Framework for action on cutaneous leishmaniasis in the Eastern Mediterranean Region 2014–2018

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Foreword

Cutaneous leishmaniasis is highly prevalent among the tropical diseases in the WHO Eastern Mediterranean Region. The disease is endemic in 18 countries of the Region and, although not fatal, it causes immense stigma, affecting the social and economic well-being of people affected. The Region accounts for the highest burden of cutaneous leishmaniasis worldwide, with over 100 000 cases reported each year. However, the actual burden is estimated to be three to five times higher.

The disease is complex to control and treat. Variations in the parasite that causes it, the transmitting vector and the geographical distribution of the disease across the Region make it difficult for a single, ready-to-use method of control and treatment. WHO is committed to providing technical support to countries in the Region for the control of leishmaniasis, as expressed in the resolutions approved in 1993 and 2007. In this context, I am pleased to share with you the *Framework for action on cutaneous leishmaniasis in the Eastern Mediterranean Region 2014–201*8. This first standardized framework for action will make it easier for countries to monitor and evaluate progress in the efficacy of medicines and the control of the disease. It sets clear targets, which are ambitious but necessary to improve the control of the disease and its case management.

Implementation of this new strategy will have a positive impact on people's health in the Region.

Dr Ala Alwan
WHO Regional Director for
the Eastern Mediterranean

Preface

Cutaneous leishmaniasis is one of the main tropical diseases in the WHO Eastern Mediterranean Region. The disease continues to pose a real challenge because it is difficult to control and it requires the intervention of other stakeholders in addition to the health sector. WHO has prepared the *Framework for action on cutaneous leishmaniasis in the Eastern Mediterranean Region 2014–2018* with the aim of supporting the efforts that countries devote to decreasing the impact of the disease.

This framework sets five regional targets on surveillance, case management, prevention, capacity-building and research, aimed at reducing the disease burden. It addresses how to respond to the need for cutaneous leishmaniasis control and formulates an action plan to make operational the principles and major areas of intervention. A set of indicators and forms offers a standardized tool to assist in reporting and data analysis, thus facilitating comparison between countries of the results obtained in different endemic areas and learning from each other.

The framework was developed in consultation with Member States of the Region and experts in the field. It was reviewed by national programme managers.

Introduction

Global and regional commitment to leishmaniasis control

The WHO Regional Office for the Eastern Mediterranean has a long-term commitment to support and strengthen leishmaniasis control programmes in the endemic and most affected countries of the Region. This commitment dates back to 1993, when the WHO Regional Committee for the Eastern Mediterranean and Member States agreed on the first major actions to be undertaken in the control of leishmaniasis, addressing the two forms of the disease: cutaneous and visceral.

Three resolutions are milestones in the evolution and stages of the commitment endorsed and shared among countries and WHO at the international and regional levels (see Annex 1):

- WHO Regional Committee for the Eastern Mediterranean resolution on leishmaniasis (EM/RC40/R.7), 1993;
- World Health Assembly resolution on control of leishmaniasis (WHA60.13), 2007;
- WHO Regional Committee for the Eastern Mediterranean resolution on neglected tropical diseases (EM/RC54/R.3), 2007, which effectively established the control of leishmaniasis within the context of neglected tropical diseases.

The global health agenda has been building an unprecedented momentum in the fight against neglected tropical diseases, including leishmaniasis. This stands as an opportunity not only to catalyse further coordination among partners but also to revise and enhance the definition of strategies and objectives in the control of leishmaniasis.

Based on evaluation of the regional and global efforts so far among countries and relevant stakeholders, this document proposes a framework for cutaneous leishmaniasis control. It shares the same evaluation of the major challenges faced by the cutaneous leishmaniasis control programmes and proposes harmonized strategies to curb the spread of cutaneous leishmaniasis and reduce the burden within the next 5-year period.

The framework aims at positioning the cutaneous leishmaniasis programme within the health system of the country, rather than having a disease-specific and vertical approach. It will enhance control efforts with the ultimate goal of reducing the severity of cutaneous leishmaniasis and lessening its impact in terms of disabilities. Regional and global partnerships will remain a key strategic approach to providing innovative solutions to the challenges leishmaniasis control programmes are facing in terms of control and prevention, and their sustainability at the regional level.

