



IMPACT LITERATURE LANDSCAPE: TWO DECADES OF PRODUCT INNOVATIONS FOR NEGLECTED DISEASES

Key findings:

This review assessed the peer reviewed literature on health and/or economic impact of products approved since 1999 for neglected and emerging infectious diseases. A total of 6,173 articles were initially identified, but only 178 were ultimately included in the review.

1. **The largest number of peer reviewed articles** were found for: vaccines for rotavirus (63), diagnostics for tuberculosis (33) and drugs for leishmaniasis (14). Combined they represent nearly 62% of the peer reviewed literature found. Striking literature gaps were observed for chemical vector control products and microbicides.
2. **Predominant metrics:** Out of the total papers examined, 98 integrated both health and economic impact measures. Health impact metrics such as DALYs averted and the economic indicator ICER were predominantly used. This underscores the community's interest in understanding both the immediate health outcomes and broader economic benefits of these products.
3. **Publication trajectory and geographic distribution:** Most articles were published between 2011 and 2023. The studies included in the review focus on high- and middle-income countries suggesting that further efforts and investments need to be made to assess the impact of the health products and innovation in low-income countries where the populations most vulnerable to neglected diseases often live.
4. **Blind spots:** No peer reviewed articles were found describing the health and/or economic impact of products approved for emerging infectious diseases (diagnostics, vaccines and biologics). This an important gap and an area for funders to consider for increased investment in the future.
5. **Capturing the full spectrum of societal impact:** Overall, all the studies included in the review underscore the significant health and economic impact these products have had in individuals and populations. Yet, their full societal impact — like improved school attendance, boosted productivity, reduced absenteeism, and poverty reduction — goes well beyond this health and economic focused review and should be adequately documented and acknowledged going forward.

Introduction

Neglected disease (NDs) and emerging infectious disease (EIDs) encompass a diverse group of pathogens and conditions that cause devastating health, social and economic impacts, particularly in low- and middle-income countries. The product-related R&D ecosystem for these diseases is fraught with market failures and misaligned incentives leaving more than 1.6 billion people around the world without health solutions and vulnerable to these conditions.

Between 2007 and 2021, nearly \$57 billion was invested in research and development (R&D) for NDs, mainly targeting HIV/AIDS, tuberculosis, and malaria. For EIDs, \$8.1 billion has been



invested from 2014-2021, focusing largely on Ebola. These investments have yielded hundreds of approved medical products, with many more candidates in advanced stages of clinical development. However, understanding the full impact of these investments requires more than just counting products and candidates; it calls for a comprehensive analysis of the specific health and economic outcomes these investments have generated, as well as an investigation into the wider societal benefits such investments in innovation and equity can bring about.

To address this need, the "Evidence for Impact" project was initiated. Funded by the Bill and Melinda Gates Foundation, Open Philanthropy, and Wellcome, and led by Policy Cures Research (PCR), the project aims to evaluate the health and economic impacts of the last two decades of investment in global health R&D. PCR has partnered with the African Population Health Research Centre, the Centre for Global Development, Stanford's Innovative Medicine Accelerator and Avenir Health and has received guidance from an Expert Advisory Group comprising over 40 experts in the field. The project has also engaged with more than 100 stakeholders to collaboratively co-create and develop a measurement framework for tracking the impact of these investments on an ongoing basis.

As part of these efforts to collect evidence on the impact of these global health R&D investments, PCR and the African Population and Health Research Centre (APHRC) undertook a systematic literature review to identify peer-reviewed literature aimed at assessing the health and/or economic impact of approved products for NDs and EIDs that have come to market since 1999. The findings of this literature review are best understood in the context of the broader "Evidence for Impact" project, as they are part of a larger collection of evidence generated for the initiative.

Purpose of the review

The purpose of this review was to identify peer reviewed papers published in English between 1999 and 2023, containing evidence of health and/or economic impact, for all approved products for NDs and EIDs. A systematic keyword search inclusive of names and alternative names (where available) for approved products, as well as technology type for different product categories with less consistent product naming conventions (e.g. lateral flow assays, molecular diagnostics, conjugate vaccines, etc.) was conducted.

