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1. **EXECUTIVE SUMMARY**

The objective of this project is to disseminate, raise awareness and sensitize Ecuadorian society with respect to Turner Syndrome. This syndrome occurs only in women; approximately 1 in 2000 girls born alive has it. It is a genetic disorder produced by the lack of all or part of one of the sex chromosomes X, which makes  girls have a short stature, heart problems, kidney problems, infertility , and without proper care can eventually be complicated with hypertension, hypothyroidism, osteoporosis, etc. If these girls and women receive the appropriate treatment, they can lead a full life, but currently people are not informed and practically do not know about it. This fact prevents early detection and timely treatment, causing serious complications in their adulthood.

The Ecuadorian Foundation for Turner Syndrome Aid aims to improve the life quality of Turner women in Ecuador. Through this project, it is expected to carry out a nationwide campaign that benefits these girls and women. At the same time, the campaign is going to help to collect the information necessary for the Government to provide them with the integral medical care they need.

Five provinces of the country have been selected: Guayas, Manabí, Pichincha, Loja, and Santo Domingo de los Tsachilas, considering that at present the largest number of female population in the country are concentrated there. It is proposed to hold community talks, deliver information leaflets and posters. in addition, a dissemination campaign in the media  to inform society and be able to bring together this vulnerable sector of the population.

These talks will be given by the members of the foundation, who have the syndrome. They have the basic knowledge necessary to inform and guide the community. Topics will be addressed such as: What is Turner Syndrome? What are its characteristics? How is its diagnosis made? What is the appropriate treatment? What are the possible complications?, and how important is the treatment?.

The estimated cost for the implementation of this project is $ 12,500 (twelve thousand five hundred dollars) , which will be invested in advertising material, purchase of equipment, mobilization of people will talk, etc. It should be considered that the investment in this project will be rewarded in every smile of a Turner girl or woman in our country.

1. **PROJECT'S NAME:**

***Dissemination, awareness and sensitization about Turner syndrome in Ecuador.***

1. **BACKGROUND**

A syndrome is a set of signs that affect several organs, with more or less relationship between them. This relationship allows a grouping between them, to give a diagnosis. Diagnosis is very useful because it allows us to look for hidden anomalies, predict future problems and, if possible, initiate therapeutic measures. Not all the signs have to be present together in the same person. On the other hand, normal people can have some of these signs.

Turner syndrome was first described by Dr. Henry Turner in the 1930s. TS, as it is known, affects 1 in every 2.000 female human beings. It is caused by the loss or abnormality of an X chromosome, or part of it, in some or all of the cells of the body. Although very rare, TS is the condition that most commonly affects female sex chromosomes.

The concept and definition of Turner syndrome implies two things: first one having some clinical alteration compatible and related to the clinical entity and second one, a complete or partial loss of material of one of the X chromosomes. All human beings have 46 chromosomes in almost all cells, excluding reproductive cells, eggs in females. sperm in males. Chromosomes, which are small rods where all the genetic information is stored, contain information about how we look (size, skin color, eye color, weight, face shape, etc.), and even about the proneness to certain diseases. Of these chromosomes, two of them are called sexual: X and Y. Women have two X chromosomes (one comes from the father and the other from the mother). Men have an X chromosome (from the mother) and Y one (from their father). In the early stages of cell division an embryo is formed, and a distorted division causes part or all of the X chromosome to be lost. If the pregnancy continues, the girl will have Turner. This cannot happen in boys, since they only have one X chromosome and if it is missing, they could not live. So far, it is unknown what circumstances influence this abnormal division to occur.

Each girl with Turner is unique and may not look like others; although these characteristics are shared with several disorders, and they must be treated on an individual basis.

The age of diagnosis is highly variable, but it is still often late and it is our duty to continue with the training of all health workers to lower the age of diagnosis, thereby improving the effect of available treatments.

The clinical signs depend on the intensity of the genetic alteration, and they are more evident in girls with a 45X karyotype , often even at birth. But it's not always like this. These are the key signs that Turner Syndrome presents depending on each age.

