profile. Where the share of correct answers of pupils in towns amounted to 81.5%, then the same indicator of rural pupils was only 32.1%.
Distribution of pupils' answers by regions shows that capital pupils are considerably better informed of normal duration of pregnancy (80.4%), than their coevals from other regions are.

Whereas majority of pupils are informed of normal period of pregnancy, still not all of them are aware of the reasons, which could cause abnormalities in normal course of pregnancy. In particular, as per results of the survey, only 23.6% of school children chose the correct answer.

Analysis of pupils' answers to the question of what is ideal food for an infant has the picture, which is unique for the survey. The percentage of correct answers makes 94.1%. Moreover, the similar indicator of girls is 100.0%.

Notwithstanding such high confidence in the fact that human milk is ideal food for an infant, the question "What are the consequence of breast-breeding for a mother?" posed big difficulties for pupils. Only a third of pupils – survey participants (37.1%) could correctly respond to this question of the test questionnaire. As it may be anticipated before, the chare of correct answers among boys is two times lower than the same indicator of girls (24.4% and 53.9%, respectively).

Four questions were provided for to evaluate the knowledge level on the seventh module – "Care and support of patients. Influence of HIV/AIDS on people, families, society and countries, and means of care and support of ill people". Therefore, subject to rightly responding to questions of the test questionnaire under this module, a pupil could achieve 4 scores.
Distribution of scores awarded to pupils by results of filling in the test questionnaire, is given in the table below.

Number of scores obtained by pupils	Number of pupils, who had obtained these scores	Percentage of pupils, who had obtained these scores (%)
0	41	17.3
1	62	26.2
2	96	40.5
3	28	11.8
4	10	4.2
TOTAL	**237**	**100.0**

Despite of big number of elucidation programs intended to improve the level of awareness of HIV/AIDS, only 37.1% of pupils could answer the question of what is HIV-infection.
The share of those who could correctly reply to the question among rural pupils is considerably below the general figure – 17.0%.
Distribution of correct answers to the question of what is HIV-infection by pupils' residence regions is presented below.

	Tashkent city	Tashkent Province	Syrdarya Province	Jizzak Province
Percentage of right answers, %	**47.8**	**40.6**	**13.9**	**12.9**

Thus, basing on figures given in the table, it can be states that pupils of schools in Syrdarya and Jizzak Provinces do not know what the HIV-infection is.

The results observed for the previous question also correlate with answers to the question: "What is the period, during which a HIV-infected individual can feel himself/herself absolutely healthy, though the virus can be transmitted to other people?"
Processing of collected information and analysis of obtained data indicate that overwhelming majority of 11th class pupils do not know the right answer to this question. The percentage of correct answers to the question equals to 26.2%.
Besides, attention should be paid to the fact that the share of right answers of school children in the Syrdarya Province makes only 8.3% (for comparison, the same for the Tashkent city and the Jizzak Province is 29.0% in each)

The next to last question revealing the knowledge level of pupils on the module subjects was: "Can a man get infected with AIDS from an AIDS-infected man sitting beside him?"
Distribution of answers to the question has come out somewhat surprising. Over a half of 11th form pupils (62.0%) could rightly reply to the question.
Distribution of true answers by different profiles represents the "typical@ pattern – the best indicators are those of urban and capital pupils.