Disease and product scope

The list of approved products, used as the basis for the literature review, included 187 products approved for neglected diseases and 60 products approved for emerging infectious diseases. The full list of approved products used for the review is available in appendix 1 and 2.

For neglected diseases, the disease and product scope mirrors the G-FINDER scope for neglected diseases. The neglected disease scope of G-FINDER has been defined (and refined) over a period of 15 years by an expert international Advisory Committee, in line with the following three criteria:

- 1) the disease or health issue disproportionately affects low- and middle-income countries (LMICs);
- 2) there is a need for new products (i.e. there is no existing product, or improved or additional products are needed); and
- 3) there is market failure (i.e. there is insufficient commercial market to attract R&D investment by private industry).

Overall, the G-FINDER scope for neglected diseases includes 38 diseases, as well as additional multi-disease categories. Product/pathogen combinations for which there is a viable commercial market, such as dengue vaccines, are excluded, and other areas with dual-market potential (e.g., HIV drugs, pneumococcal vaccines) have strict inclusion restrictions. This means that most antiretrovirals are excluded and not considered within the scope. Full details of these restrictions are provided in the [G-FINDER neglected disease scope document](#). Additionally, while snakebite envenoming (SBE) is included in the G-FINDER scope for neglected diseases, it has been excluded from this review.

For emerging infectious diseases, the disease scope is based upon the priority diseases identified in the [World Health Organization's R&D Blueprint for Action to Prevent Epidemics \(R&D Blueprint\)](#), and [CEPI's priority diseases](#). Overall, the scope for emerging infectious diseases includes 10 diseases: Lassa fever, Crimean-Congo haemorrhagic fever, Rift Valley fever, Chikungunya, MERS, SARS, Ebola, Marburg, Nipah and Zika. COVID-19 was excluded from this literature review due to resource and time constraints. Drugs, vaccines, biologics and diagnostics are in scope for all included emerging infectious diseases, and vector control products are included where relevant.

Methodology

This systematic review was performed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols (PRISMA-P) guidelines. It was not registered in PROSPERO. Criteria for inclusion:

- Peer reviewed articles in English published between 1999 – 2023.
- Specific reference to one or more of the approved products for NDs and/or EIDs (e.g. product name, alternative name, or technology type).
- Geographical coverage: global, regional, national or sub-national.
- The study had to include reference to one or more of the following key impact terms:
 - Health impact: "cases averted" OR "cases detected" OR "disability-adjusted life years" OR "disability-adjusted life year" OR "DALY" OR "lives saved" OR "deaths averted" OR "disease prevalence" OR "patients reached" OR "mortality reduction" OR "reduction in mortality" OR "mortality rate" OR "morbidity reduction" OR "reduction in the morbidity rate" OR "years of life lost averted" OR "YLL averted" OR "years of life with disability averted" OR "YLD averted"
 - Economic impact: "cost-benefit" OR "cost-benefit ratio" OR CBR OR "cost savings" OR "incremental cost-effectiveness ratio" OR "cost-effectiveness analysis" OR "indirect savings" OR "savings to healthcare costs" OR "societal value of health gain" OR "societal value".

The databases searched included Medline, Embase, and Econolit (queried in Ovid). The search strategy was structured as follows: Condition AND (Product Name OR Alternative Name(s) OR Technology Type) AND Health/ Economic Impact (as described above). A variety of search terms were employed due to the heterogeneity of the disease and product categories of interest. See appendix 3 for the complete list of keyword search terms employed.

Titles and summaries were initially scanned by reviewers to eliminate articles that were irrelevant. Full-text articles were then assessed for eligibility based on the inclusion criteria; disagreements were resolved in consultation between the APHRC and PCR research teams.

Key details were extracted from articles that met the inclusion criteria including: diseases covered, products studied, year of publication, countries included in the study and health and economic impact indicators used. Data was organized into an Excel matrix, and any discrepancies were collaboratively addressed and corrected.

Key findings

A total of 6,173 articles were initially identified. Upon screening the titles and abstracts, 4,706 articles were excluded. The full-text formats of the remaining 1,467 articles were assessed, resulting in a further 1,289 exclusions. Ultimately, 178 articles were included in the review. These 178 selected studies serve as the foundation for the subsequent analysis and synthesis of evidence on the research topic.