**Newborn**

Patients are slightly smaller, both lighter and shorter. They usually have edema (swelling) on ​​the back of the feet and hands that normally improve over the years and are not related to heart or kidney disease, but rather to an insufficient development of the lymphatic system (of genetic origin). There may be a short neck with folds that join it to the shoulders (pterygium colli) and that comes from an edema of this area during the fetal period, called cystic hygroma and that can be detected on ultrasound during pregnancy. For this reason, the ears are below the line that follows the outer corner of the eyes and there is a lower hairline at the back area of ​​the neck. The thorax has a broad (shield) appearance, with the mammary areolas and nipples that are further apart than normal. The chin is small, called micrognatia. Cardiac malformations are common at this age, especially aortic coarctation.

**From infant to 3 years**

At this age, the typical appearance of the Turner patient is already noticeable, with a wide trunk, an athletic strong appearance, and separated nipples, called hypertelorism.  On the face the eyes look large, there is a lower implantation of ears, the upper lip is thin with the nasogenian sulci (corners of the mouth) that can be straight or oriented backwards. The palate is arched (ogival), the chin is small and positioned backwards. Recurrent otitis is frequent.

**From 5 to 7 years**

The athletic, strong and wide appearance continues to increase. Freckles and moles begin to appear on the trunk. The forearm is slightly out from the elbow (ulna/cubitus valgus). The growth problem with slight shortening of the legs in relation to the trunk is already evident.

**From 8 to 10 years**

All the above signs are more marked and especially the height has deviated slightly from that of girls of their age. There is an increase of the number of freckles and moles.

By the end of this age, puberty was supposed to begin, with the outbreak of the breast bud, initially on one side only and later on both. In most Turner girls this does not occur, but the appearance of pubic hair and the change in the smell of sweat (apocrine) can be observed. These latter signs come from the production of androgens by the adrenal gland (which is not affected).

**From 12 to 14 years old**

At this age, all the signs are usually very clear: growth is severely affected, the signs of puberty have not appeared (there is no breast bud or, of course, first mense/menarche) and the appearance described above is more striking. A fifth of the girls present a mammary bud, although in general its development is not usually completed (infantile breast); however, pubic hair is normal in size and extent.

All these series of physical signs do not necessarily appear together and sometimes they do not appear at all. Some of these signs can also appear in girls without Turner syndrome, and all of them together serve to increase the suspicion of Turner and confirm it by carrying out a genetic study (karyotype). A karyotype is a test that allows you to see the chromosomes in cells. Generally, it can be done with a simple blood test and allows us to ensure Turner's diagnosis, in addition to being essential for it.

An early diagnosis is necessary to provide enough information to the family, especially the parents, so that they accept diagnosis more easily. As it is common for girls to have difficulty gaining weight and numerous health problems, diagnosis produces a certain tranquility, since it clarifies and focuses on a single point all those symptoms that the girl has been dragging on and also it makes it possible to start the solutions in the shortest span.

Another reason that requires an early diagnosis is to detect other affectations that cause the following problems:

* Sexual maturity is not reached
* Absence of menstruation and poorly developed ovaries
* Joint and bone problems
* Thyroid problems
* Abnormal swelling of the hands and / or feet
* Renal problems
* Heart problems
* Frequent ear infections
* Infertility
* High arched palate

It is very important to make the diagnosis before puberty, which means, before the age of 12 or 13. If it is delayed further, beyond that age, will force late start treatment with female hormones (when appropriate), and this on its time can cause both physical and psychological problems,

In addition to genetic studies, mainly karyotype and other tests aimed at ruling out the involvement of other organs, it is common to perform a wrist X-ray, called bone age, which serves to see the delayed maturation of the bones, characteristic sign of Turner, such as the short fourth metacarpal (ring finger), decreased carpal angle and watch for signs of a lack of calcium (osteoporosis).

**Treatment of growth retardation**

The treatment of short stature is considered of great importance since it affects other fundamental aspects such as the optimization of pubertal induction, self-esteem, social relationships, and school performance.

The effect of growth hormone treatment is known to be better the sooner you start. Normally, it begins around the age of 7, which is when the patient can notice a stature separation from peers of their age. It is also important that treatment with this hormone is maintained for about three years before the onset of puberty (either it is spontaneous or induced).

**Treatment of hypogonadism**

Ovarian failure occurs in the majority of patients and only 2-5% will have spontaneous menstruation, the objectives of estrogen treatment are the development of secondary sexual characteristics to match the age of onset of puberty to that of women with syndrome Turner . It allows the acquisition of adequate bone mass and improves their social relations skills.