Annex 2 gives a set of indicators for surveillance and Annexes 3 and 4 a standardized tool for monthly reporting.

Current situation

Cutaneous leishmaniasis is one of the diseases for which cost-effective control tools do not exist and where large-scale use of existing tools is limited. In some countries, determinants such as wars, population movements or environmental changes, along with weak health systems, affect not only a rapid response, but also the programme's capacity to ensure case management on a regular basis.

The burden of cutaneous leishmaniasis has different dimensions, which requires sustained action from health policy-makers, national programme managers and international partners, including WHO. The burden of this disease can be seen through two levels.

The first level refers to the epidemiology. The second level refers to the social and economic burden of leishmaniasis. The high cost of treatment, when not provided by public programmes, prevents the most vulnerable population groups from seeking medical care.

Types of cutaneous leishmaniasis and geographic distribution

Cutaneous leishmaniasis comprises a group of protozoan diseases transmitted to mammals, including human beings, by phlebotomine sandflies. In any new focus, it is a prerequirement to identify the different elements of the transmission cycle: parasite, vector species and the potential animal reservoir. Regarding the transmission cycle of the infection, *Leishmania* species can primarily be distinguished as:

- anthroponotic (*L. tropica*), where the main reservoir host is the human being and infection is transmitted by *Phlebotomus sergenti*. It tends to occur in villages, towns and suburbs of cities with dense human populations. It is found in Afghanistan, Islamic Republic of Iran, Iraq, Jordan, Morocco, Pakistan, Saudi Arabia, Syrian Arab Republic and Yemen.
- zoonotic (mainly *L. major*), where the main reservoir hosts are other mammals, such as gerbils, and infection is mainly transmitted by *Ph. papatasi*. It is found in Afghanistan, Egypt, Islamic Republic of Iran, Iraq, Jordan, Libya, Morocco, Pakistan, Saudi Arabia, Sudan, Syrian Arab Republic, Tunisia, West Bank and Gaza and Yemen.

Some forms of cutaneous leishmaniasis are sporadic, such as those caused by strains of *L. infantum* which usually cause zoonotic visceral leishmaniasis.

Epidemiological trends

Cutaneous leishmaniasis is endemic in 87 countries worldwide with an estimated 500 000–1 000 000 new cases per year. Countries in the Region contribute approximately 57% of the total burden. Over 100 000 new cases of cutaneous leishmaniasis are reported annually to WHO by countries in the Region, but the actual incidence is estimated to be three to five times higher.

The three main reasons incriminated in under-reporting are:

- patients not seeking medical care when it does not affect the face as the disease is usually known as self-curing;
- socioeconomic constraints and other barriers preventing patients from being diagnosed; and
- policies where leishmaniasis is not a notifiable disease or there is weak health information system.

In the Eastern Mediterranean Region there is an increasing trend in the number of new cases of cutaneous leishmaniasis. This is partly explained by improvements in surveillance and diagnosis of cases but is also a consequence of the poor implementation or evaluation of control activities, and by socioeconomic factors.

In several countries in the Region, outbreaks are occurring with an interepidemic interval ranging from 4 to 10 years, depending on the importance of transmission, host immunity and intervention programmes.

Socioeconomic barriers affecting treatment access and compliance

The heavy economic burden for patients in countries where treatment is not regularly provided free of charge by the public sector mainly comes from the high direct cost of the full treatment regime, which ranges within:

- US$ 12 for generic sodium stibogluconate;
- US$ 13 for branded meglumine antimoniate when supplied at the preferential price as agreed with WHO (but not all countries in the Region have access to this price); and
- US$ 47 for branded sodium stibogluconate for intralesional treatment, and approximately three times this figure for systemic treatment. [1]

Treatment costs are not the only main barrier: logistic problems in accessing primary health centres and health economic shocks at the household level contribute to weak compliance to treatment. Where public supply systems are not able to provide reliable access to treatment, people are forced to resort to purchase of medicines from the private sector.

[1] Prices as of July 2011 (patient of 35 kg). Prices as indicated in WHO price list.

