

# Special Topic: Decision-Making

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Chair: Dr. Celsa Sampson, PAHO/WHO, Brazil

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## Dominican Republic PELF: Integrating an Elimination Program during Times of Reform



**Margaret C. Fraser, PhD Student, Liverpool School of Tropical Medicine (LSTM); National Center for Tropical Disease Control (CENCET); Centers for Disease Control & Prevention (CDC); Emory University Lymphatic Filariasis Support Center (LFSC)**

### Introduction

As part of her thesis project, Margaret Fraser worked with the LSTM in the Dominican Republic (DOR) and has received support from the CDC, Emory University, and [informally] PAHO to describe the integration of the Program to Eliminate Lymphatic Filariasis (PELF) with the DOR's UNAP system (Primary Health Care Unit (*Unidad de Atención Primaria*)) and to evaluate it. This study aims to describe the process of integration and measure its impact on both the state health system the lymphatic filariasis (LF) program is being integrated into and the PELF itself. The hypothesis analyzes whether or not the benefits go both ways. Evidence is being sought for opposite theses.

#### Hypothesis

- Impact on health systems (HS)
  - a. Integration will benefit HS
  - b. Integration will harm HS
- Impact on PELF
  - a. Integration will benefit PELF
  - b. Integration will harm PELF

### Overview

This presentation describes the first part of the study<sup>1</sup>, including an exploration of the

potential impacts through literature review, observation, focus groups, self-administered questionnaires to community volunteers and UNAP staff, and in-depth interviews with provincial and regional health directors.

- a. Literature review
- b. Observation: workshops, committee meetings, etc.
- c. Focus groups (PELF team)
- d. Self-administered questionnaires to community volunteers (850)
- e. Self-administered questionnaires to UNAP staff (228)
- f. In depth interviews with Region IV province and regional directors

The description of the integration process will be separated into the “operational integration”—integration at the point of delivery, such as a mass drug administration (MDA)—and “administrative integration”—the planning and evaluating part (e.g., health education). The operational integration is the strongest part of the process in the country so far as well as the first part. The MDA, initially run by the PELF, has been integrated into the UNAPs, which are now involved with drug distribution. This doesn't mean that the PELF is going to disappear in country operations—it's simply being integrated into the state health system.

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<sup>1</sup> The second part of the study will cover data collection of baseline information in Health Region IV (exposed) and Region V (unexposed) at the halfway point of the integration process. The same information will be

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collected one year later to measure some of the impacts more scientifically.

## Background

The DOR health systems are currently under reform. Changes include the following: decentralization (new regions and networks)

- separation of purchaser, provider, and regulator roles
  - Purchaser: Health Insurers—Private and government (National Health Insurance; *Seguro Nacional de Salud* [SeNaSa])
  - Provider: Regional Network (Region Office, Hospitals, UNAPs)
  - Regulator: SESPAS (Municipal Secretariat of Public Health and Social Assistance (*Secretaría de Estado de Salud Pública y Asistencia Social*/Ministry of Health [MoH]), decentralized through the Provincial Health Office (*Dirección Provincial de Salud*; DPS)
- addition of Basic Health Package
- strengthening of primary health care with cure and prevention focus.

The health system in the DOR is undergoing reform via an ongoing process of decentralization, and many new health regions have been formed. There has been a separation of the purchaser–provider and regulator roles, with health insurers, both private and government, now functioning as purchasers. The provider is the new regional network, which includes the regional health hospitals and the UNAPs. The regulator is the MoH, which has been decentralized to the provincial level. A basic health care package has been offered to all Dominicans, and the UNAPs have been strengthened with both a curative and prevention focus. The system is still in the process of reform, so these outputs have not been fully achieved. The PELF program in the Southwest is seeking to get involved with the integration process to help strengthen it.

### UNAPs

- Doctor, nurses, community health workers
- Population of 500–700 families
- Family records (census data, vaccinations, environmental information) held at UNAP clinic level
- Mapping high-risk groups and

environmental risk areas.

- Cure and prevention
- Referral and counter referral
- Home and school visits

The family health information system (*fichas familiares*) is quite an amazing system of health data cards that include information on housing and environmental conditions, household vaccines, and other demographic and health data. A large amount of information is available for each family served by the UNAP via these records, particularly housing information, which is mapped on area “health maps” (*croquis*) to highlight priority areas.

## Integration process

### 2002 (1st MDA)

- Contract signed with Jaime Mota Hospital to do hydrocele surgery and with IDCP for treatment of lymphedema cases
- No integration of MDA (as UNAPs not yet implemented)

For the first MDA (2002), a contract was signed with the hospitals for hydrocele surgery and with the IDCP for lymphedema cases. At that point, there was no integration of the MDA, because the UNAP system did not yet exist (it was established later as part of the health system reform). The research team knew about the development of the UNAPs, and waited for them to materialize, but decided to proceed with the work prior to their development.

