



ORIGINAL

Sexually Transmitted Infections in the Community of Santa Ana Batha, Hidalgo, Mexico

Infecciones de Transmisión Sexual en la Comunidad de Santa Ana Batha, Hidalgo, México

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Abstract

Sexually transmitted infections [STI] represent a serious public health problem, which triggers different biological, economic and social complications, which is also related to migration, prostitution, and other factors. The present investigation was carried out with the aim of establishing an endemic channel on



Sexually Transmitted Infections and its association with migration, vacation periods and other factors of risk.

Methods. A retrospective descriptive observational study was carried out from a bibliographic review of the subject on the internet network retrospectively from 2016 to 2010 collected from SUIVE, in order to establish the endemic ITS channel of the Santa Ana Batha region, Chilcuautla Municipality, Hidalgo, compared with the influx of spas in the study region, it was also taken into account that the region is a migration step from the south to the north, and the epidemiological weeks were also related to the vacation periods.

Results. it was obtained as a result that during these periods the number of cases increased considerably and exceeded the alert zone.

Conclusion. The results obtained allow to establish as risk factors for STI the phenomenon of migration, the vacation periods and the influx to spas during vacation periods. This study allows us to establish that if we do not pay attention to risk factors, STIs will continue to mean negative results in the health of those involved.

Keywords

Sexual transmitted infections; endemic channel; migration; vacations; spas; risk factors

Resumen

Las infecciones de transmisión sexual [ITS] representan un grave problema de salud pública, que desencadena distintas complicaciones biológicas, económicas y sociales, que también se relacionan con la migración, la prostitución y otros factores. La presente investigación se realizó con el **objetivo** de establecer un canal endémico sobre Infecciones de Transmisión Sexual y su asociación con la migración, los periodos vacacionales y otros factores de riesgo.

Métodos. Se realizó un estudio Observacional descriptivo de caracter retrospectivo a partir de una revisión bibliográfica del tema en la red de internet de forma retrospectiva del año 2016 al 2010 recolectada del SUIVE, con el fin de establecer el canal ITS endémico de la región Santa Ana Batha, Municipio Chilcuautla, Hidalgo, comparado con la afluencia de balnearios en En la región de estudio, también se tomó en cuenta que la región es un paso migratorio de sur a norte, y las semanas epidemiológicas también se relacionaron con los periodos vacacionales.

Resultados. Se obtuvo como resultado que durante estos periodos el número de casos aumentó considerablemente y superó la zona de alerta.

Conclusión. Los resultados obtenidos permiten establecer como factores de riesgo de ITS el fenómeno de la migración, los periodos vacacionales y la afluencia a balnearios durante los periodos vacacionales.

Palabras clave

Infecciones de transmisión sexual; canal endémico; migración; vacaciones; balnearios; factores de riesgo



Introduccion

The concept of sexual transmission diseases (STI) includes the set of infections that can be clinically expressed with different symptomatology which have different etiological agents and are brought together by the epidemiological fact of sexual acquisition, without being this the only way to be transmitted⁽¹⁾. STI's involve principally the genital sphere, with the possibility for the participant agents to generate disseminated infections causing injuries to numerous organs⁽²⁾.

Sexual transmission diseases still remain as a public health problem in the world. Their consequences can be potentially severe for health and in some cases could lead to death not only to the affected person but it also increases maternal fetal morbidity and mortality. They also represent a considerable expenditure for health resources in all countries and Mexico is not the exception⁽³⁾.

The consequences behind STI's are dramatic having in mind its potential contribution to transmit (HIV). The epidemiological surveillance studies about vulnerable populations are a key fact due to the information they provide for prevention and intervention programs⁽⁴⁾.

WHO and ONU-SIDA consider that STI's surveillance it's a irreplaceable component in vigilance systems of HIV-SIDA. WHO considerates four crucial elements in STI's surveillance: cases notification, prevalence measurement and monitoring, STI's etiological evaluation and monitor antimicrobial resistance⁽²⁾.

Within the parameters that affect the STI's transmittion are found risk factors, understood as those who have a causal influence in the acquisition of the same.