Health system challenges

Some of the countries most affected by cutaneous leishmaniasis in the Region are also those with the biggest health system challenges. Constraints are mainly identified as follows:

- Surveillance systems: a number of national surveillance systems have inadequate capacity for surveillance and diagnosis, particularly at the peripheral level.
- Coordination between private and public health care providers: coordination is often lacking, especially in data reporting and sharing with other implementing partners.
- Standardized protocols and quality assurance: several countries lack evidence-based protocols for control interventions against sandflies and mammalian reservoirs and quality assurance systems.
- Evaluation: the impact of control strategies is often not evaluated.
- Accessibility of medical care: services are often limited and suffer from lack of adequate infrastructure, particularly at the primary health care level.
- Health care workers: there are often insufficient qualified health care workers to ensure adequate provision of cutaneous leishmaniasis services and trained staff may be difficult to retain.
- Capacity-building: strategic planning for capacity-building, based on evidence of training needs is often lacking.
- Procurement system and supply chains: control mechanisms to ensure medicines available are of adequate quality are often lacking.

To address those challenges the following interventions are suggested:

- Establish integration with other disease programmes when operationally feasible, technically acceptable and financially sustainable.
- Ensure harmonization between recommended actions and the real mechanisms of health service delivery to close the gaps between policy and implementation.
- Establish governance mechanisms and procedures to promote and build different expert profiles in cutaneous leishmaniasis control programmes (e.g. minimum retention period upon training, strengthening health information systems).

Environmental changes

Environmental changes, such as those caused by climate change, agricultural development projects or disasters, may affect distribution of vector and rodent populations. These changes may enable the spread of transmission cycles to new populations, leading to outbreaks.

Framework for action on cutaneous leishmaniasis in the Eastern Mediterranean Region 2014–2018

Regional vision, mission and targets

Vision

To improve the health status of vulnerable groups and at-risk populations living in areas of the Region that are endemic by reducing the burden of disease due to cutaneous leishmaniasis.

Mission

To significantly reduce the burden of cutaneous leishmaniasis in the Region by:

- ensuring access to effective, affordable and safe diagnosis and treatment for patients;
- preventing spread of infection and disease to susceptible populations;
- reducing the social and economic toll of the disease;
- involving and mobilizing all relevant partners in health, social and economic development in control activities.

Targets

- *Surveillance*: to detect and report at least 75% of all cutaneous leishmaniasis cases[2] within populations at risk.
- *Case management*: to provide all detected cutaneous leishmaniasis cases with access to diagnosis and treatment in line with best practice protocols and in a sustained manner.
- *Prevention*: to reduce exposure in the at-risk population by having at least a 10% yearly reduction in incidence in children aged less than 15 years in foci of 10 or more years' existence.
- *Capacity-building*: to ensure all staff involved in the delivery of all elements of the control programme in endemic countries are appropriately trained at least twice within 5 years.
- *Research*: to implement five major inter country research projects to fill the gaps in identified control priorities, mainly to identify the most cost-effective

[2] Annual estimate is 360 000–660 000 new cases, but only 100 000–120 000 are currently reported.

measures for disease control and innovative, safer and more effective first-line treatment options.

Actions at regional level

At the regional level the framework aims to achieve the five targets through the following actions.

1. *Surveillance: Establish a regional standardized surveillance system*

   - Develop and implement common standardized data collection forms, surveillance indicators and data analysis plans for the regional leishmaniasis programmes, including quality assurance system.
   - Create a regional database for monitoring and evaluating the progress of disease control, including mapping of the disease.
   - Facilitate review and evaluate programmes by coordinating the assessment at the regional level between countries and WHO.

2. *Case management: Produce a regional manual for diagnosis and treatment of cutaneous leishmaniasis*

   - Establish a regional technical advisory group to develop the manual.
   - Create a regional database for monitoring and evaluating the progress of diagnostic and treatment activities.
   - Analyse data available at the country level on the outcome of different treatment protocols (dosage length) to detect and report unresponsiveness to medicines.
   - Support countries to make diagnostics and antileishmaniasis medicines available. Establish a country-based regional inventory to monitor the distribution of diagnostic supplies and antileishmaniasis medicines.