**Psychological Support**

There are some common personality traits in women with TS, such as a lower emotional threshold, greater tolerance for adversity, a relative lack of energy, and greater conformism. In general, they are emotionally immature, with difficulties in establishing new social relationships, shyness, and negative body image, all of which are more marked in adolescence. Psychological states such as depression, anxiety, and anorexia nervosa are more frequent than in the general population. Some patients have disorders in the processing of non-verbal information (difficulties in mathematics) and visual-spatial (difficulties when driving) as well as in the coordination of visual and motor perceptual activities with some degree of hyperactivity and motor problems.

1. **PROJECT FOUNDATION**

In Ecuadorian society, Turner Syndrome is very little known and the general population does not know of its existence. The Ecuadorian Foundation for Turner Syndrome, which was created in 2001, (FEPAST for short, Fundación ecuatoriana para apoyo al syndrome de Turner) has managed to contact and meet 150 girls and women who live with this syndrome, and most of them were detected in adolescence. So, they did not have the opportunity to receive a adequate treatment with growth hormone, which must be administered in childhood.

At present, the cost of growth hormone is approximately 120 dollars per vial. Its cost avoids that girls have access to the hormone, despite having a diagnosis and information about what treatment to apply.

Girls who live with this condition often attract attention due to their physical characteristics, which is why they are victims of discrimination, rejection, and isolation, starting from their families to their teachers, classmates, etc.

In the adult stage, Turner women find problems to be included in the workforce. It makes difficult for them to have independence, and professional and social development.

1. **STATISTICAL DATA IN ECUADOR**

In Ecuador there are no data or statistics reporting cases of Turner Syndrome, so data from the last population census conducted in 2010 by INEC have been taken. According to the census, in our country 7,395,691 women exist and if we consider that out of every 2000 women born alive, one is born with the syndrome , we will have approximately 3,698 women in the country suffering from it . There is a table below in which the number of Turner cases that would exist by province has been approximately calculated, to detect where the cases have greater concentration, and focus on those sectors.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Probability of Turner Syndrome cases by province** | | | | |
| **Province** | **Total** | **Women** | **Mens** | **Turner syndrome** |
| **TOTAL** | **14,483,499** | **7,395,691** | **7,188,599** | **3,698** |
| Guayas | 3,645,483 | 1,829,569 | 1,815,914 | 915 |
| Pichincha | 2,576,287 | 1,320,576 | 1,255,711 | 660 |
| Manabi | 1,369,780 | 680,481 | 689,299 | 340 |
| Los Rios | 778,115 | 380,016 | 398,099 | estuary 190 |
| Azuay | 712,127 | 375,083 | 337,044 | 188 |
| El Oro | 600,659 | 296,297 | 304,362 | 148 |
| Esmeraldas | 534,092 | 262,780 | 271,312 | 131 |
| Tungurahua | 504,583 | 259,800 | 244,783 | 130 |
| Chimborazo | 458,581 | 239,180 | 219,401 | 120 |
| Loja | 448,966 | 228,172 | 220,794 | 114 |
| Cotopaxi | 409,205 | 210,580 | 198,625 | 105 |
| Imbabura | 398,244 | 204,580 | 204,580 | 102 |
| Bolivar | 183,641 | 183,641 | 89,875 | 92 |
| Santo Domingo de los Tsachilas | 368,013 | 184,955 | 183,058 | 92 |
| Sta. Helena | 308,693 | 151,831 | 156,862 | 76 |
| Canar | 225,184 | 119,949 | 105,235 | 60 |
| Carchi | 164,524 | 83,369 | 81,155 | 42 |
| Sucumbíos | 176,472 | 83,624 | 92,848 | 42 |
| Morona Santiago | 147,940 | 73,091 | 74,849 | 37 |
| Orellana | 136,396 | 64,266 | 72,130 | 32 |
| Napo | 103,697 | 50,923 | 52,774 | 25 |
| Zamora Chinchipe | 91,376 | 43,924 | 47,452 | 22 |
| Pastaza | 83,933 | 41,673 | 42,260 | twenty-one |
| Non-delimited areas | 32,384 | 15,228 | 17,156 | 8 |
| Galapagos | 25,124 | 12,103 | 13,021 | 6 |
|  |  |  |  | 3,698 |

Therefore, it is vitally important that society knows the existence of Turner Syndrome, and how to be able to support, give worth and include these valuable women, who have a lot to contribute to the growth of the country by carrying out a national information and awareness campaign to close to this syndrome.