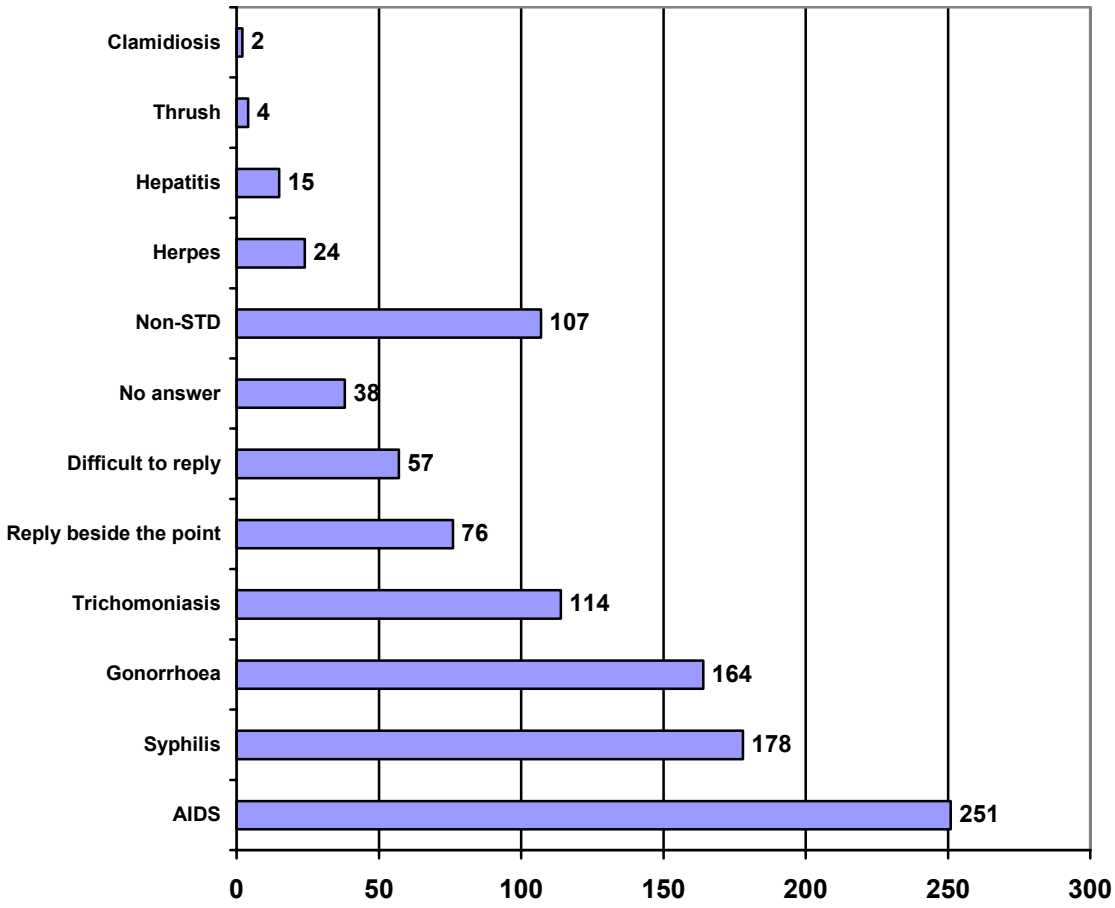
The last question of the questionnaire had a key, that is, answer to the question can be either correct or not correct. According to the key, only 35.9% of pupils responded correctly to the question: "In your opinion, HIV-infected people should be…".
In this case it is more advisable to review the options chosen by pupils.
The survey has shown that 62.0% of pupils have chosen the option – "…immediately quarantined from other people".

Evaluation of the level of pupils' awareness of HIV/AIDS[4].

Pupils of tenth and eleventh classes were offered not only to answer the questions of test questionnaires, but also to fill in the express questionnaire. The main purpose of this questionnaire was to define the level of final class pupils' awareness of HIV/AIDS. The tools provided for 15 questions, replying to which a pupil demonstrated his/her knowledge of basic aspects related to knowledge of HIV/AIDS, STD and channels of their transmission.

The first question in general part of the questionnaire was that of survey participants' awareness of sexually transmitted diseases (STD).
Among STD specified by pupils, HIV/AIDS (251 significant reference), syphilis (178), gonorrhoea (164) and trichomoniasis (114) were cited most often.

General distribution of answers obtained for this question is shown on the histogram below.



The histogram indicates big number of ineffective answers – "difficult to reply" and "no answer". Besides, the "reply beside the point" also can be considered as inefficient one[5].
Noteworthily, a part of diseases cited by pupils as sexually transmitted diseases are not such in fact (for example, cancer, meningitis, etc.).

This question was an open one, that is, no answer options were provided for it. Pupils had to write in the names of STD they knew.

[4] According to results of express-survey
[5] In this case, the respondent's answer cannot be attributed to the question; for example, such as "there are many diseases", etc.

Analysis of different profiles is especially noteworthy for distribution of answers by the town/village profile. The survey has shown that number of resulting answers, i.e. those containing any options of answers irrespective of their correctness, received from pupils of urban schools is three times more than the number of answers about STD obtained from rural school children (333 vs. 100). Moreover, the shares of answers about particular STD among urban pupils essentially exceed the similar indicator of rural pupils. Thus, for example, gonorrhoea was mentioned in answers of 38.7% of urban pupils and 30.2% of rural pupils; syphilis – 42.9% and 30.2%; AIDS – 64.0% and 32.8%; and trichomoniasis – 29.4% and 13.0%, respectively.

The survey has shown that pupils of 11th classes are better informed of STD. That is observed almost for all STD specified in course of the survey. However there is one interesting aspect in distributing answers about AIDS – the share of those who attributed AIDS to STD among tenth-formers makes 65.6%, while among eleventh-formers this figure equals to 47.3%.
It may be supposed that such situation has arisen because of the fact that in their answers 10th class pupils noted AIDS as the only STD they knew, while eleventh class pupils named other STD, just including AIDS.

