HTAi Patient and Citizen Involvement in HTA Interest Group (PCIG)
E-Bulletin, August 2017

Enhanced quality and relevance of HTA through patient and citizen involvement

http://www.htai.org/interest-groups/patient-and-citizen-involvement.html

---

Welcome to this month's E-Bulletin

I am delighted to see all the interactions on the mailing list for this group, which shows the value of us all being a part of this vibrant community. We all have pieces of the 'patient involvement puzzle' from our daily work and our experiences of what is working well and where the gaps still remain. This group shows that by joining forces we can really help one another progress in our goals of bringing patient involvement to the fore, and thereby improving the quality of HTA decision-making.
So please take the time to complete the PCIG questionnaire identifying your resources for patients and the public to contribute to HTA.
I very much value the thought that you all put into helping advance knowledge, thinking and sharing experiences in this way. If you have any suggestions on how we can improve interactions with all of our members through the mailing list, then please do let me know. For example, would it be useful to have a 'topic of the month' where we explore via the mailing list a particular challenge or solution?

Neil Bertelsen

Do you who have or access resources for patients and citizens to be able to contribute to HTA processes?
http://www.htai.org/interest-groups/patient-and-citizen-involvement/pcig-home/questionnaire.html

Please complete our questionnaire to provide us with your web links – so that we can collate a useful widely accessible resource.
Questionnaire: Near the bottom of the page you will see:
"Please could you complete the attached questionnaire by 30 September 2017. Please send your completed questionnaire (along with any suggestions for improvement and extra resources in the email) to": **htai.pie@gmail.com**
Members of the HTAi Patient and Citizen Involvement in HTA Interest Group, Patient Involvement and Education Working Group (PIE)

Review of patient and public involvement at NICE

Over the past 2 years NICE has been reviewing how we involve patients and the public in our work and how we can improve this. Earlier this year the PCIG very kindly responded to our consultation on our proposals to improve patient and public involvement<https://www.nice.org.uk/Media/Default/About/NICE-Communities/Public-involvement/public-involvement-review-consultation-paper.pdf> at NICE – thank you very much for taking the time to do this. We received an excellent response to the consultation with 119 organisations and individuals sharing their views with us. Given the number and detail of the comments we have taken time to ensure that we have fully understood and considered the views sent to us. Feedback from respondents has helped us to reinforce the need for change, revise the principles we consulted on and to shape how we might then bring about the changes needed. In July we presented a report to the NICE Board report summarising the consultation comments and our detailing our implementation plan which laid out how we are going to transform our proposals into action. You can read the report as part of the Board papers<https://www.nice.org.uk/Media/Default/Get-involved/Meetings-In-Public/Public-board-meetings/agenda-and-papers-jul-17.pdf> - the papers relating to the patient and public involvement work are from page 144 of the PDF. The Board supported the implementation plan so we are looking forward to working with our stakeholders to put it into effect.
We'll be taking a follow up paper to the NICE Board in September which will give more detail about the new panel of patient and public participants we are looking to set up. Watch this space for more information when it is available.

Many thanks again to PCIG members for their support and input to this work.

Laura Norburn
@NICEGetInvolved – *for messages specifically from the Public Involvement Programme*

Reporting checklist for patient and public involvement in research

"A bit of a coup for patient and public involvement" – as EQUATOR guidance is used by anyone reporting research in major journals (Sophie Staniszewska)

I'm delighted to inform you that the first international reporting guidance for reporting patient and public involvement in research has been co-published in *Research Involvement and Engagement* (RIAE) and *The BMJ* (Sophie Staniszewska is also lead author on the paper). To coincide with the publication, Richard Stephens and Sophie Staniszewska have also posted a blog via our Blogs Network to discuss the importance of the guidelines for the field and for RIAE.
Article: GRIPP2 reporting checklists: tools to improve reporting of patient and public involvement in research
Blog: New guidance for reporting patient and public involvement in research

Ella Flemyng
Journal Development Manager, BioMed Central

GRIPP2 reporting checklists: tools to improve reporting of patient and public involvement in research
S. Staniszewska1, J. Brett, I. Simera, K. Seers, C. Mockford, S. Goodlad, D.G. Altman, D. Moher, R. Barber, S. Denegri9, A. Entwistle, P. Littlejohns, C. Morris, R. Suleman, V. Thomas and C. Tysall. Research Involvement and Engagement (2017) 3:13

While the patient and public involvement (PPI) evidence base has expanded over the past decade, the quality of reporting within papers is often inconsistent, limiting our understanding of how it works, in what context, for whom, and why.