No peer reviewed articles were found describing the health and/or economic impact of products approved for emerging infectious diseases (diagnostics, vaccines and biologics). The results of the review are therefore focused on the health and/or economic impact of products approved since 1999 for neglected diseases.

Table 1 provides an overview of the peer reviewed literature included per disease and product category.

Disease	n (%)	Diagnostics	Diagnostics and drugs	Drugs	Microbicides	Vaccines	VCPs
Bacterial pneumonia	8 (4%)					8	
Cholera	7 (4%)					7	
Hepatitis B	2 (1%)	2					
Hepatitis C	2 (1%)	2					
HIV/AIDS	10 (6%)	9			1		
Leishmaniasis	17 (10%)	3		14			
Malaria	13 (7%)		1	6		2	4
Meningitis	1 (0.6%)					1	
Onchocerciasis	1 (0.6%)			1			
Rotavirus	63 (35%)					63	
Scabies	5 (3%)			5			
Tuberculosis	43 (24%)	33		10			
Chagas' disease	6 (3%)			6			
Grand total	178	49	1	42	1	81	4

The following emerge from the overview of the peer reviewed articles describing the health and/or economic impact of the products and disease scope included in this review:

- Unequal impact assessment available across diseases/product areas: Studies assessing the impact of rotavirus vaccines dominate with 35% of the articles, while products for critical diseases like meningitis or cholera are only included in less than 5% of the studies.
- Focus on vaccines: There is a significant portion of the research — 45% (81 out of 178 articles) — devoted to vaccines. This focus underscores, on one hand, the perceived importance of preventive measures in addressing these diseases and on the other the level of investment in R&D for vaccines and the demand for measuring their impact.

- Limited chemical vector control research: Despite representing nearly 30% of all products approved for NDs since 1999 (56 out of the 187), chemical vector control products seem to have received the least attention, represented in just 4 articles or 3% of the total research. This indicates a possible gap in current research priorities.
- Research for diagnostics lags behind: Despite the critical role diagnostics play in disease management and the fact that 88 out of the 187 products approved since 1999 are diagnostics (47% of all approved products), only 28% (49 out of 178 articles) of the research is devoted to diagnostics. Diseases like tuberculosis have a particularly strong focus on diagnostics, but other diseases like malaria are lagging.

Table 2 describes the breakdown by outcome of the articles included in the review:

Impact outcomes featured in the articles	n (%)
Economic outcomes	54 (30%)
Health outcomes	29 (16%)
Health and economic outcomes	95 (54%)
Total	178 (100%)

Out of the total of 178 papers examined, the majority (98 articles) integrate both health and economic impact measures, 29 solely examine health impact and 55 exclusively measure economic impact. While combined outcomes are a significant focus of the articles included, economic impact seems to be studied further than the assessment of health impact alone.

When considering economic impact, diagnostics constitute a total of 15%, but this drops to only 3% when looking at health impact alone. For combined health and economic outcomes, diagnostics cover 10% of the peer reviewed articles found.

Vaccines are most extensively studied under the combined health and economic impacts, making up 33% of this category. In contrast, vaccines account for only 7% and 6% of economic and health impacts respectively.

Drugs form a significant portion of studies focusing on health impacts alone (8%) and combined outcomes (7%). When considering economic impacts alone, drugs are at 9%.

Delving into the health and economic indicators reported on by the articles included in this review, it is worth highlighting:

- **Health Impact Metrics:** "Disability-adjusted Life Years (DALYs) averted", "number of deaths averted" and "number of cases averted" were the most frequent health outcomes reported on. This suggests a dominant interest in both the immediate health outcomes and long-term benefits. "Quality-adjusted Life Years (QALYs) gained" was also often measured, reflecting the importance of both life quality and longevity. Reduction in clinical events and hospitalizations are consistently measured highlighting the interest in assessing the impact of these products on the healthcare systems. The "percentage change in burden of disease" underlines the interest in understanding the broader impact of the product at the population level.
- **Economic Indicators:** The "Incremental Cost-Effectiveness Ratio" (ICER) was the most used economic indicator. This metric, which balances cost against benefit, is indispensable for decision-makers. Other notable mentions include "direct savings to

healthcare costs" and "cost-effectiveness analysis", highlighting the dual focus on savings and value comparison across the peer reviewed literature.

