Evaluating the Impact of Medical Donation Programs: Report of Findings from the Survey of Program for Quality Medical Donations Member Organizations

Submitted by
Andy Stergachis, PhD,
Alisa Jenny, MPH,
Meng Li, ScM
Global Medicines Program
University of Washington

October 16, 2015

Acknowledgements

The authors acknowledge with gratitude the contributions of the PQMD members and staff who provided support for this study. Special thanks is extended to Elizabeth Ashboune, Myron Aldrink and Christine Funk, whose guidance and input has been invaluable. We also extend thanks to Professor Luc Van Wassenhove for his thoughtful review and comment on the survey questionnare. Finally, we extend thanks to each of the PQMD member organizations who responded to the survey and provided supplemental information and materials for this study.

While this report benefited greatly from the contributions of the individuals listed above, final responsibility rests with the authors.

Contents

Executive Summary

Donations of quality drugs and other medical products as well as training and other supportive services can be a key component to improving access to medicines in low- and middle-income countries. The timely, rigorous evaluation of donation programs can help organizations understand and strengthen their impact as well as strengthen the business case for the provision of aid by their organizations. The PQMD Guidelines for Quality Medical Product Donations and the WHO Guidelines for Medicine Donations both include sections on monitoring and evaluation of donation programs and express the need for evaluating the effectiveness, efficiency and adequacy of donation programs. However, little is known about the scope and level of detail of evaluations performed by and the use of metrics conducted by PQMD members. Since the ability to conduct a rigorous impact evaluation is heavily dependent on the type and the quality of the data available, there is a need to better understand what data PQMD member organizations currently collect, which will help guide future evaluations of medical donation programs.

The 2015 PQMD Member Survey was developed by the University of Washington Global Medicines Program in collaboration with the Research, Data & Impact Committee (RD&I) of PQMD. The objective of this study was to document PQMD member organizations' past, present, and planned evaluations of their donation programs, with an emphasis on outcomes or impact. The survey collected information on member organizations' characteristics such as years of involvement in medical donations and information on their major medical donation programs such as products donated, geographical regions targeted, training, monitoring, and impact evaluation conducted as part of the program. Representatives of all 36 member organizations of PQMD were invited to participate in the survey.

Twenty-four out of 36 organizations (67% response rate) completed the survey, providing information on a total of 33 major medical donation programs. Twenty-two organizations reported having an internal policy on medical donations. Nine out of 24 (38%) organizations reported having a publicly available external policy on medical donations and their responses were validated by researching their websites.

Thirty-two out of 33 donation programs are currently ongoing. The goals of these donation programs ranged from donating medicines, equipment, and funding to populations in need, providing direct care to patients, addressing rare diseases and diseases of socioeconomic importance, to educating healthcare professionals, volunteers, technicians, and patients, managing supply chains, and conducting research. Sub-Saharan Africa and Latin America were the two regions most frequently targeted by the donation programs in this study. Donations consisted of a wide range of medical products as well as services. Medical devices, anti-infectives, analgesics, and medical supplies were among the most frequently donated products.

Sixteen out of 33 (48%) donation programs reported having conducted training as a part of the programs. Trainings were commonly provided in the topic areas of disease diagnosis and treatment, nursing skills, maternal and neonatal care, pharmaceutical products usage, mass drug administration, waste management, healthcare facility management, supply chain management, health worker safety, application for drug donations, and program monitoring and evaluation.

Twenty-six out of 33 (79%) programs reported having conducted monitoring during the implementation of the program. Monitoring was mostly commonly conducted by the organization's local office, its donation department at head quarter, external NGOs, or collaboratively between the above-mentioned groups. Monitoring results were reported to be disseminated both internally and externally, and were often used to develop recommendations and next steps for the future.

Respondents reported that 10 out of 33 (30%) donation programs have been evaluated for their impact, among which nine (27%) generated what respondents believed were useful findings. Key barriers to conducting impact evaluations for medical donation programs were lack of technical staff and lack of funding. Seven out of the 10 impact evaluations in this survey were reported to cost less than or equal to $50,000. Groups who conducted the evaluations included internal evaluation department, local and international universities, recipient health facilities, and external NGOs.

Metrics chosen for impact evaluations depended on the nature of the medical donations. Some examples of reported metrics were quantity of donation, number of patients receiving and benefiting from the treatment, improvement in knowledge and skills, usefulness of training, deficits in healthcare services, cost, and budgets of Ministry of Health and participating health facilities.

Findings from impact evaluations were reported to have been disseminated to key stakeholders and the general public, and were often used to improve the program, set the stage for establishing future partnerships, demonstrate continual improvement of internal process and commitment to patients and healthcare, and improve donor-recipient relationships and encourage more and better medical donations. Some impact evaluations were not found useful because they failed to obtain information on various important measures or they lacked continuity due to funding issues. Impact evaluations that meet stakeholders' needs were often reported to be very costly, and some organizations indicated they could not afford such impact evaluations. The most commonly cited areas that PQMD member organizations would like to engage in for future impact evaluations included morbidity and mortality, quality of life, lives save, and supply chain strengthening.

Acronyms

AWP - Average Wholesale Price

CO - Corporation

FMV – Fair Market Value

GMP – Global Medicines Program

MOH – Ministry of Health

NGO – Non-Governmental Organization

PQMD - Program for Quality Medical Donations

RD&I- Research, Data and Impact Committee

UW – University of Washington

WAC - Wholesale Acquisition Cost

WHO – World Health Organization

Background

Access to essential medicines and other medical products is core to improving the health outcomes of people worldwide. Maintaining a reliable supply of essential medicines and other medical products can save lives, reduce morbidity, and improve quality of life. Unfortunately, poor availability of pharmaceuticals and other medical products has been well-documented in many low- and middle-income countries (LMIC) where health systems, including supply chains, are commonly suboptimal. Studies have shown a lack of availability of essential medicines in LMICs.[1,2,3,4,5] Moreover, poor quality medicines are a global health problem, particularly in LMICs, resulting in the potential for treatment failure, development of antimicrobial resistance, and serious adverse drug reactions, increasing healthcare costs and undermining the public's confidence in healthcare systems.[6,7]

The situation of poor access to medicines and other medical products is further compounded when countries are struck by natural disasters, such as typhoons, hurricanes, tsunamis or earthquakes, which put an even greater strain on weak health systems. Among the top 10 countries in terms of disaster mortality in 2013, sfive countries are classified as low income or lower-middle income countries.[8] Donations of quality drugs and other medical products and training and other supportive services can be a key component of medical relief efforts, and represent a global response to countries affected by disasters.[9]