1. **OVERALL OBJECTIVE**

Disseminate, raise awareness and sensitize the Ecuadorian society of the existence of Turner Syndrome, so that women living with this condition have a better quality life, through talks to the community, delivery of leaflets,

posters and advertising in communication media.

1. **SPECIFIC OBJECTIVES**

- Disseminate the existence of Turner Syndrome and the Ecuadorian Foundation for Turner Syndrome.

- Raise awareness about the importance of an early diagnosis of Turner Syndrome.

- Inform about the treatment and the importance of applying it to Turner patients.

- Sensitize teachers, students, family members, and all the society, so that they treat Turner women without discrimination and they can feel supported.

- Facilitate the integration into society of women with Turner Syndrome.

- Highlight the talents and abilities of Turner women.

- Grouping the largest possible amount of Ecuadorian Turner women into the Foundation to provide support, share experiences, and seek solutions to their common problems.

- Consolidate a registry of real cases of Turner Syndrome in Ecuador.

1. **BENEFICIARIES**

Turner girls and women, who have not yet been diagnosed due to lack of knowledge of the existence of this syndrome.

Turner girls and women, and their families, who seek information, psychological support and a place for amusement that allows them to share with other people with the same condition.

The Government, and the Ministry of Health, which by having these women and girls grouped together, will have information that will allow them to reach them more easily, to provide them with the necessary treatment, psychological support, and carry out scientific studies to improve existing treatments.

Teachers who by having information about the syndrome and its effects will be able to support these girls and women for their better school performance and avoid discrimination among their peers.

1. **LOCATION**

According to statistics and censuses, the greater concentration of patients with Turner Syndrome is in the provinces of Guayas, Pichincha and Manabi. In addition, it has been considered taking into account within the project,  Loja and Santo Domingo de los Tsachilas  provinces, due to geographical reasons and availability of human resources .

1. **SECTORIZATION**

To select the cantons in which the talks will be given, only the amount of the existing female population has been considered, according to the last population census carried out by the INEC

**Cantons of the Province of Pichincha**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **Canton** | **Women** | | Quito | 1,150,380 | | Rumiñahui | 43,935 | | Cayambe | 43,828 | | Mejia | 41,552 | | Pedro Moncayo | 16,861 | | Puerto Quito | 9,671 | | San Miguel de los Bancos | 8,160 | | Pedro Vicente Maldonado | 6,189 | |  |

**Cantons of the Province of Guayas and their female population**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  | | --- | --- | | **Canton** | **Women** | | Guayaquil | 1,192,694 | | Duran | 119,368 | | Milagro | 83,393 | | Daule | 60,131 | | Empalme | 36,427 | | San Borondón | 34,088 | | Naranjal | 32,387 | | Yaguachi | 29,694 | | Urbina Jado | 27,574 | | Balzar | 25,936 | | El Triunfo | 21,954 | | Pedro Carbo | 20,828 | | Playas | 20,693 | | St. Lucia | 18,647 | | Naranjito | 18,123 | | Simon Bolivar | 12,213 | | Alfredo Baquerizo moreno | 12,166 | | Colimes | 11,000 | | Nobol | 9,744 | | Balao | 9,525 | | Lomas de sargentillo | 8,947 | | Palestine | 7,711 | | Coronel Marcelino Maridueña | 5,768 | | Isidro Ayora | 5,285 | | General Antonio Elizalde | 5,273 | |  |

**Cantons of Manabí Province**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  | | --- | --- | | **Canton** | **Women** | | Portoviejo | 142,060 | | Manta | 115,074 | | Chone | 63,208 | | Carmen | 43,504 | | Cojimies | 35,012 | | Montecristi | 34,990 | | Manabi | 28,217 | | Pedernales | 26,708 | | Santa Ana | 23,292 | | Bolivar | 19,921 | | Tosahua | 18,814 | | Paján | 17,544 | | Rocafuerte | 16,547 | | Pichincha | 14,571 | | 24 de Mayo | 13,945 | | Flavio alfaro | 12,095 | | Jama | 11,403 | | San Vicente | 10,761 | | Puerto Lopez | 9,887 | | Junin | 9,192 | | Jaramijó | 8,975 | | Olmedo | 4,761 | |  |