3. *Prevention: Produce a regional manual for prevention and control of cutaneous leishmaniasis*

   - Establish a regional technical advisory group to develop the manual.
   - Promote the use of cost-effective and environmentally friendly vector control/animal reservoir control measures.

4. *Capacity-building: Develop capacity-building in prevention, diagnosis, treatment and control of cutaneous leishmaniasis.*

   - Conduct periodic training on different aspects of the disease for health staff involved in leishmaniasis control.
   - Create a web-based information-sharing tool to disseminate technical information and facilitate exchange of expertise.

5. *Research: Promote and guide the development of a clearly defined regional research agenda.*

    - Support countries to implement research projects through technical advice or financially if feasible.
    - Strengthen intercountry networks to develop platforms of expertise.

For all actions to disseminate the results through publications in scientific journals as appropriate.

Actions at country level

This section proposes a set of actions that decision-makers should implement at the country level under the general framework.

6. *Surveillance:*

    - Establish a clear coordination plan between passive and active surveillance, including the private sector and sentinel sites for cross-border surveillance where applicable. Early case detection and prompt treatment is crucial for anthroponotic cutaneous leishmaniasis.
    - Integrate cutaneous leishmaniasis surveillance within the national integrated disease surveillance and response systems.
    - Develop and implement a common monitoring and evaluation framework to be shared and used by all implementing partners, including the private sector. In complex emergency settings disease surveillance tools are to be used by the different partners, whether national or international.
    - Implement geographical information systems to map out and identify risk factors, areas of transmission risk, associations between disease distribution and socio-demographic determinants.
    - Assess and review periodically the collected information to identify gaps and strengths of the programmes and take appropriate actions. Information should be shared with all implementing partners.
    - Track the spread of the disease from old to newly emerging foci, including timely identification of outbreaks in any foci to allow rapid response.

7. *Case management:*

    - Develop national guidelines on case management, with regular updates.
    - Avail early diagnosis and prompt treatment to obtain a sustained reduction in the proportion severe cases, including in crisis settings.
    - Provision of effective and systematic first-line treatment, including a policy for quality, safety and market price regulation.
    - Improve awareness and knowledge among vulnerable populations to encourage early diagnosis and treatment-seeking behaviour.

- Detect and report case unresponsiveness to medicines as a potential indicator of resistance.

8. *Prevention: The strategic integration of multisectoral control interventions calls primarily for coordination among different ministries (e.g. agriculture, health and education) to define and implement the following actions.*

   - Assess the ecology of sandflies at national and subnational levels to provide evidence for further development of vector prevention and control action plans.
   - Develop national vector management options with low environmental impact. Vector control should be a comprehensive approach that includes animal reservoir hosts in zoonotic cutaneous leishmaniasis endemic areas. The contribution of the national ministries of agriculture is essential at this level of implementation.

9. *Capacity-building:*

   - Identify knowledge gaps and training needs among health staff.
   - Prioritize training on surveillance and case-finding, case management and entomological and mammal monitoring, ensuring standardization and quality control.
   - Develop a series of trainings targeting trainers to facilitate dissemination of knowledge. Special attention should be given to training of medical entomologists and mammalogists.

10. *Research: The following activities are proposed to enhance countries' research agenda.*

    - Conduct multicentric clinical trials.
    - Assess the impact of control strategies implemented.
    - Conduct research in the areas proposed and summarized in Table 1.

Defining indicators for tracking progress

A common framework for monitoring and evaluation should be shared and implemented to support the regional framework for action.

The indicators set out in Table 2 will allow countries to assess the progress and impact of activities carried out by the control programmes.