The World Health Organization issued stricter guidelines for emergency medical donation programs after it was revealed donations to the war torn areas of Bosnia-Herzegovina and Croatia were sent inappropriate, poor quality and expired drugs .[10,11, 12,13]Organizations are also looking beyond cash and in-kind donations to longer-term disaster response partnerships with humanitarian organizations. Such closer collaboration may also help improve disaster preparedness and even contribute to disaster risk mitigation.[14]

In response to these needs and concerns, certain nongovernmental organizations (NGOs) and many pharmaceutical and medical supply manufacturers are involved in performing various aspects of donation, including delivery and/or distribution of medical products and devices, and in-country training and

coordination activities. Donation programs can span three phases on a continuum of needs and situations: 1) emergency and disaster relief programs, 2) addressing needs arising from stock-outs in routine programs, and 3) donations to fulfill chronic unmet needs for under-resourced health systems. Moreover, there has been a recent increase in disease-specific donations of medicines, including those intended for neglected tropical diseases (NTD).[15,16] Internationally recognized guidelines exist for drug donations and health care equipment made in emergency situations as well as part of developmental aid. [17,18] The World Health Organization (WHO) Inter-Agency Guidelines for Drug Donations includes a section on monitoring and evaluation of drug donation programs.[17]

Recognizing the importance of evaluating the impact of medical donation programs, results from some of the larger donation programs have published in the peer-reviewed literature.[19,20,21,22,23] One of the best known examples is the Mectizan® Donation Program by Merck for river blindness.[24,25] Through this program, over a million doses of ivermectin has been distributed free of charge to some 28 countries in Africa, six countries in Latin America, and in Yemen.[26] There are a few additional reports of the effects of drug donation programs in the form of monographs.[27,28,29] And there are a few published examples of economic evaluations of medical donation programs.[30,31,32,33]

The Partnership for Quality Medical Donations (PQMD) developed the PQMD Principles and Standards to inform and guide medical donation practices.[34] Within these Principles and Standards is a section on evaluation that expresses the need for evaluating donations to measure the effects of donations, both long- and short-term, and to learn from successes and any possible missteps. PQMD has established the Research (Data & Impact) Committee, in part, in order to strengthen efforts to evaluate the impact of medical donation programs among its member organizations. Moreover, the main focus of the 2013 PQMD Education Forum was evaluating the impact in health programs.[35] Several examples of program evaluations by member organizations were presented at the 2013 PQMD Education Forum. Additionally, at the Forum there were general expressions of interest by many attendees and PQMD leadership for strengthening the understanding

of the impact of drug donation programs. Evaluating the impact of donation programs can help organizations make their business case for the provision of aid by their organizations.

PQMD members collect some level of information about their donation programs and related activities, but the scope and level of detail is not known, let alone standardized. Before embarking on a rigorous evaluation of the impact of medical donation programs, there is a need to understand what data are currently available from member organizations, and to utilize this information to recommend approaches for evaluating the health and health systems impact of medical donation programs.

The ability to conduct a rigorous impact evaluation is heavily dependent on the type and the quality of the data available (Figure 1). The data collected as part of a medical donation program can be classified based on whether they describe the resources used, the population targeted, or the outcome observed at the program. Administrative records, client records, or service or training statistics are often collected as part of program monitoring and evaluation. An impact evaluation is defined as measuring the long-term change at the population-level that can be directly attributed to a program. Metrics such as resources contributed, whether it be human, financial or material, and money spent are valuable to evaluating medical donation programs, but these data on their own do not provide measurements of impact. In addition to methodological considerations, other factors that influence the rigor of impact evaluations include the availability and allocation of requisite human and financial resources to conduct evaluations.

Objective

The objective of this study was to document PQMD member organizations' past, present, and planned evaluations of their donation programs, with an emphasis on outcomes and impact.

Methods

Survey instrument and participating organizations

A survey was designed to collect information on characteristics of PQMD member organizations and their donation programs, with an emphasis on monitoring and impact evaluations, if any, conducted by the organizations. Organizations were asked to provide information on years of involvement in medical donations, whether or not there is a person dedicated to medical donations, and whether or not there are internal as well as publicly available external policies in place on medical donations. The study team validated the answers on external policies through examining the responding organizations' websites.

Organizations were then asked to name and provide information on at least one up to three of their major donation programs. Questions on donation programs included when the program was initiated, reasons for being considered a major donation program, types of events targeted by the donation, types of products donated and their estimated value, geographical regions and number of countries covered, coordination at the recipient country, form and content of training provided as part of the donation, and external groups involved in providing the training.

Questions on monitoring and impact evaluations included the planning of monitoring and impact evaluations, cost of impact evaluations, usefulness of impact evaluations, metrics used in impact evaluations, dissemination of results from monitoring and impact evaluations, and external groups involved in conducting monitoring and impact evaluations. The survey also asked about the areas PQMD member organizations would like to engage in for future impact evaluations.

Four organizations pilot tested the web-based survey instrument before it was distributed to the full membership of PQMD. Modifications to the survey instrument were made based on feedbacks from the pilot test. All 36 PQMD member organizations, consisting of 19 corporations (CO) and 17 non-governmental organizations (NGO), were invited to participate in the final survey.

Data collection and statistical analysis

Data were collected through the University of Washington Catalyst Web Tools. All responses submitted by participating organizations were exported and analyzed by the study team in Microsoft Excel 2011®. Responses to multiple choice questions were summarized in frequencies. When appropriate, responses were stratified by the type of organization (CO vs. NGO). For open-ended questions, key concepts were identified from the narrative and described qualitatively. This study was determined to be exempt from institutional review by the UW Human Subjects Division.

Results

Characteristics of participating PQMD member organizations

To-date, twenty-four out of 36 organizations have completed the survey. The response rate of this study was 67%. Characteristics of organizations that responded are summarized in Table 1. Among the 24 organizations, 12 were COs and 12 were NGOs. Twenty out of 24 reported having been involved in medical donations for over 20 years. Twenty reported having a person dedicated to managing medical donations. Twenty-two reported having an internal policy on medical donations, among whom 16 reported that the policy was available to all internal staff. Nine out of 24 (38%) organizations reported having a publicly available external policy on medical donations and their responses were validated by researching their websites. COs and NGOs that responded to the survey were comparable with respect to the characteristics measured in the survey.