### 2003 (2nd MDA)

- Initiating Operational Integration
  - Use of UNAP *fichas familiares* (family health care record) for census
  - Use of UNAP staff as human resource
  - UNAP staff train volunteers
  - UNAPs organize community volunteers
- Involvement of DPS
- Funding proposal for training UNAPs in lymphedema management accepted by Plan International
- Training materials developed

For the second MDA, the UNAPs were just starting to be rolled into place, so integration in that year required use of the new family health care record system (*fichas familiares*) to conduct the area census prior to the MDA. These *fichas* (health data cards) were also used for recording morbidity cases found among people participating in the MDA, so the MDA coverage information was recorded not only at the regional level, but also at the UNAP and household level.

2004 (3rd MDA)

- Strengthening Operational Integration
  - Training in use and organization of *fichas*
  - Suggestion to UNAPs to use *croquis* (health maps) to organize drug distributors by specific territories
  - Strengthen health education component
  - Continue to strengthen UNAPs with no staff
- Initiating Administrative Integration
  - 1st Integration workshop held with all levels of health care at which a contract is signed with the DPS and regional directors

2005 (preparing for 4th MDA)

- Strengthening Operational Integration
  - Survey of staff in all UNAPs (done jointly with Regional Office)
  - Proposed change to month-long (vs. weekend) MDA
- Strengthening Administrative Integration
  - 2nd Integration workshop (on Plan of Action for further integration)
  - Planned workshops by PELF for DPS managers in planning, evaluation, training, supervision, and leadership

In the operational integration (see Figure 1), the PELF was expanded from 11 municipalities to the entire Southwest region.

#### Training

All doctors, nurses, and “health promoters” within the UNAPs were evaluated prior to

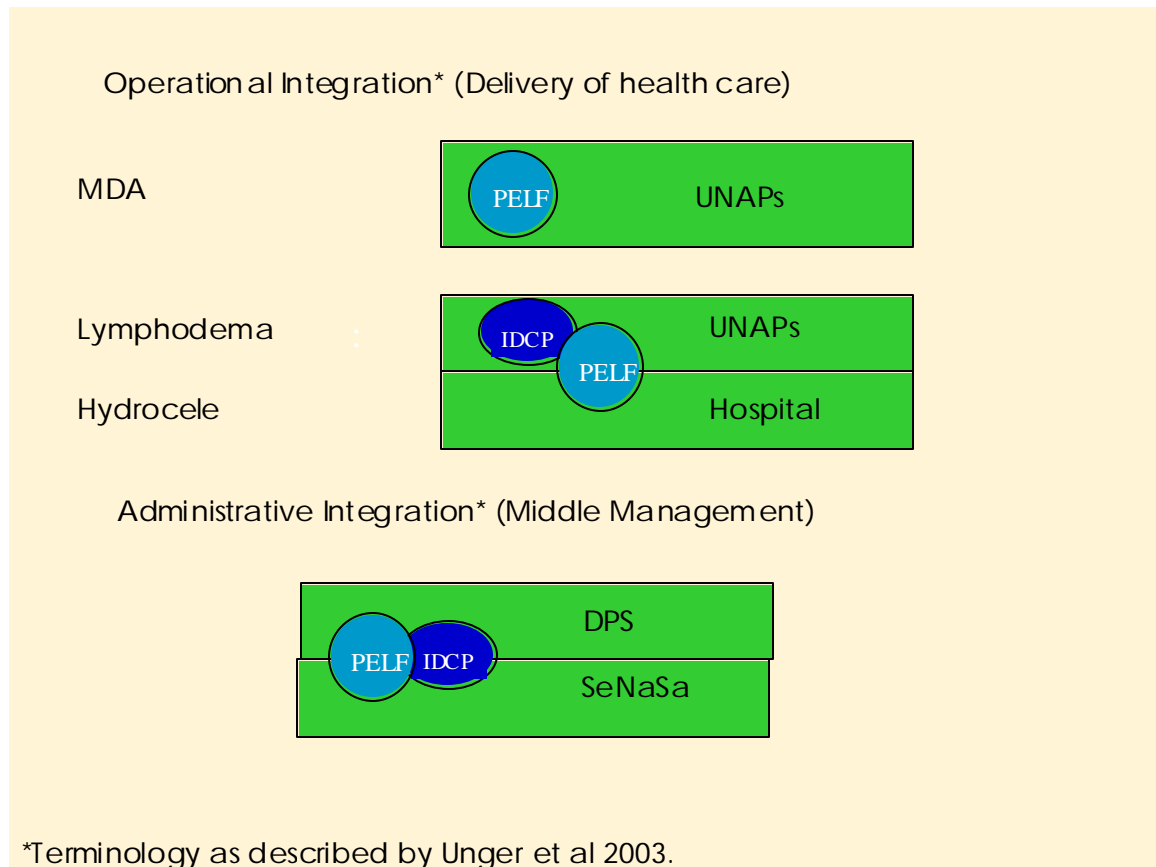
conducting the MDA. They also helped train community volunteers and organize them for the MDA. There was also involvement of the province health staff (i.e., the program met with all directors at the province level to inform them about the process and to encourage their participation). A proposal for funding to train the UNAPs in lymphedema management was submitted to and accepted by the nongovernmental organization (NGO) Plan International (PI) Inc., and materials for training people in lymphedema management were developed.