The survey has shown that 88.0% of pupils know that AIDS is transmitted through blood. Distribution of pupils' answers by different profiles indicates some significant differences existing in the level of awareness of pupils.
Among those, who specified in their answers that AIDS is transmitted through blood, the highest level was observed for pupils of urban schools – 92.5%, while the same of rural school children was 75,0%.
Distribution of pupils' answers by residence regions is given in the table below.

	Tashkent city	**Tashkent Province**	**Syrdarya Province**	**Jizzak Province**
The share of those who believe that AIDS is transmitted through blood, %	**92.5**	**96.2**	**84.0**	**69.6**

As is evident from the table, the lowest value is registered in the Jizzak Province.

Analysis of answer distribution by the class of pupils' studying, 10th or 11th, has demonstrated that 11th class pupils are better informed on the question, than 10th class pupils are (82.1% and 93.2%, correspondingly).

89.1% of pupils are informed that AIDS is transmitted through sexual way, furthermore girls are informed about that somewhat worse than boys are (87.9% and 90.0%).
As is the case with the previous question, urban school children are somewhat better informed than their coevals from villages. Where this indicator among town-dwellers amounts to 92.2%, then that of rural pupils is 80.2%.
Distribution of answers by regions has shown that pupils from the Tashkent Province are best informed on this question (94.2%), and pupils from the Syrdarya Province are informed worst of all – 78.7%.

Almost a half of pupils – survey participants (49.0%) believe that AIDS cannot be transmitted through a kiss. Besides, the share of girls who chose this option of answer (54.2%) is considerably higher than the same of boys (45.2%).
Significant difference is also noted in answers of town-dwellers and rural inhabitants. When the share of urban pupils thinking that AIDS is not transmitted through a kiss counts over a half (52.9%), then the similar indicator in villages equals to 37.9%.

Also, considerable difference in answers to this question was found when distributing them by school classes. The share of 11th class pupils believing that AIDS is not transmitted through a kiss amounts to 59.1%, while among 10th forms it makes 37.7%.

The survey has shown that 40.3% of senior class pupils suppose that AIDS can be transferred from an ill person to a healthy person through insect's sting. Furthermore, rural school children – survey participants holding this opinion number over a half (50.9%), while among urban pupils, who participated in urban schools, this opinion is supported only by 36.6%.

Over a half of survey participants (68.2%) suppose that one can be infected with AIDS if he/she uses blades and other cutting means which have been used previously by AIDS-infected individual.
Number of urban school children holding this opinion is somewhat higher (70.0%), than in villages (62.9%).
Distribution of pupils' answers by residence regions is given in the table below.

	Tashkent city	**Tashkent Province**	**Syrdarya Province**	**Jizzak Province**
Share of those who believe than one should not use cutting things previously used by an AIDS-infected person, %	**62.9**	**80.8**	**66.7**	**56.5**

The survey has shown that majority of pupils (87.5%) are sure that one can be infected with AIDS when using a syringe previously used by AIDS-infected person.
Distribution of answers by the town/village demonstrates that the level of urban pupils' awareness is higher than that of rural pupils. Thus, where the share of those who believe that one can get infected with AIDS using a syringe of AIDS-infected patient among town-dwellers is 91.0%, then the same among village inhabitants is 77.6%.

The majority of survey participants (79.7%) are sure that the risk of being infected with AIDS increases when making sexual contacts with peoples leading irregular sexual life. Distribution of answers by gender belonging (boys/girls) indicates that the share of girls who are sure of increasing risk (81.6%) is higher than the similar indicator of boys (78.4%).
Distribution of pupils' answers by residence regions is given in the table below.

	Tashkent city	**Tashkent Province**	**Syrdarya Province**	**Jizzak Province**
Share of those believing of increased level of AIDS infection risk when making sexual contacts with individuals leading casual sexual life, %	**82.6**	**82.7**	**78.7**	**68.1**

The survey has shown that despite of quite high level of awareness, over a half of pupils (56.3%) would not like to pass AIDS examination.
Furthermore, this distribution of answers remains in all the profiles under review.

