



General Directorate of Health Affairs
Qassim Region
Public Health Administration



Leishmaniasis Control Program, Qassim

Surveillance Report 2011

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Leishmaniasis Control Program

Leishmaniasis is a parasitic disease transmitted by the bite of blood suckling sand flies, which have previously fed on an infected reservoir host. There are two basic clinical presentations: visceral leishmaniasis (VL) or "kala-azar" and cutaneous leishmaniasis (CL). VL is the most severe and is fatal in almost all cases if left untreated. CL is usually diagnosed clinically and is associated with a strong tendency toward spontaneous resolution but causes important social and psychological stigma.

The life cycle of leishmania parasites usually includes a reservoir host such as: rodents, dogs and foxes. Leishmaniasis is prevalent in 88 countries, affecting an estimated 12 million people with approximately 2 million new cases per year, 500,000 of which are VL and 1,500,000 CL (90% of them in Afghanistan, Algeria, Brazil, the Islamic Republic of Iran, Peru, Saudi Arabia and Sudan).

Treatment of CL can be through:

- Local: Antimonials (pentostam) injections – cryotherapy.
- Systemic: Antimonials (pentostam) injections IM or IV – oral drugs such as fluconazole.

Qassim region has high incidence of cutaneous leishmaniasis, while visceral leishmaniasis hasn't been reported to be transmitted locally in Qassim. This report states aim, objectives, activities, achievements and challenges of Leishmaniasis Control Program in Qassim. The report also summarizes some epidemiological aspects of cutaneous leishmaniasis in Qassim in 2011.

Aim

To control cutaneous leishmaniasis in Qassim.

Objectives

- To reduce the incidence of cutaneous leishmaniasis in Qassim by 10% yearly.
- To improve the knowledge, attitude and behavior of the individuals as regards cutaneous leishmaniasis.
- To strengthen the surveillance system of cutaneous leishmaniasis.

Activities

1- Surveillance of cutaneous leishmaniasis cases

- Cases are notified by the diagnosing health care facilities to Vector - borne Diseases Control Center monthly through a line list including different variables such as age, sex, occupation and diagnosis.
- Within two weeks of notification, case-based surveillance form for every case is sent from the Primary Health Care (PHC) Centres where the case resides.
- A line list is sent from Vector - borne Diseases Control Centre to MOH monthly.

2. Entomological study for detecting the species of the vectors present in the region.

3. Mechanical and chemical control of the vector and the reservoir hosts in cooperation with the related sectors.

4. Training

- Dissemination of knowledge about Leishmaniasis Program by training programs organized for the health care staff including the health inspectors, PHC physicians and dermatologists.
- On - site training about Leishmaniasis Program during supervisory visits to the health centres.

5- Health education: Designing and disseminating health education materials about leishmaniasis such as posters and brochures.

Epidemiological Features of Cutaneous Leishmaniasis: Qassim, 2011

Salient Findings

- 84 % of cases of cutaneous leishmaniasis were males (Figure 1).
- 54 % of cases of cutaneous leishmaniasis were non-Saudis (Figure 2).
- 70 % of cases of cutaneous leishmaniasis belonged to age group 15 – 44 years, as cutaneous leishmaniasis is usually an occupational disease (Figure 3).
- The larger proportion of Saudi cases were below 14 years of age as the prevalent form of the disease in Qassim gives lifelong immunity, so it usually affects this age group, while the

larger proportion of non -Saudi cases were aged between 15 – 44 years, due to lack of previous exposure to the disease in their countries.

- Cases of cutaneous leishmaniasis reached a peak during winter months (January, February, and December) (Figure 4).
- Cases of cutaneous leishmaniasis were more prevalent in Al-Rass, Unaizah, and Midhnab (Figure 5), where agriculture is common and the nature of the environment is more suitable for multiplication of the vector (sand flies).

Figure 1: Notified Cases of Cutaneous Leishmaniasis by Gender: Qassim, 2011.
N= 534

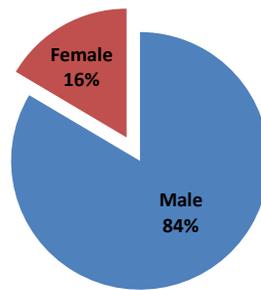


Figure 2: Notified Cases of Cutaneous Leishmaniasis by Nationality: Qassim, 2011.
N= 534

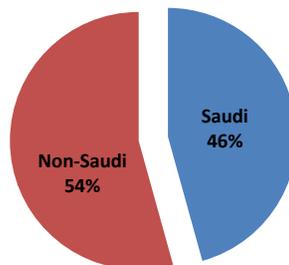


Figure 3: Notified Cases of Cutaneous Leishmaniasis by Age Group: Qassim, 2011.
N= 534

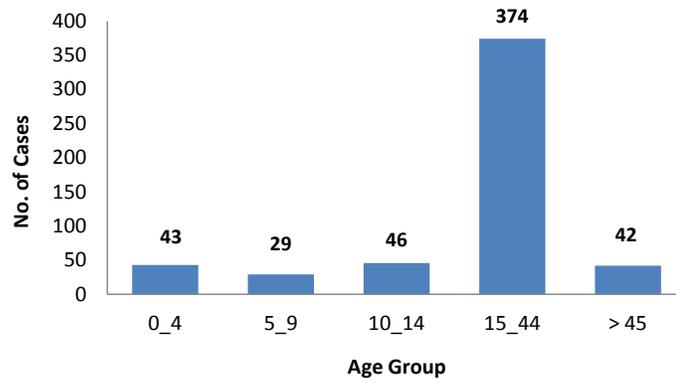


Figure 4: Monthly Distribution of Notified Cases of Cutaneous Leishmaniasis:
Qassim, 2011. N=534