Characteristics of donation programs

In this survey, participating organizations provided information on a total of 33 donation programs, considered by respondents to be major donation programs. Basic characteristics of these donation programs are summarized in Table 2. Thirty-two out of 33 donation programs are currently ongoing. Fourteen were initiated before 2005, while 10 were started during the last five years. The top reasons cited by respondents for being considered as a major donation program included addressing a major unmet need, having the most units donated, and of strategic importance to the organization. The goals of these donation programs ranged from donating medicines, equipment, and funding to the populations in need, providing direct care to patients,

addressing rare diseases, to educating healthcare professionals, volunteers, technicians, and patients, managing supply chains, and conducting research.

Sub-Saharan Africa and Latin America were the two regions most frequently targeted by the donation programs in this study (Figure 2). Thirteen out of 33 donation programs targeted less than or equal to five different countries. Seven targeted over 50 countries. Recipient country coordination was usually through local hospitals and medical professionals, host-nation Ministry of Health, regional or country office of the organization, and host-nation NGOs.

Donations consisted of a wide range of medical products as well as services. Medical devices, anti-infectives, analgesics, and medical supplies were among the most frequently donated products. The estimated fair market value (FMV) for the donated products ranged from under one million to over 50 million US dollars (USD). Nine programs donated products that were worth more than 50 million USD. The most common estimation method for the FMV was the wholesale acquisition cost (WAC), with 15 programs reporting having used this estimation method. Some organizations also reported using internal formulas or list prices to calculate the FMVs for donated products.

Training

Sixteen out of 33 (48%) donation programs reported having conducted training as a part of the programs (Table 3). Trainings were commonly provided in the topic areas of disease diagnosis and treatment, nursing skills, maternal and neonatal care, pharmaceutical products usage, mass drug administration, waste management, healthcare facility management, supply chain management, health worker safety, application for drug donations, and program monitoring and evaluation. The format of trainings usually consisted of classroom training, proctorship, or virtual training. External groups involved in providing the training include donor partners, local and international universities, US-based medical research groups, host-nation Ministry of Health, international organizations, and external NGOs.

Monitoring

Twenty-six out of 33 (79%) programs reported having conducted monitoring during the implementation of the program (Table 3). Monitoring was mostly commonly conducted by the organization's local office, its donation department at head quarter, external NGOs, or collaboratively between the above-mentioned groups. Monitoring plans for the donation programs reported in this survey were developed at various phases: some were developed during the inception of the program, some during the program, and some after products were donated or distributed. Monitoring results were reported to be disseminated both internally and externally, through periodic reports and meetings with key stakeholders, end user report, websites and other social media, and presentations at forums and conferences. In some instances, case studies were presented and stories were conveyed. In others, statistical data were shared with stakeholders periodically. Respondents noted that monitoring results were often used to develop recommendations and next steps for the future.

Impact evaluations

Respondents reported that 10 out of 33 (30%) donation programs have been evaluated for their impact, among which nine (27%) generated what respondents believed were useful findings (Table 3). Key barriers to conducting impact evaluations for medical donation programs were lack of technical staff and lack of funding. Seven out of the 10 impact evaluations in this survey were reported to cost less than or equal to $50,000. Groups who conducted the evaluations included internal evaluation department, local and international universities, recipient health facilities, and external NGOs. Evaluation plans were developed at various phases of the program; some were developed during the inception of the program, some during the program, and some after products were donated or distributed.

Metrics chosen for impact evaluations depended on the nature of the medical donations. Some examples of reported metrics were quantity of donation, number of patients receiving and benefiting from the treatment, improvement in knowledge and skills, usefulness of training, deficits in healthcare services, cost, and budgets of Ministry of Health and participating health facilities.

Findings from impact evaluations were reported to have been disseminated to key stakeholders and the general public through periodic reports, end user reports, periodic meetings, presentations at forums and conferences, websites and other social media, and scientific publications. Findings were often used to improve the program, set the stage for establishing future partnerships, demonstrate continual improvement of internal process and commitment to patients and healthcare, and improve donor-recipient relationships and encourage more and better medical donations. Some impact evaluations were not found useful because they failed to obtain information on various important measures or they lacked continuity due to funding issues. Impact evaluations that meet stakeholders' needs were often reported to be very costly, and some organizations indicated they could not afford such impact evaluations. The most commonly cited areas that PQMD member organizations would like to engage in for future impact evaluations included morbidity and mortality, quality of life, lives save, and supply chain strengthening.

Discussion

The findings from this survey show that PQMD member organizations provide a broad range of medical donations, targeting a wide range of public health issues and events. Nearly 80% of the donation programs in this study reported having conducted some level of monitoring and evaluation. However, the types of metric used in reported evaluations varied greatly. Units of donation and number of patients receiving the donation were often reported to be tracked in an ongoing fashion. However, a program's impact at the population level was infrequently evaluated. When a program was evaluated, metrics chosen depended on the nature of the medical donations, and some epidemiological and economic outcomes were reported to have been used by some member organizations. Most of the impact evaluations reported in this study were relatively small in scale, costing under $50,000. Some organizations indicated that with limited resources they could only afford small-scale evaluations of the donation programs, although these evaluations may not meet stakeholders' needs well. Lack of technical staff and lack of funding were cited as key barriers to conducting a rigorous impact evaluation, despite of a considerable amount of interest in it among PQMD member organizations. Member

organizations reported collecting a broad range of metrics as part of their monitoring and evaluation efforts. Most of these data are collected at the program-level since they are generally more readily available.

While the survey provides a baseline assessment of present-day and planned evaluations, there were some limitations to this survey. The donation programs described in this report are not representative of the full range of donation programs that PQMD member oversee, and thus should not be generalized as such. The survey was limited to asking about major donation programs, and the judgment of whether a donation program can be considered a major one was left to the respondents. However, we have documented the reasons for considering a medical donation program a major one, and the top cited by respondents were: addressing a major unmet need, having the most units donated, of strategic importance for the organization, etc. Although donation programs from this study cannot represent all past and ongoing donation programs conducted by PQMD member organizations, they are likely the ones that were monitored the most closely, evaluated the most thoroughly, and can provide the most valuable experience for the development of a framework for impact evaluations. Finally, while a 67% response rate is generally recognized as acceptable, a higher response rate would have provided more confidence in the generalizability of our results and reduced the likelihood of non-response bias.

Recommendations

Based on the findings from the survey, we present the following recommendations for strengthening the evidence base for evaluating the impact of medical donation programs:

Develop and advocate for validated, consistent metrics for medical donation programs. Selecting appropriate metrics is critical to understanding how a medical donation program is functioning and the effect it has on has on the population. The use of validated, consistent metrics at every stage of the medical donation program will help facilitate the effect of medical donation programs conducted by the same or different organizations. Member organizations should identify where their current monitoring and evaluation activities fit within the range of metrics before planning an impact evaluation (see Appendix B for a list of metrics reported by respondents to the survey). When developing metrics, organizations should be specific about what is being measured and avoid the use of subjective terms that are difficult to measure and not well-understood. Moreover, better process indicators can provide deeper visibility into the supply chain and up to the end-beneficiaries. This could include metrics such as units distributed. Knowing more about the inputs, processes and outputs will position organizations to better measure outcomes and impact.