For lymphedema and hydrocele, the Dermatology Institute (*Instituto Dermatológico de Cirugía de la Piel*; IDCP) is also involved, working with lymphedema control. The plan is to try to re-integrate disease care into the UNAPs and to integrate hydrocele surgery within the hospital system. In terms of administrative integration, the plan is to focus on the Province Offices, which now have jurisdiction over health care regulation as well as the delivery of collective health care programs, and on SeNaSa, the government health insurance entity and a potential source of funding.

#### Impact

There has been increased recognition and job satisfaction for the PELF staff—a team of about 9 or 10 people who work in the field. The study was specifically looking for potential negative impact on the program, because some integration literature describes staff of the disease-specific programs obstructing the integration process because they fear for the jobs. In focus group with the PELF staff in the DOR, however, it was very clear that from the start they felt they had been taken on in order to teach other people how to do this job. And as part of the integration process (see Table 1), they felt they had much more recognition from the directors and from other parts of the health system. So it’s a good, strong, able team and it is being recognized and used as a resource in the region, which also increases job satisfaction.

**Figure 1. Integration process**



**Table 1. Integration by current activity**

PELF	IDCP	UNAPs	DPS
Planning and supervision of MDA	Treatment of lymphedema cases	Census	Supervision
Distribution of drugs		Training drug distributors	Organization of training
Health education materials		MDA distribution	Coordination with local NGOs
Training trainers		Treatment of side effects	
Calculating coverage			
Sentinel site evaluation			
Morbidity survey			
Protocol development			

The family health records proved useful as 50% of the UNAP staff reported visiting households for the first time during the MDA. So strengthening the UNAP–community relationship improved general communications skills within the system. UNAP staff felt good about taking part in a successful health intervention and strengthening the role of community volunteers, and working together with community volunteers. Community volunteers were often then asked to take part in other health activities, such as vaccination campaigns.

In this way, PELF team made a direct contribution to other health programs, such as helping with the malaria outbreak and with health education programs. The mean number of days that any person within the UNAPs spent in the MDA was 3 days per year. This was one question that was asked, because it is often believed that vertical programs take up too much of health workers' time, causing them to neglect their other duties. Thus far, trying to identify any negative impacts, at this stage, was difficult.

#### PELF

- Expansion of coverage from 11 municipalities to the whole SW Region
- Increased recognition and job satisfaction for staff
- Maintained coverage in MDA

#### MDA

- Strengthened use of *fichas*
- Strengthened relationship between UNAPs and community
- 50% of staff reported visiting houses for the first time during MDA
- Strengthened communication skills
- 37% mentioned improving communication skills (e.g., talking to patients, carrying out health education in the community and conducting training)
- Staff felt good taking part in a successful health intervention

- 95% glad to take part in the next MDA
- Strengthened role of community volunteers
  - 90% were pleased with the input of the community volunteers which allowed the job to be done faster (10% not sure)
  - 68% reported using volunteers in other health activities after the MDA (e.g., vaccination campaigns and updating *fichas*)
- Direct contribution of PELF team to other health programs

### Obstacles

#### *First phase integration*

- *Fichas* were disorganized and some UNAP staff lack understanding of their proper use.
- Drug distributors got confused over which houses are within their jurisdiction.
- Dilution of training through cascade system
- Some UNAPs do not have adequate staffing.
- DPS managerial staff try to obstruct MDA process.
- PELF seen as an external organization
- Few hydrocele operations carried out.
- Funding from PI Inc. for lymphedema training did not materialize.