**Cantons of Loja Province**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  | | --- | --- | | **Canton** | **Women** | | Loja | 111,385 | | Saraguro | 16,060 | | Catamayo | 15,412 | | Calvas | 14,235 | | Paltas | 11,920 | | Macara | 9,369 | | Puyango | 7,627 | | Espíndola | 7,201 | | Celica | 6,962 | | Gonzanama | 6,326 | | Zapotillo | 5,871 | | Pindal | 4,143 | | Sozoranga | 3,670 | | Charguarpamba | 3,427 | | Olmedo | 2,448 | | Quilanga | 2,116 | |  |

1. **CONFORMATION OF TRAINING GROUPS**

The groups of trainers will be made up of members of the Foundation, prepared to talk about the Syndrome in a general way, explain the characteristics, the treatment, the complications that appear. In addition, they will also know how to guide and clarify the doubts of the girls, parents and teachers. In this way, the following groups have been formed:

**Group 1**

Accountant Tatiana Pogo

Engineer/Computer Lilian Alcívar

Designer Martha Cortéz

**Group 2**

Psicotherapist Marcela Herrera

Linguist Sandy Benitez

**Group number 3**

Engineer/Computer Lilian Alcivar

Linguist Sandy Benitez

**Group 4**

Dr. Bernarda Estevez

Lawyer Daniela Díaz

**Team 5**

Dr. Bernarda Estevez

Social Worker Andrea Álava

**Group 6**

Accountant Tatiana Pogo

Psicologist, Angélica Samaniego

1. **PLANNING AND COSTS**

**Acquisition of necessary equipment and materials**

Informative and posters leaflets will be required to be distributed in health centers, hospitals, schools, colleges, and universities in each province. Also, it is necessary to have a laptop and a projector, but at present the Foundation has not this equipment. It is also important to provide material to the attendees, so it is planned to put together a kit that will contain a folder, a pen and sheets. In addition, the creation of a web page will be of great help to spread the existence of Turner Syndrome and the Foundation nationally and worldwide.

|  |  |
| --- | --- |
| **MATERIAL RESOURCES** | **COST** |
| 2 000 informative and promotional leaflets | 200 |
| 1 laptop  TOSHIBA L745-SP4146CL I3-2430, 3GB, 500GB, 14 ", DW, WHB | 800 |
| 1 projector  EPSON POWER LITE S12 PROJECTOR | 200 |
| 1000 participant kits | 1500 |
| Office supplies | 100 |
| Bonus to working groups 1-6 | 1600 |
| **TOTAL** | **2800** |