Develop and utilize a common framework for impact evaluation of medical donation programs. PQMD member organizations will likely benefit from use of a common framework for the design, implementation, and analysis of impact evaluations. The lack of technical staff to evaluate the impact of their medical donation programs was cited by many organizations as the key barrier to conducting a rigorous impact evaluation that meets the stakeholders' needs. The development of such framework should be a collaborative effort among PQMD member organizations, with the involvement of other key stakeholders, and draw upon the experience of those who have conducted evaluations.

Develop and advocate for sound data collection and analysis plans. A sound data collection and analysis plan covering both process indicators and other metrics will make sure necessary data is available to evaluate the impact of the donation program. Data for process indicators should come from the program itself while impact

evaluations require population-level data. Organizations should select indicators and metrics that best fit the nature and stage of the program, rather than collecting all indicators and metrics. Moreover, modeling and decision tree based analysis could answer the question "what would have happened without the donation" also known as the counterfactual. This should be explored further as it may help create impact evaluation methods that are less resource intensive but still valuable as compared to those that rely on extensive field data collection. Consider establishing a process whereby technical assistance and training is offered to PQMD member organizations who wish to strengthen the rigor of evaluations of their medical donation programs.

Finally, evaluation should not be an end in itself but rather a means to an end. Factors in deciding when to do an impact evaluation should include the need to demonstrate the impact to key stakeholders, the availability of resources to collect and analyze necessary data, and the stage of the program. Findings from well-conducted impact evaluations can help with making decisions about programs, practices and policies.

Tables

1. Characteristics of participating organizations	Frequency		
	Total (N=24)	CO (n=12)	NGO (n=12)
Years of engagement in medical donation			
>=20 years	20	9	11
A person dedicated to medical donations			
Yes	20	10	10
Internal policy on medical donations			
Yes	22	11	11
Available to all internal staff	16	9	7
External policy on medical donations			
Yes	9	5	4

2. Characteristics of donation programs	Frequency (N=33)
Year program was initiated	
2005 and before	14
2006 – 2010	7
2011 – 2015	10
Reasons given for being considered a major donation program	
Addressed a major unmet need	25
Has the most units donated	17
Of strategic importance to the CO or NGO	17
One of the longest	13
One of the most costly	7
Has the most employees work on it	7
Other §	5
Types of events targeted by donation	
Ongoing unmet needs in low-resource settings	22
Strengthening or rebuilding healthcare infrastructures	13
Natural disaster	9
Epidemics	8
Complex emergencies, conflict, war	6
Displaced populations, refugee support	6
Famine, food insecurity	2
No specific types of events	1
Regions targeted by the donation program	
Sub-Saharan Africa	21
Latin America	15
Central Asia	9
Southeast Asia	9
Caribbean	8
North America	8
Middle East	8
South Asia	8
Asia Pacific	6
East Asia	5
North Africa	5
Eastern Europe	4
Oceania	4
Western Europe	2
Central Europe	2
Australia and New Zealand	1
Total number of countries targeted by the program	
$\leq$5	13
6-10	3
11-20	3
21-50	4
$\geq$50	7
Types of products donated	
Medical devices, medical equipment	23
Anti-infectives	14

Medical supplies	13
Analgesics	11
Nutritional	10
Respiratory	9
Skin	9
Gastro intestinal	7
Vaccines	7
Oncology medications	6
Oral health	5
Diabetes medications	3
Vector control	2
Other ¶	3
Estimated fair market value (FMV)	
≥$50,000,000	9
$25,000,000 - $49,999,999	6
$5,000,000 - $24,999,999	5
$1,000,000 - $4,999,999	6
<$1,000,000	3
Evaluation standard for FMV	
Wholesale acquisition cost (WAC)	15
Average wholesale price (AWP)	4
Other ‡	14
Recipient countries coordination	
Local hospitals and medical professionals	20
Host-nation Ministry of Health	18
Regional or country office of the CO or NGO	17
Host-nation NGOs	16
US-based NGOs	4
International organizations	4
Other bilateral organization	1
No external coordination	1

§ Other reasons that were mentioned in the responses were: combining equipment and clinical training, maintaining customer relations, strengthening healthcare system, historical involvement with the disease, and involving a reliable, capacity building partner.

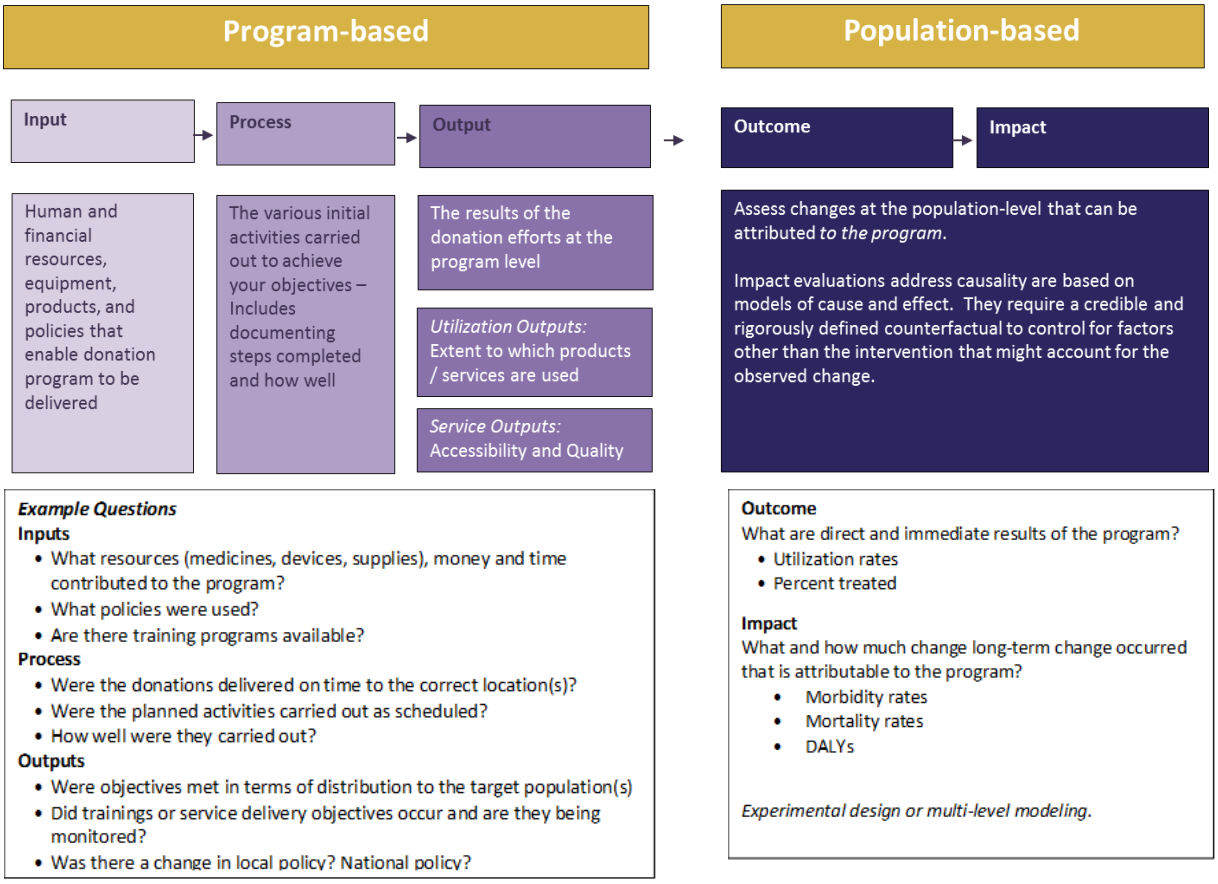
¶ Other types of donated products were: medicines for cardiovascular diseases, medicines for mental illnesses, ophthalmic medicines, and enzyme replacement therapies for rare diseases.