### Strategy

#### *Building on strengths*

#### ***Ability of PELF team to be evolutionary and their commitment to the dual aims of sustaining PELF and strengthening health systems***

- Positive experience of UNAP staff
  - 80% view the MDA as part of their job (vs. 11% who view it as separate project)
  - 88% happy with efforts toward integration so far (0% unhappy)

- 75% viewed taking on more responsibility for the MDA as a good idea (3% didn't)
- Many said it would allow better coordination at the local level
- 81% would be happy to work with lymphedema patients (2% would not be)
- High level of community support
  - High coverage of MDA
  - 87% glad to have taken part in the MDA: it was a job well done, they learned something, they were helping their community and there was a good response from the community
  - 89% would be happy to volunteer working with lymphedema patient
- High level of support from DPS directors who want to be more involve
  - *“Before the LF team was seen as a separate department to the province office, but now we see them as a part of us, very much one of us”*
  - *“At a local level the responsibility of LF elimination is of the province, though the PELF team should stay involved”*
- Opportunities for integration with other health activities
  - 57% carried out other health activities while doing MDA (e.g., updating fichas, informal situational analysis, health promotion)
  - 80% think skin diseases are an important problem in their area (e.g., scabies and fungus infection) but only 10% UNAPs report having any basic training in dermatology

General strength of the program include the ability of the PELF team to learn from experience and its genuine commitment to both the success of the PELF and to strengthening the health system in which they are working. Another advantage was the positive experience of the UNAP staff: 80% saw the MDA as part of their job; only 11% viewed it as a separate project, And 75% said further integration was a good idea, with 81% reporting they were happy to work with lymphedema patients. So although integration of morbidity has not happened yet, there

seems to be a good framework for it, in view of the support from the UNAP system, from which it can be launched.

There is also a high level of support from the community and from province directors, who want to be more involved; there are opportunities for integration with other health activities, such as lymphedema training on skin diseases; 80% of UNAP staff feel that skin diseases are an important problem in their area, but only 10% report having basic training in dermatology. So there appears to be potential for combining training for basic skin treatment and lymphedema.

### Strengthening weaknesses

- Funding
- Drug delivery system
- Morbidity program
  - Only 20% of UNAPs report having training in management of lymphedema
- MDA not in DPS Plan of Action

Funding is a major issue not only in terms of finding it, but also in moving it through the system in a timely fashion. With integration, there are many players involved, requiring a more complex distribution of funds. It is the same as the drug delivery system, which goes from the international level to a local level, with many different organizations and countries involved in moving the drugs through the system. For example, during the last two MDAs, drugs were packaged in the CENCET Office in Barahona at 3:00 am the day before the distribution. Obviously, in a more decentralized system, the drugs need to reach the UNAPs sooner, to allow enough time for packaging and distributing them.

### Conclusion

Based on the study, the morbidity program has not been a negative impact for integration so far. Rather, it has provided an opportunity that can be maximized beyond simply integrating the MDA into the province level.

## DISCUSSION

**Question.** What is the coverage of the UNAPs in the areas of the MDA?

**Response.** Before the MDA was done by the UNAPs, coverage was low. But coverage by the UNAPs is now almost 89%, [and as high as] 100% in some communities.

**Question.** The presentation alluded to possible problems with the prevention level. Is there a reason for any resistance at that level?

**Response 1.** There was resistance in the first year. There has been less in the second year, although it hasn't disappeared completely. At that time, there was a change in government, so all of the province directors were new. Since then, integration workshops have been conducted, which worked specifically with the directors to get them involved and clarify their responsibilities.

**Response 2.** The first reason [for the resistance] is that they did not consider the program to be part of the health system, as program members were working directly with the communities, forming support groups. Initially, 143 support groups were formed, one for each community, each with a planned intervention, in the 11 municipalities. The health system was not yet organized in terms of the UNAPs, so apparently some felt the program was not working with them and considered it an external organization that was using resources that perhaps they wanted (e.g., the *fichas*), so some did not feel obligated to cooperate. Also, at the time of the Regional Health Declaration, some people tried to obtain control of the funds used for the program. The program did not agree to that, and this may also have generated resistance.

**Question.** Is the MDA expected to be incorporated into the Plan of Action at some point?

**Response 1.** There was that intention, and it still exists, regarding the training that will be given this year, but that has been delayed for two or three months due to a lack of financing. Achieving incorporation into the plans of the DPS, to have the plans merge, is part of the process anticipated for this year, which has been delayed.

**Response 2.** In interviews, province directors were asked that question. They said, separately, "No, it is not in the Plan." But there was some implication that they might consider putting it in the Plan later, because no specific issues were presented against doing so. Only one or two province officers said, "That's part of vector control [malaria, dengue, LF]." So it may be possible eventually.

**Comment.** The medication is being administered from the DPS. This year, the program is overseeing the medication, but in the next few years this will also be the responsibility of the DPS; program members will only act as supervisors and to give guidance.

**Response.** That was another interesting observation—the change in the role of the LF team from one of implementation to one of training and consulting. Team members have basically trained themselves in order to be able to change their roles, which was an interesting process to watch.

**Question.** Is there a difference in MDA coverage in areas with UNAPs vs. those without UNAPs?

**Response.** Although there was no UNAP in some areas, groups were created, and because of this there is not much difference in coverage; there was similar coverage with and without UNAPs. But in regard to previous years, when the program did not work with UNAPs at all, significant differences can be seen.