CONCLUSION

Basing on the analysis of collected information, the following assumptions can be made:

- *Knowledge of boys, in general, are poorer than that of girls,*
- *The knowledge level of urban pupils, as a rule, exceeds the same of their coevals from rural schools,*
- *For the majority of modules, knowledge of capital pupils is somewhat higher than of their contemporaries in other regions of the country,*
- *The majority of tenth form pupils have a faint idea of what drugs are,*
- *Two thirds of children – survey participants do not have a clear understanding of drugs' impact on human organism,*
- *It can be supposed with certainty that 10^{th} class pupils are not always inclined to take over responsibility for a made decision and demonstrate a disposition towards shifting off the responsibility for their own decisions and actions to others,*
- *The level of pupils' knowledge about reasons, symptoms and impact on human organism of such disease as tuberculosis is quite poor.*
- *Comparative analysis of the structure of questions, which could be successfully answered by pupils, and those, which caused significant difficulties, allows making an assumption that pupils were oriented to logical explanation rather than to concrete knowledge of answers,*
- *Most pupils do not know what the immunity is, what its nature is, etc.*
- *Abrupt variations were observed in the shares of right answers to interrelated questions. High value of correct answers, most probably, is provided not so much by information received during study of a given course, as by background, associated information received by pupils from other subjects or outside their schools.*
- *Presently, the level of pupils' knowledge about diseases*[6] *is low. Most often pupils know only name of a disease and general precautions. More detailed knowledge, such as symptoms, disease development, etc. are not familiar to the absolute majority of pupils.*
- *The level of knowledge of AIDS transmission channels among final class pupils is sufficiently high.*

Proceeding from the above-stated, it is necessary:

- To give particular consideration to improvement of boys' knowledge;
- To pay special attention to improvement of knowledge of rural school children;
- To emphasize improvement of knowledge of pupils in the regions (especially in the Syrdarya Province);
- To strengthen pupils training on the subjects related to drug using, tuberculosis, immunity and impact of diseases on organism.

Most likely, one of the top efficient measures for improving pupils' knowledge would be issue of of a manual/textbook on the topics of the course **"Basics of healthy lifestyle and family".**

[6] HIV/AIDS, tuberculosis, STD, extragenital diseases.

ANNEX

10th class

1. What is adolescent age?

	ANSWER OPTIONS				Total
	This is the period, during which sexual development is being completed – from appearance of secondary sexual characters to beginning of puberty	This is the period, when formation of an adolescent as a personality takes place	This is the age specific for more intelligent approach of an adolescent to phenomena of environment	D.T.R.	
Number of answers	143	42	25	2	212
Share	67.5	19.8	11.8	0.9	100.0

2. What changes occur to an individual at adolescent age?

	ANSWER OPTIONS				Total
	Intensive growth, increased metabolism, abrupt intensification of endocrine glands' functioning	Increase of muscle bulk, general growth of organism	Intensification of cerebrum activity, development of secondary sexual characters	D.T.R.	
Number of answers	125	48	33	6	212
Share	59.0	22.6	15.6	2.8	100.0

3. What does influence formation of sexual characters?

	ANSWER OPTIONS				Total
	Hormones of gonads and other endocrine glands	Awkward age	Hormones of growth	D.T.R.	
Number of answers	109	55	40	8	212
Share	51.4	25.9	18.9	3.8	100.0

4. What do you call the male hormone?

	ANSWER OPTIONS				Total
	Estrogen	Testosterone	Progesterone	D.T.R.	
Number of answers	56	115	24	17	212
Share	26.4	54.2	11.3	8.0	100.0

5. What hormones do exist in female organism?

	ANSWER OPTIONS				Total
	Only female hormones	Both female and male hormones	Estrogen	D.T.R.	
Number of answers	61	80	54	17	212
Share	28.8	37.7	25.5	8.0	100.0

6. Who are characterized by change of voice, development of genitals, and increase of height, weight and muscle bulk at adolescent age?

	ANSWER OPTIONS				Total
	Boys	Girls	Both boys and girls	D.T.R.	
Number of answers	101	13	97	1	212
Share	47.6	6.1	45.8	0.5	100.0

7. When a physiological and psychological formation of a human and formation of reproductive health take place?

	ANSWER OPTIONS				Total
	In childhood	At adolescent age	Between 25 and 30 years	D.T.R.	
Number of answers	20	152	35	5	212
Share	9.4	71.7	16.5	2.4	100.0

8. What are determinants of healthy maternity and paternity?

	ANSWER OPTIONS				Total
	Health at adolescent age	Age of marriage	Efficient nourishment	D.T.R.	
Number of answers	115	75	19	3	212
Share	54.2	35.4	9.0	1.4	100.0

9. What does the health of a child to come depend on?

	ANSWER OPTIONS				Total
	Mother' health	Father's health	Health of both parents	D.T.R.	
Number of answers	22	5	184	1	212
Share	10.4	2.4	86.8	0.5	100.0