Objective: To develop international consensus on the key items to report to enhance the quality, transparency, and consistency of the PPI evidence base. To collaboratively involve patients as research partners at all stages in the development of GRIPP2.
Methods: The EQUATOR method for developing reporting guidelines was used. The original GRIPP (Guidance for Reporting Involvement of Patients and the Public) checklist was revised, based on updated systematic review evidence. A three round Delphi survey was used to develop consensus on items to be included in the guideline. A subsequent face-to-face meeting produced agreement on items not reaching consensus during the Delphi process.
Results: One hundred forty-three participants agreed to participate in round one, with an 86% (123/143) response for round two and a 78% (112/143) response for round three. The Delphi survey identified the need for long form (LF) and short form (SF) versions. GRIPP2-LF includes 34 items on aims, definitions, concepts and theory, methods, stages and nature of involvement, context, capture or measurement of impact, outcomes, economic assessment, and reflections and is suitable for studies where the main focus is PPI. GRIPP2-SF includes five items on aims, methods, results, outcomes, and critical perspective and is suitable for studies where PPI is a secondary focus.
Both versions of GRIPP2 aim to improve the quality, transparency, and consistency of the international PPI evidence base, to ensure PPI practice is based on the best evidence.

AND: GRIPP2 reporting checklists: tools to improve reporting of patient and public involvement in research S Staniszewska, J Brett, I Simera, K Seers, C Mockford, S Goodlad, DG Altman, D Moher, R Barber, S Denegri, A Entwistle, P Littlejohns, C Morris, R Suleman, V Thomas, C Tysall. *BMJ* 2017;358:j3453 http://dx.doi.org/10.1136/bmj.j3453

A collaborative partnership which includes patients as prominent partners

The Green Park Collaborative, National Hemophilia Foundation, McMaster University announce launch of coreHEM Project

An international team involving dozens of stakeholders from patients and policy makers to payers and government agencies are getting together to set how gene therapies in hemophilia should be measured for effectiveness. The goal of COREHEM is to develop a set of clearly defined outcomes ("core set") to measure, demonstrate and differentiate the effectiveness and value of gene therapy in hemophilia relative to alternative therapies. COREHEM will be conducted as a partnership between the National Hemophilia Foundation, the Green Park Collaborative within the Center for Medical Technology Policy, and the McMaster University Health Information Research University. https://goo.gl/9w5yds An article about coreHEM was published in the August issue of DIA Global Forum. The link to the digital magazine is provided below https://goo.gl/gLELg2.

Mark Skinner

Our Panel session from Rome 'Will the patient-centric approach of Value-based Healthcare drive innovation in HTA?' (PN.06)
– is now available at:
http://www.htai.org/interest-groups/patient-and-citizen-involvement/pcig-home/htai-2017.html (Abstract)
AND
http://www.htai.org/meetings/annual-meetings/2017-presentations/panel-presentations.html
All presentations with the exception of COMET are there. Mark Skinner's is great re patient views.

John Gillespie, Medtronic

Please check the 2017 Presentations Webpage on a regular basis, as this page will be updated as the Secretariat receive Presentations.

HTAi Policy Forum Series Newsletters
Newsletter 1 (August 2017): *"Allocating Scarce Healthcare Resources: How Do Value Frameworks Add Value?"*
Reflections on the HTAi Global Policy Forum Panel Session held at the HTAi Annual Meeting in Rome, Monday 19 June 2017.

What's Happening

Steering a course to avoid the 'drug iceberg'- the challenges of accessing new and innovative medicines in Ireland and the call for a new national strategy. A Consensus perspective from patient groups
http://www.ipposi.ie/wp-content/uploads/2016/09/IPPOSI-MRCG-Report-Steering-a-course-to-avoid-the-drug-iceberg-August-2017.pdf

There is a growing list of drug therapies that have been approved for reimbursement in Ireland but for which no funding has been provided by the exchequer. There are also a growing number of drug therapies in the early or later stages of clinical development which have limited chance of being reimbursed in Ireland, irrespective of their efficacy, because of a retraction or major delays in drug therapy approvals in recent years.
In June 2017 IPPOSI and the Medical Research Charities Group (MRCG) co-hosted a patients-only meeting on the issue of Access to Medicines in Ireland. We are pleased to announce the Consensus Report arising from this meeting.