‡ Some organizations used internal formulas or list prices to calculate the FMVs for donated products

3. Training, monitoring, and impact evaluations	Frequency (N=33)
Training conducted as part of the donation program	
Yes	16
Program monitoring conducted	
Yes	26
Phase when monitoring plan was developed	
Inception of the program	13
During the program	11
After products were donated or distributed	12
Impact evaluations conducted	
Yes	10
Ever used the findings from the impact evaluation	9
Phase when impact evaluation was developed	
Inception of the program	6
During the program	6
After products were donated or distributed	4
Cost of impact evaluation	
≤$50,000	7
$50,001 - $100,000	0
$100,001 - $250,000	2
$250,001 - $500,000	0
>$500,000	1
Reasons for not conducting impact evaluations	
Lack of technical staff to conduct impact evaluation	8
Lack of funding	6
Lack of donor interest	2
Lack of CO or NGO interest	3
Areas would like to engage in for future impact evaluations	
Morbidity and mortality	13
Quality of life	13
Lives saved	12
Supply chain strengthening	10
Logistics	7
Recipient government coordination	7
Economic evaluations	6
Workforce development	5
Response time	2
Disability adjusted life years	2
Not currently engaged	5

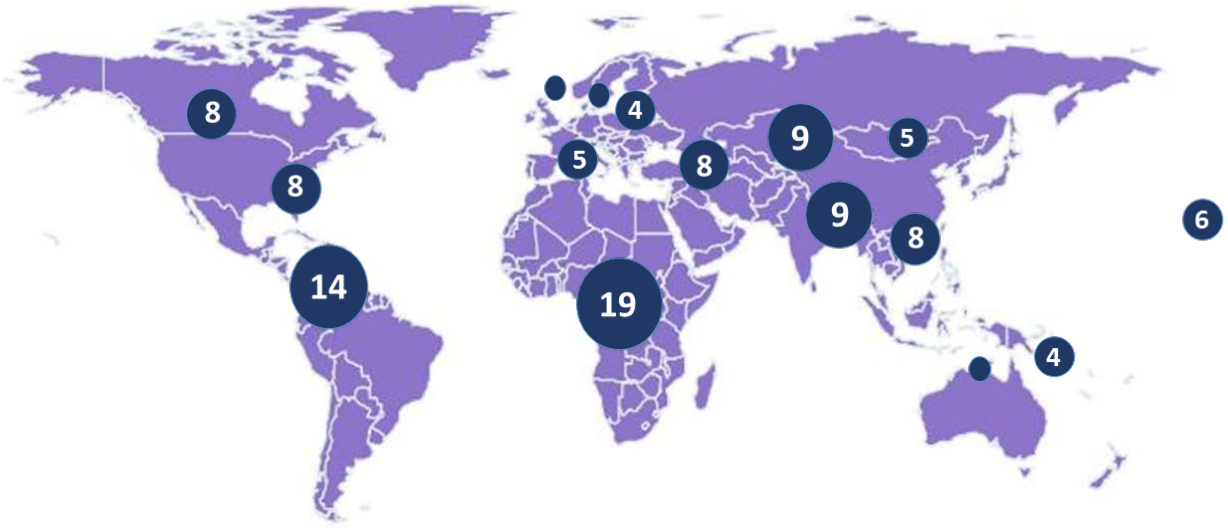
Figures

A. Framework for Measuring Impact of Medical Donations



B. Number of Programs per Region

This figure shows the number of programs reported by PQMD member by region.



Appendices

A. Survey

Overview of the survey

Thank you very much in advance for participating in the UW-PQMD Member Survey 2015. In this survey, we will be asking about your corporation's or non-governmental organization's general policies on medical donation programs and certain practices of your specific programs. There is an emphasis on understanding to what extent evaluations of medical donation programs have been conducted, are presently underway, and/or are being planned. This survey should require approximately 30 minutes to complete. Again, thank you in advance for your time.

Background and significance

Donations of quality drugs and other medical products and training and other supportive services can be a key component of improving access to medicines in low- and middle-income countries. Timely, rigorous evaluation of the impact of donation programs can help organizations understand and strengthen the impact as well as make their business case for the provision of aid by their organizations.

The Partnership for Quality Medical Donations (PQMD) developed the PQMD Guidelines to guide medical donation practices. Within these 2015 Guidelines is a section on evaluation that expresses the need for evaluating donations to measure the effects of donations, both long- and short-term, and to learn from successes and any possible missteps. The World Health Organization (WHO) Inter-Agency Guidelines for Drug Donations also includes a section on monitoring and evaluation of drug donation programs.

Despite these calls for evaluating the impact of medical donation programs, few published examples exist. Little is known about the scope and level of detail of information collected by PQMD members on their donation programs. The ability to conduct a rigorous impact evaluation is heavily dependent on the type and the quality of the data available. Therefore, there is a need for PQMD to understand what data are currently available from its member organizations to guide future evaluations of the impact of medical donation programs.