Among these we can find: a) Sexual behavior - sexual partners ,Changing partners, prostitution, sexual habits (Anal sex increases diffusion while oral sex and feminin homosexuality results less efficient); b) contraception- barrier methods hamper contagion , IUD (intrauterine device) increase the ascending genital infection, oral contraceptives (OCP's) increase change in sexual behavior and exposition risks; c) STD's with ulcerated injuries contributes to transmission. Among the major risk markers are considered: a) Age, adolescence and cervical ectopy of young women are favoring factors; b) Gender:More frequent in men; c) drug addiction; d) low socioeconomic and cultural levels⁽⁵⁾.

Since the effectiveness of the transmission of STI's is not 100%, its necessary a minimum sexual activity and changing sexual partners for the infection to be spread. Without



these conditions, the cure rate would exceed the rate of new infections and the prevalence would reach zero.

It is proposed the existence of a central nucleus of population with elevated incidence in STI's and risk factors, which would work as a reservoir⁽⁶⁾. The remaining population would become infected when they temporarily get in contact this nucleus.

Persistent infections as HIV, genital herpes, etc., do not follow that propagation scheme, featuring a gradual increase of the infected population.

Asymptomatic bearers have a fundamental roll in STI's diffusion, whereby their detection is very important for cutting the transmission⁽³⁾.

This document revises STI's frequencies in Santa Ana Batha ,a town in Chilcuautla Hidalgo as it is part of a set of towns that host a large number of hot springs which has a large number of migrant population belonging to the neighboring states, as well as being part of the road that migrants from south of the country take to cross the northern border of the country⁽⁷⁾.

Migration phenomenon has intensified in the past two decades and it has had an exponential growth in the past few years. In this year we can approach the one hundred thousand immigrants of which a large percentage stayed in this area for approximately 30 days⁽⁸⁾.

In addition to this the number of people that attract the spas of the area in the holiday season of 2015 marked an influx of 1,705,501(Spa, 2015)⁽⁹⁾ as well as in the course of the year, determines a risk factor for the native population of the area which is close to 17,436 (INEGI, 2016) inhabitants in the municipality, and specifically the population of Santa Ana Batha with an approximate population of 4,800 inhabitants (INEGI, 2016)⁽¹⁰⁾, since its economy is based on farming and spa tourism , Tlaco spa is the closest one, in which the economically active population works and has an average influx of 10 thousand people in high season weekends and in the low season an average of one thousand people enter the spas (Spa, 2015)⁽⁹⁾.

Methods

An epidemiological design was made, observational descriptive of a retrospective character for which information was collected corresponding to the incidence of STIs in SUIVES of all institutions belonging to the health secretary, IMSS and ISSSTE through the SINAVE platform from 2010 to 2016 in the Santa Ana Batha, Xothi, Mejay, Tlacotlapilco in La estancia communities, for the construction of an endemic channel (Epidemiological, 2016)⁽¹¹⁾.



Parameters were obtained to elaborate a theoretical curve of expected incidence, based on the logistic model of growth, the parameters were estimated through a linear regression, from cumulative incidence data of the previous 5 years, the incidence was taken as an example weekly accumulated STI cases from the set of communities of influence of the Santa Ana Batha rural health center from the years 2010 to 2016 to build the endemic channel.