10. What are the factors influencing health and development of children and teenagers?

	ANSWER OPTIONS				Total
	Lifestyle, education, nourishment, physical and mental activity, ecology, etc.	Social and political factors	Family and company	D.T.R.	
Number of answers	155	12	40	5	212
Share	73.1	5.7	18.9	2.4	100.0

11. What is the subject matter of hygiene of children and teenagers?

	ANSWER OPTIONS				Total
	Issues of teenagers' education in a family	Hygienic basics of sexual education of children at adolescent age	Hygienic basics of physical education with respect to age, gender and health condition	D.T.R.	
Number of answers	30	97	79	6	212
Share	14.2	45.8	37.3	2.8	100.0

12. What food should be preferred at adolescent age?

	ANSWER OPTIONS				Total
	Vegetable food, rich in vitamins and minerals	Livestock products	Foodstuff rich in proteins	D.T.R.	
Number of answers	132	18	62	0	212
Share	62.3	8.5	29.2	0.0	100.0

13. Is usage of alcohol drinks allowable at adolescent age?

	ANSWER OPTIONS				Total
	Allowable in minor dosage	Not allowable	Using of alcohol drinks does not particular harm to teenagers' health	D.T.R.	
Number of answers	46	149	16	1	212
Share	21.7	70.3	7.5	0.5	100.0

14. In your opinion, are there registered cases of HIV/AIDS in Uzbekistan?

	ANSWER OPTIONS	Total

	Yes	No	D.T.R.	
Number of answers	182	27	3	212
Share	85.8	12.7	1.4	100.0

15. Is AIDS currently curable disease?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	65	144	3	212
Share	30.7	67.9	1.4	100.0

16. What is HIV?

	ANSWER OPTIONS				Total
	This is currently incurable disease accompanied by immunodeficiency	This is a disease acquired through sexual way as well as through blood	Human immunodeficiency virus, AIDS pathogen	D.T.R.	
Number of answers	41	101	55	15	212
Share	19.3	47.6	25.9	7.1	100.0

17. What are drug?

	ANSWER OPTIONS				Total
	Drugs include all agents and preparations, using of which causes dependence	Drugs are the agents causing state of euphoria	Drugs are the agents with exciting or sedative effect	D.T.R.	
Number of answers	85	104	19	4	212
Share	40.1	49.1	9.0	1.9	100.0

18. Does narcotic dependence of children and teenagers develop?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	184	22	6	212
Share	86.8	10.4	2.8	100.0

19. How do drugs influence on human organism?

	ANSWER OPTIONS				Total
	Permanent use of drugs leads to addiction of organism and, in future – unresponsiveness to action of any medicines	All drugs, irrespective of method of administration injure nervous system, cerebrum, immune system , liver, heart, lungs	Using of drugs leads to dilution of brain activity and further degeneration	D.T.R.	
Number of answers	109	66	32	5	212
Share	51.4	31.1	15.1	2.4	100.0

20. Who is responsible for made decision?

	ANSWER OPTIONS				Total
	Those who made the decision	Those who immediately participated in implementation of the decision	Those who provided advice	D.T.R.	
Number of answers	127	33	49	3	212
Share	59.9	15.6	23.1	1.4	100.0

21. In your opinion, what should be the basis of our decisions?

	ANSWER OPTIONS				Total
	Advices of associates	Our life demands, targets and beliefs.	Mood at the time of decision making	D.T.R.	
Number of	50	140	19	3	212

answers					
Share	23.6	66.0	9.0	1.4	100.0

22. What is tuberculosis?

	ANSWER OPTIONS				Total
	Tuberculosis is the chronic infection disease, provoked by microbes, which are called micro-bacteria of tuberculosis.	Tuberculosis is cancer of lungs	Tuberculosis is disease of upper airways due to strong chill	D.T.R.	
Number of answers	96	73	40	3	212
Share	45.3	34.4	18.9	1.4	100.0

23. What organs are affected by tuberculosis?

	ANSWER OPTIONS				Total
	Lungs	Lungs, kidneys, bones, sexual organs, lymph nodes, skin, eyes, etc.	Bronchi, lungs, heart	D.T.R.	
Number of answers	86	64	60	2	212
Share	40.6	30.2	28.3	0.9	100.0

24. What is the main way of tuberculosis control?

	ANSWER OPTIONS				Total
	Early diagnosis of ill people, provision of surroundings safety and efficient treatment	Isolation of ill people from surroundings, prohibition of commu-nication	Injections	D.T.R.	
Number of answers	107	35	68	2	212
Share	50.5	16.5	32.1	0.9	100.0