This web-based survey was developed by the University of Washington Global Medicines Program, in collaboration with the Research, Data & Impact Committee (RD&I) of PQMD, to understand what information has been collected by PQMD member organizations on their donation programs and related activities. Questions included in the survey emphasize the monitoring and evaluations of donation programs that have been previously conducted, are presently underway, and/or are in the planning stages. Findings from this survey will guide the development and potential standardization of meaningful metrics used by PQMD member organizations in assessing their medical donation programs.

Data confidentiality

The information you provide in this survey will be treated as strictly confidential. The University of Washington and PQMD arrangement is guided by a mutual non-disclosure agreement. All data obtained will be stored on a password-protected computer, accessible only by study personnel. Personally identifiable (including organizational identifying) information will be kept separately on a secure password protected computer. Results will only be published in aggregate or group format.

Section A – In this section, we are going to ask you about general information on the corporation (CO) or non-governmental organization (NGO) and policies on medical donation programs.

1. Please provide your

a. Name _____
b. Position _____
c. Name of CO or NGO _____
d. Street address _____
e. City _____
f. State _____
g. Zip/Postal code _____
h. Email address _____
i. Office phone number _____

2. How long has your CO or NGO been engaged with medical donations?

a. Less than or equal to 5 years
b. 6-10 years
c. 11-15 years
d. 16-20 years
e. More than 20 years

3. Is there a person or a position at your CO or NGO dedicated to managing or overseeing medical donation programs?

a. Yes [Continue onto 3a]
b. No [Skip to 4]
c. Don't know [Skip to 4]

3a. Please provide the name and title of the person responsible for managing or overseeing medical donations.

Name_____

Title_____

4. Does your CO or NGO have a clear written internal policy (e.g., standard operating procedures) on medical donations?

a. Yes, there is a clear written internal policy that is widely available to all internal staff
b. Yes, there is an internal policy, but only available within the department overseeing medical donations
c. No, there is no internal policy regarding medical donations
d. Don't know

If yes, at the end of the survey, you will be asked to provide documentations or references to the internal policy.

5. Does your CO or NGO have a clear written publicly available external document on medical donations?
   a. Yes, there is a clear written external document that is publicly available
   b. No, there is no external policy regarding medical donations
   c. Don't know

If yes, at the end of the survey, you will be asked to provide documentations or references to the external policy.

Section B – Now think of one to three recent major medical donation programs that involve your CO or NGO and are currently active or have been active in the last five years. They may be considered major programs because they are among the longest, most costly, have the most employees working on them, or have the most units donated, etc. In this section we are going to ask you to provide information on each of the programs regarding the products, the designated time periods, country destinations, disease scope, amounts, targeted events, monitoring process, any existing or planned impact evaluations, etc.

This section consists of three sub-sections, one for each program. You may provide information on more than one program if you wish; otherwise you could skip the sub-sections for program 2 and 3.

Program 1

6. If there is a name for this program, what is it?

_____

6a. Please provide a brief description of this program.

7. This is considered a major donation program because (Please select all that apply):

   a. It is one of the longest programs
   b. It is one of the most costly programs
   c. It is one of the programs that have the most employees working on it
   d. It is one of the programs that have the most units donated
   e. It is a program addressing a major unmet need
   f. It is a program of strategic importance for the future of the CO or NGO
   g. Other (please specify): _____

8. In which year and month was this program initiated? (This will be a dropdown menu)

   a. Year
   b. Month
   c. Don't know

9. Is this program still ongoing?

   a. Yes [Skip to 10]
   b. No [Continue onto 9a]
   c. Don't know [Skip to 10]

9a. In which year and month was this program concluded? (This will be a dropdown menu)

a. Year
b. Month
c. Don’t know

10. What are the regions that your CO or NGO targets with this program? Please select all that apply.

a. Latin America
b. Australia / New Zealand
c. Caribbean
d. Central Asia
e. Central Europe
f. East Asia
g. Eastern Europe
h. Asia Pacific
i. North America
j. North Africa
k. Middle East
l. Oceania
m. South Asia
n. Southeast Asia
o. Sub-Saharan Africa
p. Western Europe
q. Other (please specify): _____

11. What is the total number of countries that your CO or NGO targets with this program?

a. Less than or equal to 5
b. 6-10
c. 11-20
d. 21-50
e. More than 50
f. Don't know

12. What types of products are donated (for COs) or distributed (for NGOs) through this program? Please select all that apply.

a. Analgesics
b. Anti-infectives
c. Medical devices / Medical equipment
d. Gastro intestinal
e. Nutrition
f. Oral health
g. Respiratory
h. Skin
i. Vaccines

j. Vector control
k. Disease specific (please specify): _____

13. Are there specific trainings conducted with the equipment, medicines or other medical supplies, either by your CO or NGO or by an external group?

a. Yes [Continue onto 13a]
b. No [Skip to 14]
c. Don't know [Skip to 14]

13a. Please briefly describe the trainings conducted.

13b. Please identify any external groups that have been involved in providing the trainings.

14. What types of events does your CO or NGO target with this donation program? Please select all that apply.

a. Epidemics
b. Natural Disasters (earthquakes volcanic eruptions, tsunamis, tropical storms, hurricanes, typhoons, extreme temperatures, drought, floods, etc.)
c. Complex emergencies, conflict, and/or war
d. Famine and/or food insecurity
e. Displaced populations, and/or refugee support
f. Addressing ongoing unmet needs in low resource settings
g. Other (please specify): _____
h. No specific types of events
i. Don't know

15. With whom in recipient countries does your CO or NGO coordinate this donation? Please select all that apply.

a. Private host-nation company
b. Host-nation Ministry of health
c. Local hospital / Host nation doctors/medical professionals
d. Host-nation NGOs
e. Regional or country office of your CO or NGO
f. No external coordination
g. Don't know
h. Other (please specify): _____

16. What is the estimated Fair Market Value (FMV) of products and services donated (for COs) or distributed (for NGOs) in this program?

a. < $1,000,000
b. $1,000,000 - $4,999,999
c. $5,000,000 - $24,999,999
d. $25,000,000 - $49,999,999
e. ≥$50,000,000

f. Don’t know

16a. What is the evaluation standard you used to calculate the value of your product donations (FMV)?

a. Average Wholesale Price (AWP)
b. Wholesale Acquisition Cost (WAC)
c. Other (please specify): _____
d. Don’t know

Monitoring of medical donation programs involves the ongoing collection of information on inputs (e.g., donated products, other resources, etc.), process (e.g., on-time delivery to the correct locations, planned activity carried out as scheduled, documentation of implementation, etc.), and outputs (e.g., distribution to the target populations, trainings or other service delivery objectives implemented, etc.) of the program. Now think about the donation program you just described.