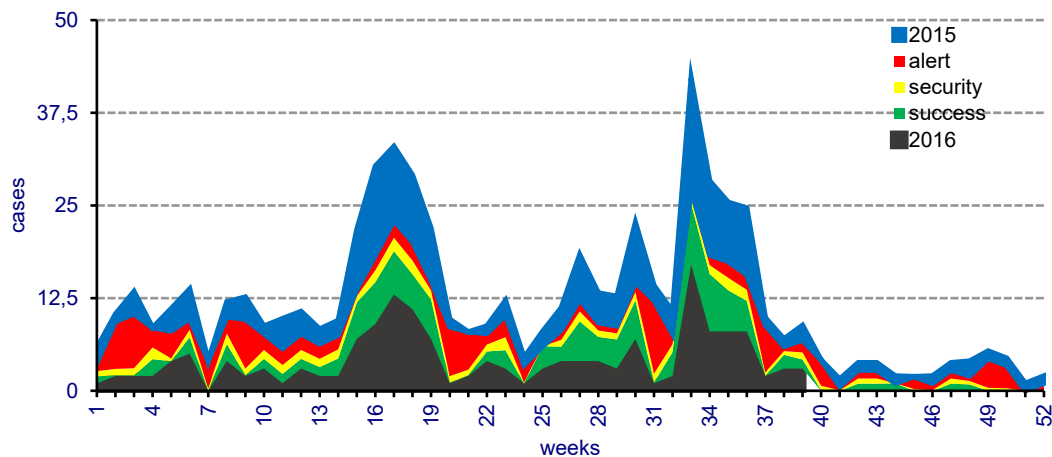
They were registered through epidemiological weeks which were related to the holiday periods belonging to the Easter week, to the summer period, taking in mind the incubation periods of the different causal agents.

The ticket books were taken from the Tlacotalpilco spa from the year 2015 from January to December, data were not counted from previous years, data were related to epidemiological weeks.

Results

The data that resulted from the formation of the endemic channel from the years 2010 to 2016, correlated with the epidemiological weeks corresponding to the holiday periods of Easter and summer vacations, during the five years of the study, the incidences of registered STIs were collected in SUIVES (Epidemiological, 2016) community of Santa Ana Batha Hidalgo [Figure 1].

During the first weeks of fluctúa year inside the alert area and success, at week 5 and 6, it passes to the alert area and continues parallel to the security and success area until week 14, where an increase begins which exceeds the alert area, which decreases until week 20. Continues with a security trend until week 29 where it reaches the alert area, which decreases intensely in week 31 but similarly it triggers generating a peak that exceeds the zone of alert and enters in nosedive until the week that continues in zone of alert, until the week 38, continues parallel to the area of security and of success until week 49 where it resorts to a peak that encompass the zone of alert stays until week 52 of the year.



Source: SUIVE 2010-2016

Figure 1. Endemic Channel of Sexual Transmitted Infections, from the Santa Ana Batha Health Center 2010-2016

Discussion

The interest in studying this area stems from the increase in the occurrence of STIs, derived from the big migration that this area has, integrated with clandestine migration⁽¹²⁾, which provides a different paradigm.

This approach allows us to speak of vulnerability in clandestine migrants as a structural condition that expresses the potential harm to health in people without social power, but even as a problem of dissatisfaction with basic needs that can be associated with human rights violations precisely as a result of the lack of economic, social and legal resources to respond to a crisis of this nature⁽¹³⁾.

In Central America and the southern border of Mexico, more than half of undocumented migrants have some kind of sexual relationship during their trip. These are transactional sexual relations where women exchange sex for protection⁽¹⁴⁾. The above engage to migrant women and men in situations of vulnerability since they interact in risky contexts⁽¹⁵⁾, recognizing that the community of Santa Ana Batha is in the migrant's way, we can infer that this situation in the country also occurs.



In addition to this we have the floating population that comes in holiday weeks to the spa of Tlacotalpilco, who are preferably from Mexico City, State of Mexico, who spend their vacation time in the region and interact with the native population, with intentions to improve its economy, as well as to satisfy the client could be objects of an exercise of clandestine prostitution in the zone, since the one of cases of the region during these periods is shown in an epidemiological channel that the cases surpass the zones of alert. This suggests that these peaks in the endemic STI channel in the following weeks of the vacation periods are highly related to the direct interaction of the migrant population, from different parts of the country with the native population, it is important to mention that the greatest number of the notifying unit is not a migrant.

Conclusion

The results obtained allow to establish as risk factors for STI the phenomenon of migration, the vacation periods and the influx to spas during vacation periods. STIs increase to the extent that they exceed the alert zone.

This study allows us to establish that if we do not pay attention to risk factors, STIs will continue to mean negative results in the health of those involved.

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Conflict of interest

The **authors** declare that there is no conflict of interests

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