The cost calculation for the transfer and accommodation of the trainers to each canton has been carried out.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Province** | **Canton** | **Planning** | **Institution** | **Responsable** | **Travel expenses** | **Lodging** | **Mobilization** | **Total** |
| Guayas | Guayaquil | **Day 1**  Mobilization Quito Airport Arrival to Guayaquil by plane Mobilization to the hotel Mobilization to the Institution for the talk.  Guayaquil accommodation | Holy Spirit University (North) | Group 1 | 90 | 100 | 410 | 600 |
| Guayas | Guayaquil | **Day 2**  Mobilization for two talks Hospedaje Guayaquil | Catholic University of Guayaquil (Center) Salesian Polytechnic University (South) | Group 1 | 90 | 100 | fifty | 240 |
| Guayas | Duran | **Day 3**  Guayaquil-Duran-Guayaquil mobilization Accommodation in Guayaquil | Durán Mixed Fiscal College | Group 1 | 90 | 100 | 60 | 250 |
| Guayas | Daule | **Day 4**  Mobilization Guayaquil- Daule -Guayaquil lodging Guayaquil | Olmedo Private Technical College | Group 1 | 90 | 100 | 60 | 250 |
| Guayas | Miracle | Day 5 Mobilization Guayaquil- Milagro-Guayaquil Hospedaje Guayaquil | State university of Milagro | Group 1 | 90 | 100 | 60 | 250 |
| Guayas | Guayaquil | **Day 6** Return Guayaquil - Quito Mobilization Quito Airport |  | Group 1 | 60 | 0 | twenty | 80 |
| Pichincha | Quito | **Day 1**  Mobilization to the Institution | University of the Americas (north) | Group 2 | 60 | 0 | twenty | 80 |
| Pichincha | Quito | **Day 2** Mobilization to the Institution | Pontifical Catholic University of Ecuador (center) | Group 2 | 60 | 0 | twenty | 80 |
| Pichincha | Quito | **Day 3**  Mobilization to the Institution | Salesian Polytechnic University (south) | Group number 3 | 60 | 0 | twenty | 80 |
| Pichincha | Quito | **Day 4**  mobilization to the Institution | San Francisco de Quito University (Tumbaco Valley) | Group 4 | 60 | 0 | 40 | 100 |
| Pichincha | Cayambe | **Day 5**  Mobilization to the Institution | Cayambe Technical College | Group 2 | 60 | 0 | 40 | 100 |
| Pichincha | Rumiñahui | **Day 6**  Mobilization to the Institution | Polytechnic School of the army | Group number 3 | 60 | 0 | 40 | 100 |
| Pichincha | Mejia | **Day 7**  Mobilization to the Institution | Itsa itsa.edu.ec 2309287 2309380 | Group 4 | 60 | 0 | 40 | 100 |
| Manabi | Blanket | **Day 1**  Quito airport mobilization  Arrival to Manta by plane  Mobilization to the hotel  Mobilization to the Institution for the talk Hospedaje Manta | Lay Eloy Alfaro | Group number 3 | 90 | 60 | 240 | 390 |
| Manabi | Portoviejo | **Day 2**  Manta-Portoviejo mobilization  Portoviejo accommodation  Mobilization to talk at the Institution | Technical University of Portoviejo (north) | Team 5 | 90 | 90 | fifty | 230 |
| Manabi | Portoviejo | **Day 3**  Mobilization for two talks  Portoviejo accommodation | Portoviejo College (center) San Gregorio University (south) | Team 5 | 90 | 90 | twenty | 200 |
| Manabi | Chone | **Day 4**  Portoviejo - Chone mobilization  Mobilization to the Institution  Chone Lodging | Eloy Alfaro Lay University | Team 5 | 90 | 90 | fifty | 230 |
| Manabi | Carmen | **Day 5**  Mobilization Chone - El Carmen  Mobilization to the Institution  Lodging El Carmen | Eloy Alfaro Lay University | Team 5 | 90 | 90 | fifty | 230 |
| Manabi | Carmen | **Day 6**  Mobilization El Carmen - Quito |  | Team 5 | 90 | 0 | 40 | 130 |
| Loja | Loja | **Day 1**  Mobilization Quito - Airport  Arrival to Loja by plane  Mobilization to the hotel |  | Group 6 | 90 | 100 | 410 | 600 |
| Loja | Loja | **Day 2**  Mobilization for two talks  Lodging Loja | National University of Loja (south) International University of Ecuador (center) | Group 6 | 90 | 100 | 40 | 230 |
| Loja | Loja | **Day 3**  Mobilization to the Institution for the talk Hospedaje Loja | Private Technical University of Loja (north) | Group 6 | 90 | 100 | twenty | 210 |
| Loja | Saraguro | **Day 4**  Loja-Saraguro-Loja mobilization  Lodging Loja | Higher Institute of Saraguro | Group 6 | 90 | 100 | 80 | 270 |
| Loja | Catamayo | **Day 5**  Loja-Catamayo-Loja mobilization  Lodging Loja | Our Lady of the Rosary Higher Institute | Group 6 | 90 | 100 | 30 | 220 |
| Loja | Loja | **Day 6**  Return Loja-Quito  Quito Airport Mobilization |  | Group 6 | 60 | 0 | 30 | 90 |
| Santo Domingo | Santo Domingo | **Day 1**  Mobilization Quito- Santo Domingo Hosting Santo Domingo |  | Group number 3 | 60 | 60 | 40 | 160 |
| Santo Domingo | Santo Domingo | **Day 2**  Mobilization to the Institution  Return Santo Domingo - Quito | Intercontinental University | Group number 3 | 60 | 0 | 40 | 100 |
| **TOTAL:** | | | | | **2100** | **1480** | **2020** | **5600** |

**TOTAL PROJECT COST : $ 5,600**

1. **CONCLUSION**

The realization of this project will be very useful at the national level, since we will all learn about Turner Syndrome, how to support these girls and women to have a better life quality. At the same time, the project will allow to obtain basic and necessary information, so that the The government can provide them with the necessary medical assistance.

I thank you in advance for your support and human quality, I say goodbye wishing you many successes

Sincerely

Ing Tatiana Pogo

Executive director

      FEPAST