17. Does or did your CO or NGO conduct any monitoring of this donation program?

a. Yes [Continue onto 17a]
b. No [Skip to 18]
c. Don’t know [Skip to 18]

If yes, at the end of the survey, you will be asked to provide documentations or references to the monitoring.

17a. Which individual or group is/was in charge of monitoring the program?

17b. In what phase of the program was the monitoring developed? Please select all that apply.

a. Inception of the program
b. During the program
c. After the products were donated or distributed
d. Don’t know

17c. Please describe how your CO or NGO disseminated the results of the monitoring to key stakeholders and the feedback loops.

Impact evaluations of medication donation programs assess the changes at the population level (e.g., improved infrastructure and health outcomes) that can be attributed to the programs. Impact evaluations are usually based on models of cause and effect and require a credible and rigorously defined counterfactual to control for factors other than the program that might account for the observed changes. Now think about the donation program you just described.

18. Has your CO or NGO or any other group ever conducted an impact evaluation for this donation program?

a. Yes [Continue onto 18a]
b. No [Skip to 18h]
c. Don’t know [Skip to 19]

If yes, at the end of the survey you will be asked to provide documentations or references to the impact evaluation.

18a. Please briefly describe the design of this impact evaluation, including the outcome measures, time horizon, comparator group, etc.

18b. Which individual or group, either within or external to your CO or NGO, conducted this impact evaluation?

18c. In what phase of the program was the impact evaluation developed? Please select all that apply.

a. Inception of the program
b. During the program
c. After the products were donated or distributed
d. Don't know

18d. Approximately how much in USD did your CO or NGO spend on the impact evaluation?

a. Less than or equal to $50,000
b. $50,001-$100,000
c. $100,001- $250,000
d. $250,001-$500,000
e. More than $500,000
f. Don't know

18e. Please describe how your CO or NGO disseminated the results of the impact evaluation to key stakeholders.

18f. Has your CO or NGO ever used the findings from this impact evaluation?

a. Yes [Continue onto 18g]
b. No [Skip to 19]
c. Don't know [Skip to 19]

18g. Please summarize how you used the findings from this impact evaluation and the feedback loops.

18h. If not, why not? Please select all that apply.

a. Lack of funding
b. Lack of donor interest
c. Lack of CO or NGO interest
d. Lack of technical staff to conduct impact evaluation
e. Other (please specify): _____

19. Now would you like to provide information on another major donation program?

a. Yes [Repeat Section B]

b. No [Continue onto Section C]

[REPEAT FOR EACH ADDITIONAL PROGRAM]

Section C. In this section, we are going to ask you about priorities for future impact evaluations.

20. Has your CO or NGO ever conducted or commissioned an impact evaluation on any other medical donation program?

a. Yes [Continue onto 20a]
b. No [Skip to 21]
c. Don't know [Skip to 21]

If yes, at the end of the survey you will be asked to provide documentations or references to the impact evaluations.

20a. What other impact evaluations has your CO or NGO conducted or commissioned before?

21. Are there impact evaluations that did not provide necessary data and information to your CO or NGO?

a. Yes [Continue onto 21a]
b. No [Skip to 22]
c. Don't know [Skip to 22]

If yes, at the end of the survey you will be asked to provide documentations or references to the impact evaluations.

21a. Please briefly describe why they were not useful.

22. What areas would your CO or NGO like to engage in with regards to future impact evaluation? Please select all that apply.

a. Disability adjusted life years
b. Economic evaluations
c. Lives saved
d. Logistics
e. Morbidity and mortality
f. Quality of life
g. Recipient government coordination
h. Response time
i. Supply chain strengthening
j. Workforce development
k. Not currently engaged with impact evaluations
l. Other (please specify): _____

Section D. Thank you for taking the time to complete our survey. Now we are going to ask you to kindly provide us with documentations or references to your CO's or NGO's policies, monitoring, and/or impact

evaluations, if your organization's confidentiality policy allows. If you answered “Yes” to any of the following questions:

a Question 4 “Does your CO or NGO have a clear written internal policy on medical donations?”

b Question 5 “Does your CO or NGO have a clear written publicly available external document on medical donations?”

c Question 17 “Does or did your CO or NGO conduct any monitoring of this donation program?”

d Question 18 “Has your CO or NGO or any other group ever conducted an impact evaluation for this donation program?”

e Question 20 “Has your CO or NGO ever conducted or commissioned an impact evaluation on any other donation program?”

f Question 21 “Are you aware of impact evaluations that you supported financially but did not use or found to be irrelevant for your needs?”

Please send the documentations or references to us at globalrx@uw.edu.

Please provide any additional feedback or information that you believe would be helpful.

B. Examples of Metrics Submitted via the Survey by PQMD Members

Input - Human and financial resources, equipment, products, and policies that enable donation program to be delivered

- Number of sutures donated
- Number of insulin syringes donated

Process - The various initial activities carried out to achieve your objectives – Includes documenting steps completed and how well

- Number of X-rays conducted in an average year
- Patient encounter
- Level of improvement of knowledge and skills from courses
- Usefulness of training
- Identified eligible participants in program
- Patients tested for HIV / cervical cancer

Output - The results of the donation efforts at the program level

- Number of women treated
- Number of patients receiving treatment
- Provided treatment

Outcome – The direct and immediate results of the program

- Deficits in healthcare services and hospital services
- Differences in training on healthcare outcomes
- Number of patients benefiting from the program
- Outcome of surgeries

Impact - The long-term change occurred that is attributable to the program

- Impact of donated materials on the budgets of MOH and participating health facilities
- Epidemiological impact
- Cost and socio-economic impact

References Cited

[1]Cameron A, Ewen M, Ross-Degnan D, Ball D, Laing R. Medicine prices, availability, and affordability in 36 developing and middle-income countries: A secondary analysis. Lancet 2009;373: 240–24910.

[2] Cameron A, Roubos I, Ewen M, Mantel-Teeuwisse AK, Leufkens HG, et al. Differences in the availability of medicines for chronic and acute conditions in the public and private sectors of developing countries. Bull World Health Organ 2011;89: 412–421.

[3] van Mourik MS, Cameron A, Ewen M, Laing RO. Availability, price and affordability of cardiovascular medicines: A comparison across 36 countries using WHO/HAI data. BMC Cardiovasc Disord. 2010;10: 25.10.1186/1471-2261-10-25.