US Senate backs "right to try" legislation for the terminally ill
The United States Senate has passed a "right to try" measure that is designed to make it easier for terminally ill patients to use experimental treatments without oversight from the Food and Drug Administration (FDA), although the proposal has attracted controversy and criticism from some patient, medical and pharmaceutical industry stakeholders. After patients have tried all other available treatments and are unable to participate in clinical trials, the legislation would allow them to use therapies that have only had preliminary human testing. https://www.washingtonpost.com/news/to-your-health/wp/2017/08/03/senate-passes-right-to-try-bill-to-help-terminally-ill-patients-get-experimental-drugs/?utm_term=.c273ff623ca

---

A step that patient support groups have to go through in some countries:

Oscar's Angels receives official approval by French government
The France-based charity has been awarded the label "Association d'Usagers du Système de Santé" by the French government. This designation means that the charity is now authorised by the government to officially represent "users" (patients and their families) in the hospital commissions and in all Public Health Authorities; to be their voice, and to defend their rights on the highest level. The charity can also make proposals on the evolution of the health system and the draft of new health policies. Oscar's Angels' mission is to provide care and financial support to families of hospitalized and/or disabled children, particularly those with brain or spinal tumours, severe neurological problems and those in palliative care.
http://www.oscarsangels.com/
(from International Brain Tumour Alliance newsletter)

Three interesting publications

(1) A paper authored by FDA Center for Biologics Evaluation and Research staff members – that stresses the importance of patient preference data and informed use into medical product development and regulatory

decision-making. Policy momentum around patient preferences and the need to incorporate the patient perspective into decision-making is clearly building up:
Experience report. Advancing the science of patient input throughout the regulatory decision-making process. Million A. Tegenge, Megan M. Moncur, Robert Sokolic, Richard A. Forshee, Telba Irony. Learn Health Sys. 2017;e10032. https://doi.org/10.1002/lrh2.10032.

(2) A review on non-RCT evidence for health decision making. It has a nice overview of various types of studies and analyses, including some interesting case studies. The goal must be actionable data — data that are sufficient for clinical and public health action that have been derived openly and objectively and that enable us to say, "Here's what we recommend and why."
Evidence for Health Decision Making — Beyond Randomized, Controlled Trials. Thomas R. Frieden. N Engl J Med 2017;377:465-75. DOI: 10.1056/NEJMra1614394

(3) A systematic review of 238 studies on risk sharing agreements. It shows that the interest in risk sharing agreements between payers, regulatory agencies, and companies has been increasing - pharmaceutical manufacturers are being pressured to demonstrate real-world value for money beyond that of the three traditional criteria of drug regulators: quality, efficacy, and safety. Underlying reasons for changes in the level of interest in risk-sharing agreements (RSAs) include (1) push for value-based pricing, (2) economic crisis and further push to contain costs, (3) criticism of RSAs in the real world, and (4) diversification of RSAs to fit the purpose. Increased reporting on pricing and reimbursement practices has led to an improved understanding of risk-sharing agreements.
Risk-Sharing Agreements in the EU: A Systematic Review of Major Trends. Trevor Jozef Piatkiewicz, Janine Marie Traulsen, Tove Holm-Larsen. PharmacoEconomics Open (2017) DOI 10.1007/s41669-017-0044-1.

Thomas Morel

Patient Reps – Bringing the Voice of Patients to FDA:
https://blogs.fda.gov/fdavoice/index.php/2017/07/patient-reps-bringing-the-voice-of-patients-to-fda/

The Rules of Engagement: CTTI Recommendations for Successful Collaborations between Sponsors and Patient Groups around Clinical Trials
Diane Bloom, Joel Beetsch, Matthew Harker, Sharon Hesterlee, Paulo Moreira, Bray Patrick-Lake, Wendy Selig, Jeffrey Sherman, Sophia K. Smith, James E. Valentine, and Jamie N. Roberts. Therapeutic Innovation & Regulatory Science 2017;1-8.
Objective: To identify the elements necessary for successful collaboration between patient groups and academic and industry sponsors of clinical trials, in order to develop recommendations for best practices for effective patient group engagement.
Methods: In-depth interviews, informed by a previously reported survey, were conducted to identify the fundamentals of successful patient group engagement.
Results: Interview respondents acknowledged that not all patient groups are created equal in terms of what they can contribute to a clinical trial. The most important elements for effective patient group engagement include establishing meaningful partnerships, demonstrating mutual benefits, and collaborating as partners from the planning stage forward. Although there is a growing appreciation by sponsors about the benefits of patient group engagement, there remains some resistance and some uncertainty about how best to engage. Barriers include mismatched expectations and a perception that patient groups lack scientific sophistication and that "wishful thinking" may cloud their recommendations.