25. Is tuberculosis curable disease?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	139	70	3	212
Share	65.6	33.0	1.4	100.0

26. What are the main symptoms of tuberculosis disease?

	ANSWER OPTIONS				Total
	Limosis, excessive weight, rapid fatigabil-ity, sleepiness, cough, dry mouth, palpitation.	Tired appearance, lack of appetite, increased temperature, cough, sneezing, giddiness	Causeless cough, hemoptysis, emacia-tion, fatigability, weak-ness, decrease of appe-tite, increase of tem-perature, pain in thorax.	D.T.R.	
Number of answers	37	54	111	10	212
Share	17.5	25.5	52.4	4.7	100.0

27. What are the ways of getting infected with tuberculosis?

	ANSWER OPTIONS				Total
	Through crockery, spoons, cups, tooth-brush and other thing of personal usage	Through sexual way	Through blood as well as through used and infected needles for injections	D.T.R.	
Number of answers	131	28	49	4	212
Share	61.8	13.2	23.1	1.9	100.0

11th class

In your opinion, what does the notion "reproductive health" include?

	ANSWER OPTIONS				Total
	It includes general health of organism, psychological health, awareness of contraception and STD	Protection against undesirable pregnancy and sexually transmitted diseases	Psychological and mental health	D.T.R.	
Number of answers	105	72	40	20	237
Share	44.3	30.4	16.9	8.4	100.0

2. What does influence on forming of sexual characters?

	ANSWER OPTIONS				Total
	Sex hormones and endocrine glands	Awkward age	Growth hormones	D.T.R.	
Number of answers	136	83	12	6	237
Share	57.4	35.0	5.1	2.5	100.0

3. What do you call the male hormones?

	ANSWER OPTIONS				Total
	Estrogen	Testosterone	Progesterone	D.T.R.	
Number of answers	62	138	18	19	237
Share	26.2	58.2	7.6	8.0	100.0

4. Who are characterized by change of voice, development of genitals, and increase of height, weight and muscle bulk at adolescent age?

	ANSWER OPTIONS			Total
	Boys	Girls	Both boys and girls	
Number of answers	123	16	98	237
Share	51.9	6.8	41.4	100.0

5. The right of each citizen for protection of his/her health is stipulated by:

	ANSWER OPTIONS				Total
	Constitution of RUz	Labor Code	International Treaty on Health	D.T.R.	
Number of answers	108	22	105	2	237
Share	45.6	9.3	44.3	0.8	100.0

6. What laws have been adopted in our country for health protection?

	ANSWER OPTIONS				Total
	The Law of RUz "On protection of health of Uzbekistan citizens". Protection of maternity and childhood is concern of the government about development and improvement of healthy generation; Article of the Constitution on protection of maternity and childhood; a number of resolutions	The Law of RUz "On protection of growing generation"	Article of the Constitution", the Law of RUz "On additional measures for development of public health protection"	D.T.R.	
Number of answers	165	46	20	6	237
Share	69.6	19.4	8.4	2.5	100.0

7. What the occurrence of girl's menstruation signs?

	ANSWER OPTIONS				Total
	Readiness of a girl to give birth to a sound, healthy child	Declination in development and need for visiting a physician	Pubescence	D.T.R.	
Number of answers	48	18	167	4	237
Share	20.3	7.6	70.5	1.7	100.0

8. In your opinion, what minimum inter-birth interval is considered as acceptable?

	ANSWER OPTIONS				Total
	1 year	2 years	3 years	D.T.R.	
Number of answers	70	55	111	1	237
Share	29.5	23.2	46.8	0.4	100.0

9. In your opinion, what are consequences of closely-related marriages?

	ANSWER OPTIONS				Total
	Children are born more weak, they lag in development from their coevals, their mortality is higher, and congenital malformations occur oftener than with children born in common marriages.	Children are born stronger physically, they seldom fall sick and oftener outpace their contemporaries in development	Usually such children die before old age	D.T.R.	
Number of answers	205	21	8	3	237
Share	86.5	8.9	3.4	1.3	100.0

10. What is immunity?

	ANSWER OPTIONS				Total
	A mean of organism protection against living beings and things carrying signs of genetic foreignness (bacteria, viruses, albumens, cells, tissues)	Natural reaction of an organism for rejection of foreign substances	Reaction of an organism to exogenous irritants (sneezing, cough, etc.)	D.T.R.	
Number of answers	93	113	25	6	237
Share	39.2	47.7	10.5	2.5	100.0

11. What determines the immunity?

	ANSWER OPTIONS				Total
	Viruses	Antibodies	Bacteria	D.T.R.	
Number of answers	96	93	42	6	237
Share	40.5	39.2	17.7	2.5	100.0

12. How the acquired immunity develops?

	ANSWER OPTIONS				Total
	As a result of previous disease or appropriate injection	As a result of mother's old diseases	It is transmitted genetically, where at least one of parents has had this disease	D.T.R.	
Number of answers	102	22	105	8	237
Share	43.0	9.3	44.3	3.4	100.0

13. In your opinion, what are the diseases, against which children's immunity develops, who receive prophylactic injections since their birth?