**Comment.** With the UNAP, the program chose the group—the UNAP work team—and they were responsible for medicating all the families. Community volunteers who had worked in previous years and personnel from other NGOs were used to medicate all communities, using the same strategy (house by house) and assigning each family a volunteer (up to 40 families for each).

**Comment.** The PELF program is very integrated, but it is the UNAP that is doing it. The PELF is still working with them to help them in that process. That's the part the program wanted to pass on to the DPS units that are working with the UNAPs.

**Question.** What were the strategies in areas without UNAPs?

**Response.** The program tried to create informal UNAPs, that is, it arranged for the community to provide the personnel for tasks such as promotion and supervision, using basically the same structure that exists in a UNAP. But the UNAPs have both official and volunteer personnel, whereas the informal unit staff was basically all volunteer. But the same strategy is used, that is, in terms of the supervision of the medication (i.e., the fact that they functioned like medicators). In operative terms it was also similar in terms of disbursement of resources. Economic and drug resources and other supplies were given to the supervisor, who passed it on to the medicators.

**Comment.** Everything that's done in this project requires visualizing how to sustain it in country, and like everything else, there is a problem with insufficient resources.

**Question.** What's the estimated number of patients who presented symptoms related to LF?

**Response 1.** That is a significant problem, the amount of patients—the level of demand for services. It is difficult to visualize how many technicians would have to be trained in order to provide the patient care services. The number of patients has to be inferred.

**Response 2.** That's the question that is often discussed at the program meetings: How many need to be treated? To manage a morbidity program, it is necessary to know the number of patients in order to know how to conduct the training in the UNAPs. So this number will have to be estimated. It is hoped that in the coming year the approximate number of patients that need treatment will be mapped.

**Question.** Considering the border with Haiti and the possibility that Haitians carried LF across the border and on to the DOR, would such patients [immigrants] be targeted by the UNAP system, or would they fall outside it?

**Response.** Until now, the system has always worked in the following way, at least regarding primary care: Haiti is considered the "5th province" in the region. In other words, the region really has only four provinces, but Haiti is considered to be part of the region. That's because all patients that cross the border receive care at the primary and even the second and third level.

**Comment.** Regarding cross-border work, one interesting thing came up in the discussion about Pedernales Province: Other infectious disease control programs were working across the border with their colleagues in Haiti. So integrating the PELF more within that province may facilitate some of that cross-border work.



## A Peek at the Windward Islands Research & Education Foundation (WINDREF): Who, Where, When, Why, How?

**Dr. Calum MacPherson, St. George's University, WINDREF**

### Introduction

Dr. Calum MacPherson is a Professor in Parasitology and Dean of Graduate Studies at St. George's University (SGU) in Grenada. He has worked closely with the LF Program in Guyana and is often called upon as an international expert in LF and schistosomiasis. He also has broad work experience with many neglected tropical diseases.

As underscored by the inclusion of the new agenda item in the RPRG meeting agenda—“South-South Cooperation”—collaboration with universities and other academic and research institutions in the Caribbean, Central and South America, and Mexico is a goal of the Regional Program to Eliminate Lymphatic Filariasis (RPELF). To foment that cooperation, PELF members need to have a better understanding of the research and other activities of institutions in the region such as WINDREF.

### Overview

WINDREF is a non-profit charitable trust established in 1992 in Grenada. Its structure is somewhat similar to that of the Emory University organization that runs programs in East Africa. More than 700 medical students from about 60 different countries, many of them LF-endemic countries, come to Grenada to train in their field. Many of these students are looking for potential sites to perform their elective research.

### Mission

WINDREF's mission is to help the Americas region by providing a center of research excellence:

*WINDREF seeks to advance health and environmental development through multi-disciplinary research and education programs. WINDREF strives for program excellence by promoting collaborative relationships between internationally recognized scholars and regional scientists and by adhering to the highest ethical and academic standards in the design and conduct of research.*

Figure 1. Map of Grenada



Two things that are always stressed in the WINDREF graduate program for developing country students are the need for ethics (e.g., institutional review boards, project review, etc.) and how to make effective presentations of research, as so much good research goes unrecognized because the material is not presented effectively.

### Goals

WINDREF's goals are to

- provide a scientific resource center capable of coordinating international

collaborative research of the highest caliber in the areas of medical and veterinary public health, anthropology, ecology, marine and terrestrial biology, and ethics

- provide a first rate academic opportunity to scientists from the Caribbean and around the world offering unique research opportunities to enhance the knowledge and welfare of local and international communities
- conduct applied scientific research for the benefit of community and health development at the local, national, and international level
- share relevant scientific information with local and international communities.