Assessing the Financial Value of Patient Engagement: A Quantitative Approach from CTTI's Patient Groups and Clinical Trials Project

Bennett Levitan, Kenneth Getz, Eric L. Eisenstein, Michelle Goldberg, Matthew Harker, Sharon Hesterlee, Bray Patrick-Lake, Jamie N. Roberts and Joseph DiMasi. Therapeutic Innovation & Regulatory Science 2017;1-10

Background: While patient groups, regulators, and sponsors are increasingly considering engaging with patients in the design and conduct of clinical development programs, sponsors are often reluctant to go beyond pilot programs because of uncertainty in the return on investment. We developed an approach to estimate the financial value of patient engagement. Methods: Expected net present value (ENPV) is a common technique that integrates the key business drivers of cost, time, revenue, and risk into a summary metric for project strategy and portfolio decisions. We assessed the impact of patient engagement on ENPV for a typical oncology development program entering phase 2 or phase 3. Results: For a pre–phase 2 project, the cumulative impact of a patient engagement activity that avoids one protocol amendment and improves enrollment, adherence, and retention is an increase in net present value (NPV) of $62MM ($65MM for pre–phase 3) and an increase in ENPV of $35MM ($75MM for pre–phase 3).

Compared with an investment of $100,000 in patient engagement, the NPV and ENPV increases can exceed 500-fold the investment. This ENPV increase is the equivalent of accelerating a pre–phase 2 product launch by 2½ years (1½ years for pre–phase 3). Conclusions: Risk-adjusted financial models can assess the impact of patient engagement. A combination of empirical data and subjective parameter estimates shows that engagement activities with the potential to avoid protocol amendments and/or improve enrollment, adherence, and retention may add considerable financial value. This approach can help sponsors assess patient engagement investment decisions.

Nigel Cook

If you haven't been able to catch up with the **FDA's latest digital developments** or new **Innovation in Medical Evidence Development and Surveillance (IMEDS) Program**, the new **"Patient Pledge"**, or new **approval pathways in Australia**, get up to speed with your new monthly **August *Global Forum***!

Missed our *DIA 2017 Global Annual Meeting* in June or need a recap? Exclusive photos and reports in this issue's supplement, ***Reflections and Reports from Chicago***, bring highlights of the meeting directly to you.

Podcast – Patient Partners: Power that rests in us all.

Read August Global Forum

Patient Participation at Health Care Conferences: Engaged Patients Increase Information Flow, Expand Propagation, and Deepen Engagement in the Conversation of Tweets Compared to Physicians or Researchers. J Med Internet Res 2017;19(8):e280
http://www.jmir.org/2017/8/e280/

Background: Health care conferences present a unique opportunity to network, spark innovation, and disseminate novel information to a large audience, but the dissemination of information typically stays within very specific networks. Social network analysis can be adopted to understand the flow of information between virtual social communities and the role of patients within the network.

Objective: The purpose of this study is to examine the impact engaged patients bring to health care conference social media information flow and how they expand dissemination and distribution of tweets compared to other health care conference stakeholders such as physicians and researchers.

Conclusions: Although engaged patients are powerful accelerators of information flow, expanders of tweet propagation, and greatly deepen engagement in conversation of tweets on social media of health care conferences compared to physicians, they represent only 1.4% of the stakeholder mix of the top 100 influencers in the conversation. Health care conferences that fail to engage patients in their proceedings

may risk limiting their engagement with the public, disseminating scientific information to a narrow community and slowing flow of information across social media channels.

AllTrials

Our review of the world's largest pharmaceutical companies' trial registration and reporting policies has been published in the BMJ. It is the first time anyone has systematically examined and compared published company policies on trial transparency. And it was not straightforward to do - company policies are often vague, ambiguously worded, internally contradictory and difficult to interpret.
We found:

- Most of the largest companies, though not all, have some sort of publicly stated policy about registering and reporting results from current trials.
- However, only around half of all the companies we looked at had policies that applied to trials carried out in the past.
- Policies commonly fail to refer to trials on unlicensed treatments or to phase 4 trials. This means there is a loophole that thousands of trials may be falling through.

You can hear Ben Goldacre and Carl Heneghan talk about the process of auditing companies and what it means for trial transparency in the BMJ podcast.
What now?
From policies to practice: AllTrials is now able to identify the mass of unreported trials and over the next two years we will be pursuing them. We're advising anyone who is sitting on an unpublished trial to move quickly to get the results reported, before we get to it.