	ANSWER OPTIONS	Total

	Virus B hepatitis, poliomyelitis, diphtheria, tetanus, measles, pertussis, tuberculosis	Poliomyelitis, measles, diphtheria and AIDS	Tetanus, pertussis, tuberculosis, virus B hepatitis.	D.T.R.	
Number of answers	160	48	23	6	237
Share	67.5	20.3	9.7	2.5	100.0

14. What can cause immunodeficiency?

	ANSWER OPTIONS				Total
	Failure of protective mechanisms of organism	Failure of protective mechanisms of organism or HIV	AIDS	D.T.R.	
Number of answers	87	65	79	6	237
Share	36.7	27.4	33.3	2.5	100.0

15. In your opinion, what does the modern contraception include?

	ANSWER OPTIONS				Total
	Hormonal agents, breast-feeding, spermicides, intrauterine devices, preservatives, surgical methods	Hormonal agents, intrauterine devices, preservatives	Preservatives, pills, hormonal agents, abortion	D.T.R.	
Number of answers	43	116	64	14	237
Share	18.1	48.9	27.0	5.9	100.0

16. In your opinion, what is the most reliable protection against AIDS and STD?

	ANSWER OPTIONS				Total
	Preservative	Pills	Interrupted coitus	D.T.R.	
Number of answers	199	21	12	5	237
Share	84.0	8.9	5.1	2.1	100.0

17. Can a woman conceive after first coitus?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	182	51	4	237
Share	76.8	21.5	1.7	100.0

18. Can a child be infected with AIDS when being breast-fed by a HIV-positive mother?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	181	49	7	237
Share	76.4	20.7	3.0	100.0

19. Is it possible to be infected with HIV and AIDS through syringes, which were used for injections or blood transfusion?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	216	15	6	237
Share	91.1	6.3	2.5	100.0

20. What does the term "extragenital diseases" include?

	ANSWER OPTIONS				Total
	All chronic diseases outside genitals – anemia, diseases of cardiovascular system, kidneys, lungs, liver, gastrointestinal tract and nervous system, as well as diseases of endocrine system	Diseases of genitals	Sexually transmitted diseases	D.T.R.	
Number of answers	75	90	49	23	237
Share	31.6	38.0	20.7	9.7	100.0

21. In your opinion, what is the main reason of anemia?

	ANSWER OPTIONS				Total
	Low content of calcium in foodstuff	Insufficient delivery of iron to organism or its loss	Lack of A, B6 and B12 vitamins in teenager's organism	D.T.R.	
Number of answers	53	83	95	6	237
Share	22.4	35.0	40.1	2.5	100.0

22. in your opinion, what are the main symptoms of pancreatic diabetes?

	ANSWER OPTIONS				Total
	Rapid fatigability, limosis, skin itch, frequent urination, loss of weight, sexual weakness	Excessive weight, sleepiness, rapid fatigability, limosis.	Frequent giddiness, lack of appetite, insomnia	D.T.R.	
Number of answers	98	75	57	7	237
Share	41.4	31.6	24.1	3.0	100.0

23. In your opinion, what can be the consequences of deteriorated functioning of thyroid gland?

	ANSWER OPTIONS				Total
	Rapid fatigability, limosis, loss of weight	Weakness, apathy, excessive weight, xerosis and mental deficiency	Excessive weight, sleepiness, rapid fatigability, limosis	D.T.R.	
Number of answers	79	102	42	14	237
Share	33.3	43.0	17.7	5.9	100.0

24. What is pregnancy?

	ANSWER OPTIONS			Total
	This is a physiological process, during which a fetus develops from fertilized ovum in female organism	This is the process of child-bearing and delivery	D.T.R.	
Number of answers	130	105	2	237
Share	54.9	44.3	0.8	100.0

25. In your opinion, what is the normal duration of pregnancy?

	ANSWER OPTIONS				Total
	40 weeks	50 weeks	30 weeks	D.T.R.	
Number of answers	167	27	39	4	237
Share	70.5	11.4	16.5	1.7	100.0