### Programs

Affiliations and collaboration

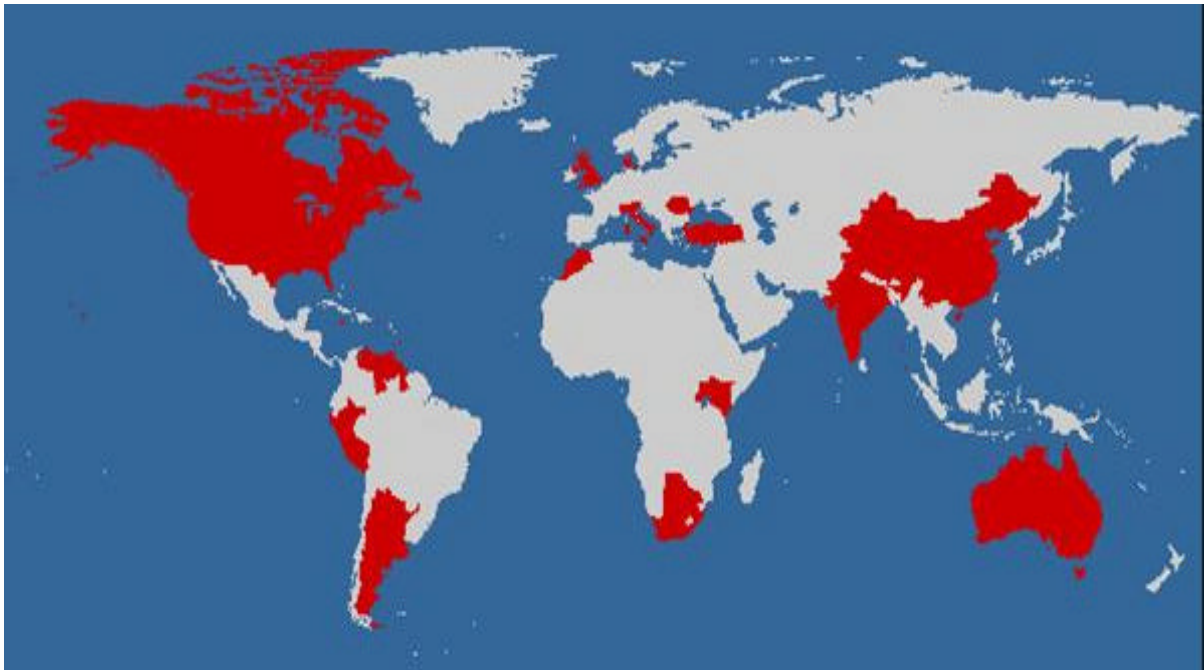
Although it is based on a small island of just 90,000 people, WINDREF has regional offices in the United Kingdom (UK), the United States, and St. Vincent, and will soon be opening a new office in Canada.

WINDREF has a Board of Directors in each of those countries as well as many other parts of the world (see Figure 2). It also has a Scientific Advisory Board and a number of research fellows from different institutions who not only help bring world expertise on different topics to the institution but also add to its academic and scientific rigor.

WINDREF laboratories conduct polymerase chain reaction (PCR) and other basic research, but most institutional research is done in the field. Weekly meetings are held to discuss the ongoing work by students, who must present their research.

WINDREF collaborates with many different countries through its programs, which cover a broad range of research. It also hosts an annual lecture program, which brings experts from around the world (see Table 1). The lecture program helps broaden WINDREF's perspective as well that of the attendees, who may then influence policymakers upon their return to their home countries.

Figure 2. WINDREF research collaboration and affiliates worldwide



**Table 1. Previous annual lecture series speakers**

2000	Sir Kenneth Stuart	“Caribbean Health Research Needs
2001	Prof. Ade Lucas	“International Collaboration for Health Research”
2002	Lord Walton Prof	“A Doctor in the House”
2003	David Molyneux	“Success and Failure in Parasitic Disease Control”

*Research*

WINDREF has worked on many projects on intestinal helminthes at its research facilities in Grenada (see Figure 3) and throughout the Caribbean, and currently has a project in the Dominican Republic (DOR) examining migrant workers from Haiti. It also conducts research on schistosomiasis and lymphatic filariasis (LF), via a number of students, and several projects on non-communicable diseases. Current LF research in Guyana includes master’s (MSc) thesis research

to determine whether LF helps cause poverty when its symptoms become physically obvious. The MSc student is visiting morbidity clinics, selecting patients, and matching cohorts who don’t have the disease but live in the same socioeconomic bracket to try to determine if the onset of the morbidity signs of LF contributed to the poverty. Another student just finished his graduate study project on LF and is returning to a morbidity clinic in Guyana.