Síle Lane
Sense about Science

Being able to combine a desire, a passion, a purpose, with true contribution and business is a gift to be truly grateful for. Bringing LevMed Mobile ECG Kit to Developing Countries.

I'm not sure where or how this desire originated, but about four years ago I added a couple of pictures to my vision board. They show a stethoscope, the world, and airplane routes between continents. For me they represent this internal desire for bringing medical technology, mobile health, and medical education to developing countries, to places and people in remote places and rural areas, to places and people who truly need them.
About three years ago, Yuval Zuk offered me to join as partner in LevMed, a medical device company developing and producing innovative cardiology products. Two years ago, while in India, on a flight from Mumbai to Delhi, I told Yuval that I do not know the details yet, how, when, where, but it is clear in my mind that we will bring our mobile health technology to developing countries, to rural areas.
A year ago we received an email from Dr. John Kellett. John asked to purchase a couple of our products. Specifically, he requested to buy our reusable ECG Belt used to perform 12-lead ECG assessments.
To shortly explain, a 12-lead ECG assessment is a basic clinical assessment used to detect any sign of heart problem. Based on these signs, immediate treatment can be provided and lives can be saved. Our mobile ECG allows anyone, even those with no clinical experience, to perform a Hospital Grade 12-lead ECG assessment, anywhere in the world, obtain the results on any iPhone or iPad, including automatic interpretation, and, in case needed, easily send the results to a professional for diagnosis and treatment advice to be provided.
I wrote back to John saying that we do not sell directly to end users, rather we sell only in minimum quantities of 10 belts, usually to distributors or large facilities. But he insisted. So I insisted as well. I started asking many questions –Why? What's the purpose? Where will it be used? Not the usual conversation between a marketing/sales person and a potential customer. But we know now there was a reason. Turns out that John is an Irish physician who has been doing work in Uganda for many years. About a year ago he

started a project in Kitovu hospital, in Masaka, Uganda, together with the Medical Director of the hospital, Dr. Martin Opio. In this project, they are using an innovative software to collect patient's vital signs so to calculate a score based on which the risk of the patient and the level of emergency and type of the treatment necessary is determined. They wanted to use our ECG Belt so to include also ECG assessments in this project. Dr. Opio explained that, at that time, hardly any ECG assessments were performed at the hospital. Maybe only once a month, by himself, the Medical Director, only when the patient had an irregular heart beat or another clear manifestation of cardiac issue. This had been the case for many years, for several reasons:

•Traditional ECG assessments require disposable electrodes –these are very difficult to obtain in such a rural location.

•Unique ECG paper was also required to print out the results. This paper is expensive, difficult to obtain, and the printing would be erased from the paper after a certain time.

•Using disposable electrodes requires experience in application. The nurses do not know how to place the electrodes and fear making mistakes.

•All these resulted in a fairly significant price to the patient –an ECG assessment was performed only when the patient agreed to pay an additional 20,000 Ugandan Shillings (=$4) for the ECG assessment. A price expensive for the population attending this rural hospital.

ECG assessments were so rarely performed, that an old ECG device was stored away in a back room of the medical ward, and a brand new ECG, that was donated to the hospital, worth about $3000, was left in its original package for over 2 or 3 years. So we decided to support this project and, ten months ago, we donated a couple of our LevMedMobile ECG Kits. In return we asked only to receive feedback about the use of our device in this environment. We figured that just as our ECG belt is used in remote locations, on airlines, cruise ships, oil rigs, where there is no professional, it can also provide significant added value in rural hospitals and clinics.

A month ago I arrived to Kitovu hospital. A flight to Addis Ababa, then a flight to Entebbe, then a 4 hour drive to Kitovu Hospital, passing through the equator. My first time to Africa. Amazed by this beautiful green country. Uganda. I spent 10 days in this missionary hospital, Kitovu, in rural Uganda. Dr. Maura Lynch, an Irish Sister of the Medical Missionaries of Marry, was kind enough to invite me to stay in a perfect modest room in her convent. Just beside the prayer room where she and Fidelis sang so beautifully prayers every Saturday evening. Sister-Dr. Maura has been in Kitovu Hospital for many years, where she established and is still the Director of the first Fistula Repair and Training Unit in East Africa, providing her support to the hospital in any way she can. At the convent, before every meal we blessed our food, our friends, our life we are so grateful for. All to the music of Edelweiss, from the Sound of Music. And when we all had just a bit (enough) to drink we also sang all the songs of the Sound of Music together. Me, beautiful Ugandan Dr. Fidelis, an intern in the hospital, living at Maura's convent, and Irish Sister Maura.