Table 1. Research priority areas for cutaneous leishmaniasis control

Type of research	Major scope, objectives
Clinical	Assess the current treatment protocols in use
	Develop cost-effective and alternative treatment protocols, such as local or topical procedures
	Diagnostics – sensitive and appropriate, including point of care, new diagnostic rapid tests based on antigen detection to differentiate between *L. tropica and L. major*
	Develop appropriate, safe and effective third-generation vaccines
Epidemiological	Identify basic epidemiological data (parasite, vector, reservoirs) in new foci
	Tackle the distribution and determinants of cutaneous leishmaniasis in at-risk population groups, including environmental and climate change
	Develop models for the early warning of the cutaneous leishmaniasis epidemics emergence
	Evaluate the role of leishmaniasis recidivans in disease transmission
Health systems	Analyse the service provision for case management of leishmaniasis patients, along with financing mechanisms and utilization of leishmaniasis health services
	Identify and describe mechanisms to facilitate access to existing control measures
	Analyse operational and financing mechanisms related to the provision, access and utilization of leishmaniasis health services in special settings and country context (fragile states)
	Identify in a real operational context the system weaknesses and strengths to define better solutions for leishmaniasis national programme managers/focal points
Socioeconomic	Assess and describe the social, cultural, economic and behavioural factors that may modify the risks and outcome of leishmaniasis among affected populations, particularly among the most vulnerable population groups
Vector and reservoir hosts	Identify and establish the bionomics of reservoir hosts to be used in control strategies, especially the mammalian reservoir for zoonotic cutaneous leishmaniasis
	Identify new methods to control sandflies
	Assess the effectiveness of insecticide-spraying campaigns to control sandflies and cutaneous leishmaniasis
	Define the factors attracting sandflies to skin lesions

Table 2. Indicators for assessment of the progress and impact of activities carried out by the control programmes

Defining achievements and results: indicators as measurement tools	Tracking achievements and results: deliverables for verification	Responsible implementer
1. Number of months between onset of symptoms and diagnosis 2. Treatment rate (*monthly*): number of cases treated according to guidelines/total number of patients treated 3. Number of patients treated with antimonials systemically/total number of patients diagnosed (*monthly*) 4. Number of lupoid (recidivans) cases (*monthly*) 5. Cure rate [a] (*yearly*): number of cases cured/total number of cases treated (for a particular therapy) 6. Treatment failure rate (*yearly*): number of cases with treatment failure [b]/total number of cases treated (for a particular therapy) 7. Relapse rate (*yearly*): number of cases relapsed [c]/total number of cases treated (for a particular therapy) 8. Percentage of serious adverse events cases (*monthly*) in patients treated with systemic antimonials: number of cases with serious adverse effects/total number of cases treated 9. Health care system performance: number of health facilities per country level where diagnosis and treatment regimens are available (first-line regime) in endemic areas/total number of health facilities in endemic areas 10. Rate of stock-out: number of health facilities at the country level with stock-out of medicine/total number of health facilities 11. Number of countries having adapted their national guidelines to the *Manual for case management for cutaneous leishmaniasis in the WHO Eastern Mediterranean Region* 12. Number of countries having reportedon programme progress for a particular year 13. Number of new cases diagnosed monthly (for each type of leishmaniasis) 14. Rate of new foci investigated: number of new foci investigated/total number of new foci in the country	Country reports from the national leishmaniasis control programmes Health care system performance checklists and related reports Stock cards for medicines and laboratory supplies National routine surveillance reports. Subnational reports collecting data through active surveillance Reports from sectors other than the Ministry of Health (e.g. private sector, nongovernment organizations, military) Supervisory visits reports Country-based plans harmonized with the regional framework Coordination/review meeting proceedings National committees meeting minutes Meeting reports from the regional group of leishmaniasis experts Online knowledge exchange networks Country-based research agendas and work plans Research and development reports on cutaneous leishmaniasis	National leishmaniasis focal point/national programme managers in coordination with national drug management facility programme/department Technical guidance and coordination from the Regional Office National leishmaniasis focal point/national programme managers in coordination with national surveillance programme/department Technical guidance from the Regional Office and cutaneous leishmaniasis programmes Other data-reporting units/organizations (e.g. nongovernment organizations, military epidemiological surveillance systems) National leishmaniasis focal point/national programme managers in coordination with national health systems/health policy programme or department Technical guidance and support for multipartner coordination from the Regional Office WHO collaborating centres support in coordination with Regional Office and tropical diseases research programme

15. Number of countries with routine reporting system for passive and active surveillance integrated into the national surveillance system (including other sectors: private, nongovernmental organizations, etc.)	
16. Number of countries with national budget for the leishmaniasis control programme	
17. Number of countries with external funding sources complementary to the national budget for the leishmaniasis control programme	
18. Number of countries with national control programmes	
19. Number of operational research projects completed	
20. Percentage of leishmaniasis personnel trained: Number of personnel trained/total number of personnel	

[a] Cure is defined as complete re-epithelialization before Day 45 (see *Manual for case management for cutaneous leishmaniasis in the WHO Eastern Mediterranean Region*).