[4] Babar ZU, Lessing C, Mace C, Bissell K. The availability, pricing and affordability of three essential asthma medicines in 52 low- and middle-income countries. Pharmacoeconomics. 2013;31:1063-82.

[5] Cameron A, Bansal A, Dua T, et al. Mapping the availability, price, and affordability of antiepileptic drugs in 46 countries. Epilepsia. 2012;53:962-9.

[6] World Health Organization 2012. Medicines: spurious/falsely-labelled/ falsified/counterfeit (SFFC) medicines. http://www.who.int/mediacentre/factsheets/fs275/en/ Accessed July 25, 2014.

[7] Institute of Medicine. Countering the problem of falsified and substandard drugs. National Academies Press, 2013. www.nap.edu/catalog.php?record_id=18272 .

[8] Reliefweb. Annual Disaster Statistical Review 2013: The numbers and trends. http://reliefweb.int/report/world/annual-disaster-statistical-review-2013-numbers-and-trends. Accessed October 15, 2015.

[9] Mahmood M, Riley K, Bennett D, et al. The supply of pharmaceuticals in humanitarian assistance missions: implications for military operations. Military Med. 2011;176:852-7.

[10] Autier P, et al. Drug Donations in Post-Emergency Situations. Health, Nutrition and Population Discussion Paper. 2002 The International Bank for Reconstruction and Development / The World Bank, Washington, DC.

[11] Berckmans P, Dawans V, Schmets G, et al. Inappropriate drug donation practices in Bosnia and Herzegovina, 1992-1996. N Eng J Med. 1997;337:1842-45.

[12] Bonati M, Forte GB, de Joncheere K, Magnusson E. Drug donations to Bosnia-Hercegovina are often inappropriate. BMJ. 1996 Oct 19;313(7063):1011.

[13] Saunders P. Donations of useless medicines to Kosovo contributes to chaos. BMJ. 1999 Jul 3;319(7201):11.

[14]Kotsi T, Van Wassenhove L, Hensen M. Medical donations: Matching demand with supply in broken supply chains. INSEAD. Faculty & Research Working Paper. 2014.

[15] Hanson C, Weaver A, Zoerhoff KL, et al. Integrated Implementation of Programs Targeting Neglected Tropical Diseases through Preventive Chemotherapy: Identifying Best Practices to Roll Out Programs at National Scale. Am. J. Trop. Med. Hyg.,2012;86:508–513.

[16] Hudson Institute. The Pharmaceutical Industry's Contributions to The United Nation's Millennium Development Goals. Washington, DC, May 2013.

[17] World Health Organization. Guidelines for Drug Donations. Revised 2010. Available at http://www.who.int/medicines/publications/med_donationsguide2011/en/ accessed 14 July 2014.

[18] World Health Organization. Guidelines for Health Care Equipment Donations. 2000. World Health Organization, Geneva, Switzerland.

[19] Ladner J, Besson MH, Rodrigues M, et al. Prevention of mother-to-child HIV transmission in resource-limited settings: assessment of 99 Viramune Donation Programmes in 34 countries, 2000-2011. BMC Public Health. 2013 May 14;13:470.

[20] Tekinturhan E1, Audureau E, Tavolacci MP, Garcia-Gonzalez P, Ladner J, Saba J. Improving access to care in low and middle-income countries: institutional factors related to enrollment and patient outcome in a cancer drug access program. BMC Health Serv Res. 2013 Aug 10;13:304.

[21] Gustavsen KM, Bradley MH, Wright AL. GlaxoSmithKline and Merck: private-sector collaboration for the elimination of lymphatic filariasis. Ann Trop Med Parasitol. 2009 Oct;103 Suppl 1:S11-5. doi: 10.1179/000349809X12502035776478.

[22] Boatin B. Ann The Onchocerciasis Control Programme in West Africa (OCP). Trop Med Parasitol. 2008 Sep;102 Suppl 1:13-7.

[23] Wertheimer AI, Santella TM, Lauver HJ. Successful public/private donation programs: a review of the Diflucan Partnership Program in South Africa. J Int Assoc Physicians AIDS Care (Chic). 2004 Jul-Sep;3(3):74-9, 84-5.

[24] Peters D, Phillips T. Mectizan donation program: evaluation of a public-private partnership. Tropical Med International Health. 2004;9:4-15.

[25] Burnham G, Mebrahtu T. The delivery of ivermectin (Mectizan). Tropical Med International Health. 2004;9:26-44.

[26] 25 Years: The MECTIZAN® Donation Program – Merck. www.merck.com/about/featured-stories/mectizan1, accessed 20 July 2014.

[27] Autiera P , Govindarajb R, Gray R, et al. Drug Donations in Post-Emergency Situations. Health, Nutrition and Population (HNP) Discussion Paper. The International Bank for Reconstruction and Development / The World Bank. 2002.

[28] Paluzzi JE "Dualities of interest": the inter-organizational relationships between disease-specific nonprofits and the pharmaceutical industry. Int J Health Serv. 2012;42(2):323-39.

[29] Bero L, Carson B, Moller H, Hill S. To give is better than to receive: compliance with WHO guidelines for drug donations during 2000-2008. Bull World Health Organ. 2010 Dec 1;88(12):922-9. doi:

[30] Turner HC, Walker M, Churcher TS, et al. Reaching the London Declaration on Neglected Tropical Diseases Goals for Onchocerciasis: An Economic Evaluation of Increasing the Frequency of Ivermectin Treatment in Africa. Clin Infect Dis. 2014 Jun 18. pii: ciu467. [Epub ahead of print].

[31] Turner HC, Walker M, Churcher TS, et al. Modelling the impact of ivermectin on River Blindness and its burden of morbidity and mortality in African Savannah: EpiOncho projections. Parasit Vectors. 2014 May 26; 7:241. Epub 2014 May 26.

[32] Waters HR, Rehwinkel JA, Burnham G, et al. Economic evaluation of Mectizan distribution. Trop Med Int Health. 2004 Apr; 9(4):A16-25.

[33] Coffeng LE, Stolk WA, Hoerauf A, et al. Elimination of African onchocerciasis: modeling the impact of increasing the frequency of ivermectin mass treatment. PLoS One. 2014 Dec 29;9(12):e115886.

[34] Partnership for Quality Medical Donations. PQMD Guidelines for Quality Medical Donations. V2a April 2015. Available at http://www.pqmd.org/wp-content/uploads/2015/08/pqmd-standard-v2a-2015.pdf. accessed 15 October 2015.

[35] Partnership for Quality Medical Donations. PQMD Educational Forum 2013.