**Figure 3. WINDREF research facilities**



**Past research projects**

*Infectious diseases*

- Schistosoma mansoni in St. Lucia
- Hanta viruses
- Chlamydial infections
- HTLV-1 infection in Grenada and St. Vincent

- SIV in the mona monkey
- Dengue
- Intestinal helminthes
- LF in Guyana
- Cystic echinococcosis in Morocco/Uganda
- HIV in Botswana/Guyana/St. Vincent
- Toxoplasma in pregnant women and cats
- Heartworm in dogs
- Rheumatic Fever (see Figure 4)

- Cancer/Diabetes
- Hypertension

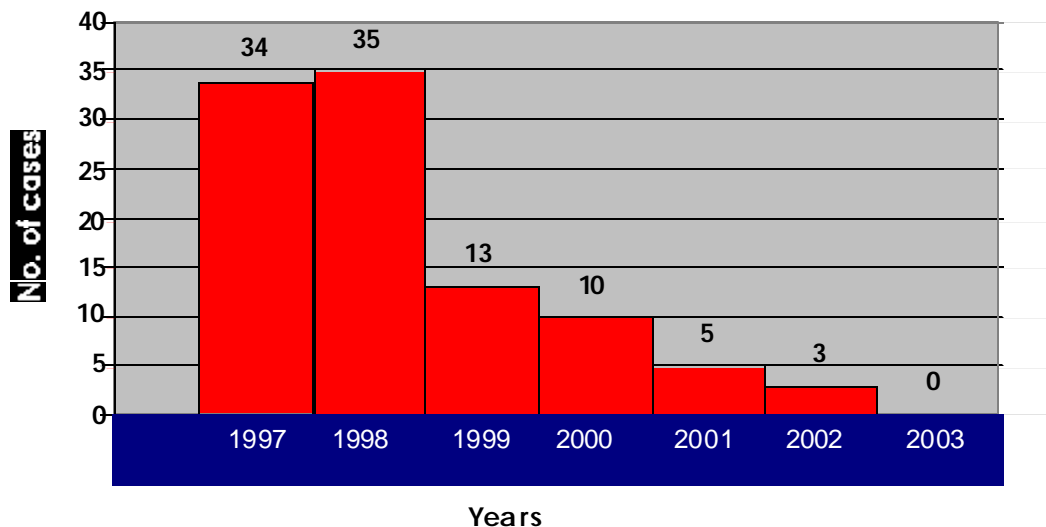
**Current research projects**

- Dengue
- HIV in Botswana
- Zoonoses in dogs
- Emerging Zoonoses in rodents/birds
- LF in Guyana
- CE in Turkey/Romania
- Medicinal Plants
- Genetic Correlates of Addictive Diseases (see Figure 5)
- Humanitarian Recovery Program (see Figure 6)
- Spice Program (see Figure 7)
- Caribbean Environmental Research Initiative (CERI)

*Non-infectious diseases*

- Hyperbaric medicine
- Medicinal plants
- Dry forest conservation
- Sickle Cell Anemia
- Iron Deficiency anemia
- Alcohol consumption
- Sleep apnea

**Figure 4. Annual incidence of rheumatic fever in Grenada, Carriacou, and Petit Martinique (1997–2003)**





**Figure 5. Genetic Correlates of Addictive Diseases Project team**

WINDREF also participates in various public health projects, such as the Water Restoration Project (see Figure 8).

**Figure 6. Dr. Mathias Lorenz and the Spice Program research team**



**Figure 7. Humanitarian Recovery Program: WINDREF/SGU team**



**Figure 8. Water Restoration Project team**



## Staff

### *Board of Directors*

- UK
  - Lord Soulsby of Swaffham Prior (Chairman; see Figure 9)
  - Sir Kenneth Stuart
  - Sir Kenneth Calman
  - Dr. Richard Summerfield
  - Dr. Keith Taylor
  - Dr. Calum MacPherson (*ex officio*)
- USA/Grenada
  - Dr. Keith Taylor (President)
  - Dr. Calum MacPherson (Vice President)
  - Ms. Margaret Lambert (Secretary/Treasurer)
  - Dr. Alan Pensick
  - Mr. Trevor Noel
- St. Vincent
  - Dr. Ed Johnson (Chairman)
  - Sir Frederick Ballantyne

### *Scientific Advisory Board*

- Dr. John David (Harvard University, USA)
- Sir Frederick Ballantyne (St. Vincent)
- Dr. James Hospidalis (Caribbean Epidemiology Centre [CAREC], Trinidad)
- Dr. Thomas Meade (UK)
- Prof. Sir Kenneth Stuart (UK)
- Dr. Ed Fischer (Washington, DC)
- Dr. S.M. Swaminathan (India)
- Prof. Sir Malcolm MacNaughton (UK)
- Dr. Keith Taylor (WINDREF/SGU)
- Dr. Calum MacPherson (WINDREF/SGU)
- Dr. John Zabriskie (Rockefeller Foundation/USA)

**Figure 9. Baron Soulsby of Swaffham Prior, 5th Annual WINDREF Lecturer: (“Zoonoses old and new: The price of freedom is eternal vigilance”)**



Lord Soulsby is the institution's only veterinarian. He has worked on neglected diseases such as parasitic xenosis and has a wide range of expertise, particularly in cysticercosis and hidatic diseases. He is also a great advocate for the LF program.