26. In your opinion, what are the factors causing abnormalities in normal course of pregnancy?

	ANSWER OPTIONS	Total

	Anemia, extragenital diseases, STD, HIV, smoking	Unplanned pregnancy, adolescent pregnancy, somatic diseases, bacterial infections, smoking, alcoholism, drug addiction, STD, frequent deliveries	Early or late pregnancy, smoking, alcoholism, drug addiction	D.T.R.	
Number of answers	117	56	51	13	237
Share	49.4	23.6	21.5	5.5	100.0

27. what is ideal food for an infant

	ANSWER OPTIONS			Total
	Human milk	Goat's milk	Infant nourishing mixtures	
Number of answers	225	9	3	237
Share	94.9	3.8	1.3	100.0

28. What are the consequences of breast-breeding for a mother?

	ANSWER OPTIONS				Total
	Gain in weight, increased risk of infertility	Quick ageing of organism, loss of weight, anorexia and insomnia	Prolonged period of postnatal infertility, reduced risk of breast cancer and ovarian carcinoma, accelerated involution of uterus and reduced risk of bleeding	D.T.R.	
Number of answers	79	53	88	17	237
Share	33.3	22.4	37.1	7.2	100.0

29. What is HIV-infection?

	ANSWER OPTIONS				Total
	This is currently incurable disease accompanied by immunodeficiency	This is the disease being acquired through sexual way and through blood	This is a stage of disease, when the virus is inside of organism, though without external appearances. However immune system reacts to the penetrated virus	D.T.R.	
Number of answers	61	82	87	7	237
Share	25.7	34.6	36.7	3.0	100.0

30. What is the period, during which a HIV-infected individual can feel himself/herself absolutely healthy, though the virus can be transmitted to other people?

	ANSWER OPTIONS				Total
	10-20 years	Up to 2 years	Up to 8-10 years	D.T.R.	
Number of answers	36	130	62	9	237
Share	15.2	54.9	26.2	3.8	100.0

31. Can a man get infected with AIDS from an AIDS-infected man sitting beside him?

	ANSWER OPTIONS				Total
	Yes	No	Yes, if the infected sneezes or coughs	D.T.R.	
Number of answers	34	149	51	3	237
Share	14.3	62.9	21.5	1.3	100.0

32. In your opinion, HIV-infected people should be…

	ANSWER OPTIONS	Total

	Immediately quarantined from other people	Treated as any other individual in a society, which has the right for same respective and worthy attitude	D.T.R.	
Number of answers	147	85	5	237
Share	62.0	35.9	2.1	100.0

Express survey

1. Is AIDS transmitted through blood?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	395	31	23	449
Share	88.0	6.9	5.1	100.0

2. Is AIDS transmitted through sexual way?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	400	18	31	449
Share	89.1	4.0	6.9	100.0

3. Is AIDS transmitted through kisses?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	175	220	54	449
Share	39.0	49.0	12.0	100.0

4. Is it true that virus can be transferred from AIDS-infected person to healthy individual through insects?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	181	156	112	449
Share	40.3	34.7	24.9	100.0

5. In your opinion, can AIDS be transmitted from an ill man if he comes into sexual contact with another man?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	207	111	131	449
Share	46.1	24.7	29.2	100.0

6. Can one get infected with AIDS if he/she uses blades or other cutting things previously used by an AIDS-infected individual?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	306	75	68	449
Share	68.2	16.7	15.1	100.0

7. In your opinion, is it possible to be infected with AIDS through using syringes previously used by an AIDS-infected individual?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	393	29	27	449
Share	87.5	6.5	6.0	100.0

8. Does the risk of AIDS infection increase when making sexual contacts with people leading casual sexual life?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	358	42	49	449
Share	79.7	9.4	10.9	100.0

9. Does the risk of AIDS infection increase for people, who have fallen sick of venereal diseases: gonorrhea, syphilis, trichomoniasis?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	259	73	117	449
Share	57.7	16.3	26.1	100.0

10. In your opinion, is it necessary to have sexual relations before marriage?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	152	244	53	449
Share	33.9	54.3	11.8	100.0

11. Would you like to pass AIDS examination yourself?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	147	253	49	449
Share	32.7	56.3	10.9	100.0

12. Do you know where one can pass AIDS examination anonymously?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	105	298	46	449
Share	23.4	66.4	10.2	100.0

13. In your opinion, is it necessary to tell to your coevals about sexual life or not?

	ANSWER OPTIONS			Total
	Yes	No	D.T.R.	
Number of answers	259	124	66	449
Share	57.7	27.6	14.7	100.0