I am so grateful for these 10 days. I feel so blessed for having such an experience, spending time with such beautiful, caring, so kind, generously giving people.

During this amazing visit I learned that in the 10 months that passed since we donated our LevMedMobile ECG Kits, almost 2,000 ECG assessments were performed by Immacculate and Teopista, two young ladies who just graduated from nursing school, not having any previous experience with ECG assessments. In the western world, the importance of a 12-lead ECG assessment has been long well established. It is performed in any routine or annual check-up and upon any admittance to a clinic or hospital. And yet, in many developing countries, this is not yet the case.

But the data collected in Kitovu with our ECG Mobile Kit indicates that ECG assessments may be a necessity also in the developing world. The data collected demonstrates that Left Ventricular Hypertrophy (LVH) is diagnosed in at least 20% of the patients admitted to the Medical Ward. The presence of LVH is important clinically because it is associated with increased cardiovascular risk, which can lead to devastating results like heart failure, MI, sudden cardiac death, and other. Doing an ECG assessment can easily diagnose LVH and allow treatment to be provided in a timely manner. In my discussions with the clinical staff at the hospital they described how they usually treat patients for Malaria and different infectious disease. Yet,

there are still occurrence of unexplained sudden death. Non-communicable disease, such as hypertension and LVH may be the cause for some of these incidences.
Without an ECG assessment these cannot be diagnosed. With an ECG assessment these can be easily treated and prevented. This finding is well supported by the World Health Organization, which has presented data demonstrating that out of 17 million premature deaths due to noncommunicable diseases in 2015, 82% are in low and middle-income countries, and 37% are caused by CVDs. It has been clearly determined that people with cardiovascular disease or who are at high cardiovascular risk need early detection and management suing counselling and medicines, as appropriate.
Our LevMedMobile ECG Kit provides exactly that. In an affordable, simple to use manner, it enables anyone to be screened for cardiac risks, diagnosed, and then easily treated appropriately. We believe that a simple ECG can be performed as part of the outpatient assessments done for any patient arriving to the hospital or to any clinic. Furthermore, some discussions with Dr. Martin Opio and the clinical staff at Kitovu Hospital revealed that with our ECG Mobile Kit the hospital can sustain a valid business model that will allow all patients to be screened. In Kitovu, for example, a rural hospital, about 50 adults arrive to the outpatient clinic daily. It is enough to test 50 patients a day at only $1 per test, to recover the cost of our LevMedMobile ECG Kit as well as the annual salary of the nurse after about 2-3 months, leaving the hospital with a margin of several thousand dollars. A portion of the margin generated, we hope, will be used to support some of the patients in the Medical Ward who currently cannot afford the treatment and medication they require.
Being able to combine a desire, a passion, a purpose, with true contribution and business is a gift to be truly grateful for. This is what we believe in. This is what we strive to do. This is what we would like to focus on and expand. Bringing simple TeleHealth solutions to remote locations and rural areas. We are now moving forward, introducing our LevMed Mobile ECG Kit in more developing countries, rural hospitals and clinics, and remote locations. These activities and projects entail many possibilities for collaboration with other medical device companies, internet service providers, Apple hardware providers, pharmaceutical companies, research institutions, and other. We welcome such collaborations.
Expanding the use of our LevMed Mobile ECG Kits will definitely allow the right treatment to be provided in a timely manner to so many individuals all around the world.

Written by: Hadas Mandel, Partner at LevMedLtd.
July 2017.

From the World Health Organization Fact Sheet:
•Cardiovascular Diseases (CVDs) are the number 1 cause of death globally: more people die annually from CVDs than from any other cause.
•An estimated 17.7 million people died from CVDs in 2015, representing 31% of all global deaths.
•Over three quarters of CVD deaths take place in low-and middle-income countries.
•Out of the 17 million premature deaths (under the age of 70) due to noncommunicable diseases in 2015, 82% are in low-and middle-income countries, and 37% are caused by CVDs.
•People with cardiovascular disease or who are at high cardiovascular risk (due to the presence of one or more risk factors such as hypertension, diabetes, hyperlipidaemia or already established disease) need early detection and management using counselling and medicines, as appropriate.
http://www.afro.who.int/health-topics/cardiovascular

Joshua Wamboga

Janet Wale, HTAi PCIG
E-mail: socrates111@bigpond.com