[b] Treatment failure is defined as an increase in size of a nodule, plaque or ulceration within 14 days of treatment or lack of complete re-epithelialization within 45 days since the treatment started (see *Manual for case management for cutaneous leishmaniasis in the WHO Eastern Mediterranean Region*).

[c] Relapse is defined as the reappearance of a nodule, plaque or ulceration after cure. Parasitological confirmation only in complex cases (see *Manual for case management for cutaneous leishmaniasis in the WHO Eastern Mediterranean Region*).

Annex 1. WHO resolutions pertaining to leishmaniasis

Resolution	Role of WHO	Role of Member States
WHO Regional Committee for the Eastern Mediterranean resolution on leishmaniasis, EM/RC40/R.7 (1993)	• Support planning and implementation of national leishmaniasis control programmes • Facilitate regional cooperation on the control of the disease	• Undertake epidemiological assessment of leishmaniasis • Prepare national programmes for the prevention and control of leishmaniasis, using a multisectoral approach • Promote community involvement in preventive and control activities • Ensure availability of diagnosis and antileishmaniasis drugs • Support control measures against vectors and reservoir hosts • Develop capacity-building in the diagnosis, treatment, prevention and control of leishmaniasis
Sixtieth World Health Assembly resolution on control of leishmaniasis, WHA60.13 (2007)	• Raise awareness of the global burden of leishmaniasis • Draft guidelines on prevention and management of management with a view to elaborating regional plans and fostering the establishment of regional groups of experts • Strengthen collaborative efforts among multisectoral stakeholders • Promote research pertaining to leishmaniasis control • Monitor progress in the control of leishmaniasis • Promote action with the major laboratories in order to reduce the costs of medicines • Promote and support: (a) evaluation of the efficacy of new medicines; (b) evaluation of dosage and length of treatment for existing medicines; and (c) standardization of diagnostic reagents, in particular for visceral leishmaniasis Facilitate improved coordination among multilateral institutions and international donors concerned with leishmaniasis	• Set up national control programmes that would draw up guidelines and establish systems for surveillance, data collection and analysis • Strengthen prevention, active detection and treatment of cases • Strengthen the capacity of peripheral health centres to deliver care • Provide appropriate affordable diagnosis and treatment • Conduct epidemiological assessments in order to map foci • Calculate the real impact of leishmaniasis through accurate studies of prevalence and incidence, socioeconomic impact and access to prevention and care • Strengthen collaboration between countries that share common foci or disease threats • Promote the sustainability of surveillance and leishmaniasis control • Support studies on the surveillance and control of leishmaniasis

Resolution	Role of WHO	Role of Member States
		• Advocate high-quality and affordable medicines and appropriate national drug policies • Encourage research on leishmaniasis control
WHO Regional Committee for the Eastern Mediterranean resolution on neglected tropical diseases, EM/RC54/R.3 (2007)	• Continue to support Member States in their capacity-building efforts, development of appropriately targeted programmes and production of necessary guideline • Support operational research in the field of neglected tropical diseases, particularly practical implementation of available prevention and control strategies	• Give high priority and political commitment to the control of neglected tropical diseases • Include neglected tropical diseases in the national development plans and allocate appropriate budgetary support for prevention and control • Develop national plans of action to scale-up prevention and control, taking into account existing global and regional targets and strategies for disease control • Strengthen partnerships at global, regional and national level, including the private sector • Invest in operational research in discovery, development and delivery of new medicines, vaccines and diagnostic products