### *Senior Research Fellows*

- Dean Johnson (Kingston Medical College, St. Vincent)
- Dr. Leslie Ramsammy (Guyana Ministry of Health [MoH])
- Dr. Duane Gubler (Director, Centers for Disease Control and Prevention [CDC]/Fort Collins)
- Dr. Larry McCrorey (Vermont University)
- Dr. Stephen Morse (Columbia University)
- Dr. Stanley Weiss (University of Medicine and Dentistry of New Jersey)
- Prof. Ruth Milner (Vancouver Hospital)
- Dr. Paul Garner (Liverpool School of Tropical Medicine [LSTM])
- Dr. Mary Glenn (Humboldt University)

### *Research fellows*

- Dr. Glennis Andel
- Dr. Michael Bumbery
- Dr. Orazio Giliberti
- Dr. Svetlana Kotelnikova
- Dr. Barrymore McBarnette
- Dr. Theresa McCann

- Dr. Craig McCarty
- Dr. Shanti Singh
- Dr. Shamdeo Persaud
- Dr. Zuri Amuleru Marshall
- Dr. Clare Morall

*Research Scientists*

- Sumita Asthana
- Keith Bensen
- Vamsi Guntur
- Prachee Jain
- Erik Lacy
- Michael Nillas
- Andre Panagos
- Mr. Alan Rhoades
- Christopher Skaff
- David Steinberg
- James Tsai
- Arthur Tutela
- Frank Van Natta
- Colleen Wunderlich
- Rae Connolly

- John McCormack
- Sandeepany Pulim
- Ru-Amir Walker
- Sven Hida
- Ajaz Khan
- Laura Robinson
- Rick Lehman
- Sean Ramsammy
- Scott Forman
- Ella Cameron
- Anthony Junck
- Nicholas Caputo
- Yolanda Ng

**Publications**

- 11 Annual Reports
- 2 books, 6 book chapters
- 30 papers in international journals
- 36 minor publications
- 56 abstracts presented in 24 international conferences



## Funding

At the GAELF Annual Meeting in Cairo (GAELF3), someone in the Global Program to Eliminate Lymphatic Filariasis (GPELF) said that funding is everybody's responsibility. This concept is passed on to all students who come through WINDREF, as 90% of them go on to practice in the United States, and many of them may go into politics and become policymakers. It's crucial to convey to the next generation of policymakers that neglected diseases are important, that there are ways of addressing them, and that we should all try and make a difference.

### *Collaboration*

WINDREF is happy to collaborate in fundraising in whatever way it can (e.g., in writing grants, or in using its links with various European institutions). Support can be solicited from its staff and associates, to help look for grants or try to work through governments and various agencies, industries, or individuals, and its board members, who are encouraged to make donations. Among WINDREF's alumni, there are about 5,000 physicians, and they are encouraged to contribute to the institution's mission. For example, more than US\$1 million was raised to fund a relief effort after Hurricane Ivan (see Figures 10–12). Even more funding could be raised if these physicians were galvanized to try to make a difference in the area of neglected diseases. There are always opportunities for funding for universities if a concerted effort is made to organize fundraising events and to solicit support from trusts, foundations, government agencies, industry, individuals, and alumni.

Figures 10–12. Hurricane Ivan destruction



## Social mobilization

Public perceptions of the relative importance of a disease can be calibrated by the number of people who show up at the meetings. Information dissemination can help increase awareness of the disease, so it's important to get research output into the newspapers to grab the attention of students and get them to participate. Graduate programs are another good target for information dissemination; understanding of the disease changes quickly, so graduate courses need to be updated accordingly to provide accurate information to the students (e.g., the cost of LF morbidity is probably going to be inaccurate in a printed textbook).

## Opportunities to contribute

Opportunities for collaboration with WINDREF include

- sharing research interests and publication information
- developing collaborative grants and graduate-level courses
- supervising graduate projects.

## DISCUSSION

**Comment.** It's wonderful to see, on a small island that is not widely known, such a research institute working on so many neglected tropical diseases, with so many resources. Colleagues from CPqAM (Aggeu Magalhães Research Center; *Centro de Pesquisas Aggeu Magalhães*), the Dermatology Institute (*Instituto Dermatológico de Cirurgia de la Piel*; IDCP), and other groups attending this meeting that work in academia and research, as well as the national program managers, should take the time to speak with Dr. MacPherson about the possibility of developing cooperative research or training with WINDREF. This helps foster South–South cooperation, which in turn helps sustain the national programs.