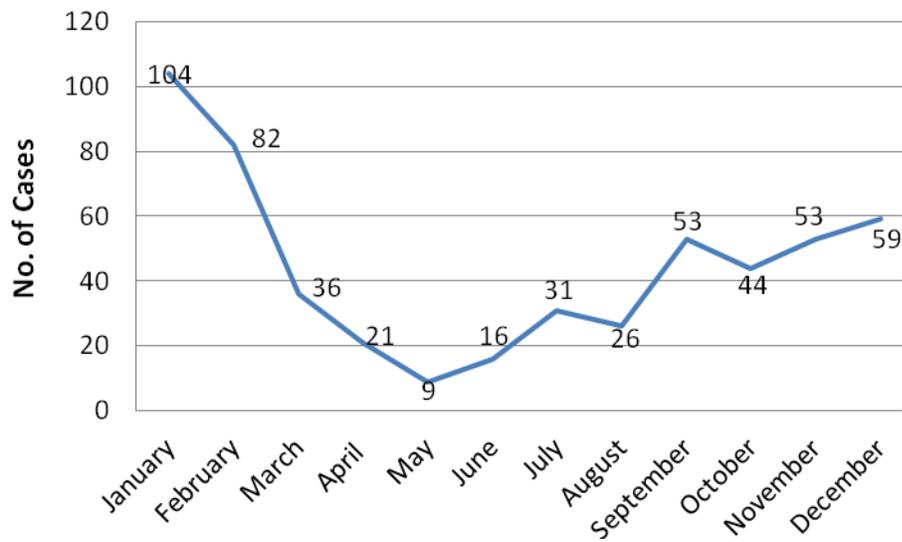
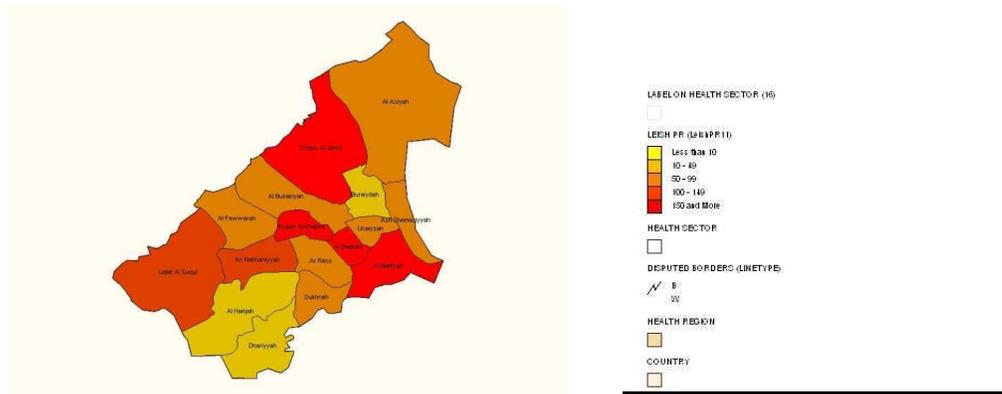


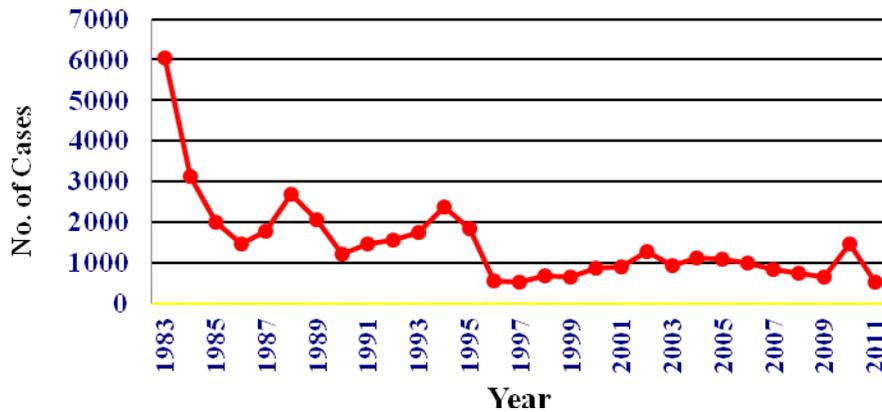
Figure 5: Notification Rate of Cases of Cutaneous Leishmaniasis by Health Sector:
Qassim, 2011. N= 534



Achievements

- There has been reduction in the number of notified cases of cutaneous leishmaniasis during the last 28 years (Figure 6).

Figure 6: Notified Cases of Cutaneous Leishmaniasis by Year: Qassim, 1983 - 2011.



- Chemical control of the vector and the reservoir hosts was applied in the catchment areas of the PHC Centres which reported cases of cutaneous leishmaniasis. A total of 98 PHC Centres registered at least one case of cutaneous leishmaniasis during 2011; out of these 67 (68.4%) PHC Centres received application of chemical control. These 67 PHC Centres were responsible for 395 (74%) cases registered in the year 2011.

Challenges

- Qassim is an agricultural region having a conducive environment for spread of leishmaniasis. To control the disease, an integrated approach, comprising of leishmaniasis surveillance, entomological surveillance, environmental management and health education, is required.

References

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