Annex 2. Surveillance indicators

Cutaneous leishmaniasis surveillance indicators

Country: **Year:**	
1.	Number of months between onset of symptoms and diagnosis (median):
2.	Treatment rate (monthly) Number of cases treated according to guidelines/total number of patients treated:
3.	Number of patients treated with antimonials systemically/total number of patients diagnosed (monthly):
4.	Number of lupoid (recidivans) cases (monthly):
5.	Cure rate (follow-up 6 months) Number of cases cured/ total number of cases treated:
6.	Treatment failure rate (follow-up 6 months) Number of cases with treatment failure/ total number of cases treated:
7.	Relapse rate (follow-up 6 months) Number of cases relapsed/total number of cases treated:
8.	Percentage of serious adverse events cases (monthly) in patients treated with systemic antimonials Number of cases with serious adverse effects/total number of cases treated:
9.	Health care system performance Number of health facilities per country level where diagnosis and treatment regimens are available (first-line regime) in endemic areas/total number of health facilities in endemic areas:
10.	Rate of cutaneous leishmaniasis health facilities with stock-out of medicines Number of cutaneous leishmaniasis facilities having faced stock-out of medicines (country level)/total number of cutaneous leishmaniasis health facilities:
11.	Has the country adapted its national guidelines to the *Manual for case management of cutaneous leishmaniasis in the WHO Eastern Mediterranean Region*:
12.	Has the country reported this year on programme progress:
13.	Number of new cases diagnosed monthly (for each type of leishmaniasis):
14.	Rate of new foci investigated Number of new foci investigated/total number of new foci in the country:
15.	Is cutaneous leishmaniasis reporting integrated into the national surveillance system (including private sector, nongovernment organization, etc.)?
16.	Is there a national budget line for the cutaneous leishmaniasis control programme?
17.	Are there external funding sources to complement the national budget?
18.	Is there a national control programme on leishmaniasis?
19.	Number of operational research projects completed:
20.	Percentage of leishmaniasis personnel trained: Number of personnel trained/total number of personnel

[a] *Manual for case management of cutaneous leishmaniasis in the WHO Eastern Mediterranean Region*. Cairo, World Health Organization Regional Office for the Eastern Mediterranean, 2013.

Annex 3. Monthly report forms (anthroponotic cutaneous leishmaniasis)

Anthroponotic cutaneous leishmaniasis (ACL) surveillance (diagnosis and treatment)													
Country: **Year:**													
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
No. of new cases of ACL diagnosed													
No. of severe new cases of ACL diagnosed													
No. of new cases of ACL confirmed parasitologically													
No. of lupoid (recidivans) cases													
No. of new cases of ACL treated													
No. of failure cases treated													
No. of previously defaulters treated													
Total cases of treated													
No. of cases of treated with systemic antimonials													
No. of new cases of ACL treated													
Discharged (initial cure)													
Defaulters													
Failure													
No. of patients with serious adverse effects of the treatment													

No. of failure cases treated													
Discharged (initial cure)													
Defaulters													
Failure													
No. of patients with serious adverse effects of the treatment													

Demographic characteristics, new cases of anthroponotic cutaneous leishmaniasis diagnosed													
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Total**
Gender													
Male													
Female													
Age group													
<5 years													
5–14 years													
≥15 years													
Total													

ACL surveillance (mapping)													
Country: **Year:** **Geographical origin of patients (new cases of anthroponotic cutaneous leishmaniasis):** **Place of infection (if known):**													
Province and county	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**

Annex 4. Monthly report forms (zoonotic cutaneous leishmaniasis)

Zoonotic cutaneous leishmaniasis (ZCL) surveillance (diagnosis and treatment)													
Country: **Year:**													
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
No. of new cases ZCL diagnosed													
No. of severe new cases of ZCL diagnosed													
No. of new cases of ZCL confirmed parasitologically													
No. of new cases of ZCL treated													
No. of failure cases treated													
No. of previously defaulters treated													
Total cases treated													
No. of cases treated with systemic antimonials													

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
No. of new cases of ZCL treated													
Discharged (initial cure)													
Defaulters													
Failure													
No. of patients with serious adverse events of the treatment													
No. of failure cases treated													
Discharged (initial cure)													
Defaulters													
Failure													
No. of patients with serious adverse events of the treatment													

Demographic characteristics, new cases ZCL diagnosed													
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Total**
Gender													
Male													
Female													
Age group													
<5 years													
5–14 years													
≥15 years													
Total													

ZCL surveillance (mapping)													
Country: **Year:** **Geographical origin of patients (new zoonotic cutaneous leishmaniasis cases):** **Place of infection (if known):**													
Province and county	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**

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