The literature reviewed shows the effort of impact studies to couple cost and economic value with a broader enhancement of health of individuals and populations. This approach is particularly important for this group of diseases which affect the most vulnerable populations. Relying solely on either economic or health metrics risks offering a myopic view of the comprehensive impact the products being introduced may have.

In terms of publication timings, 3 of the articles included in the review were published between 1999-2005; 23 articles between 2005-2010; 54 articles between 2011-2015; 59 between 2016-2020 and 39 between 2021 and 2023.

Table 3. provides a distribution of the health and/or economic impact assessment articles across different income groups.

Income group	n (%)	Diagnostics	Diagnostics and drugs	Drugs	Microbicides	Vaccines	VCP
Global	1 (0.6%)	1					
Low income	20 (11%)	7		2		10	1
Middle income	75 (42%)	16	1	23		32	3
High Income	62 (35%)	20		7		35	
Multiple (HMICs)	1 (0.6%)			1			
Multiple (LMICs)	12 (7%)	3		5	1	3	
Multiple (MICs)	3 (2%)			2		1	
Multiple (undefined)	1 (0.6%)	1					
Not applicable	3 (2%)	1		2			
Grand total	178	49	1	42	1	81	4

The majority of the articles published assessed the impact of approved products in high- and middle-income countries. This contrasts with the needs for these products which remain disproportionately in low and low-middle income countries.

Regarding the types of studies, while there's some diversity in research methodologies used to assess the health and/or economic impact of the selected approved products, there is a clear dominance of modelling studies. These account for a significant 142 out of 178 articles included in the review (approximately 80%). This indicates that the majority of research conducted in this area relies on statistical, mathematical, or computational models to understand, predict, or analyse the impact of the selected products.

Randomized controlled trials (RCTs) and cluster randomized controlled trials together account for 14 out of 178 articles. Case-control studies, which are particularly useful for understanding rare outcomes or diseases, are minimally used, with only 3 instances among the reviewed articles.

So, while there's a diversity in research methodologies used to assess the impact of global health R&D, there's a clear dominance of modelling studies. This is understandable given the economic indicators used to assess impact, and the fact that in order to not discount the full impact of a new product/innovation (especially products that prevent disease) we need to model into the future and gain a fuller picture of the return on investment.

The emphasis on combined health and economic impacts in many diseases, especially in modelling studies, speaks to research efforts to understand the broader implications of the products approved and therefore the investment made to bring those products to those that need them the most.

Examples of impact

Overall, the studies included in the review describe the very significant health and/or economic impact that these products have had. The aim of this review was not to meta analyse the impact data, nor to model the overall impact of these products. Rather, it was to provide insights on the evidence landscape that currently exists for the selected products. Nevertheless, below is a very small selection of examples to illustrate the types of impact reported in these studies.

Malaria prevention in East and Southern Africa: In a cluster-randomised trial conducted across Kenya, South Africa, Uganda, and Zimbabwe, the effectiveness and cost of various insecticide-treated nets (ITNs) in malaria prevention and control were assessed. The specific products tested were α -cypermethrin only, pyriproxyfen and α -cypermethrin, chlorfenapyr and α -cypermethrin, and piperonyl butoxide and permethrin. Among the nets tested, chlorfenapyr long-lasting insecticidal nets (LLINs) stood out, averting 152 DALYs per 10,000 population. In contrast, piperonyl butoxide LLINs averted 37 DALYs per 10,000 people. Both nets were cost effective with chlorfenapyr LLINs delivering higher impact. They were more cost-effective, even with an added cost of \$19 to public providers or \$28 to donors per DALY averted, remaining well below the cost-effectiveness thresholds of \$292 to \$393 per DALY averted. Funders, national malaria control programmes, and stakeholders should urgently advocate and set up incentive structures to promote better textile and active ingredient durability on LLINs to maximise the potential of these tools for sustained malaria control in the face of rising insecticide resistance. (Mosha *et al.*, 2022)

Visceral leishmaniasis diagnostics in Brazil: In a modelling study conducted in Brazil, the economic impact of different diagnostic tests for leishmaniasis was evaluated. The study included IT LEISH, LAMB, and DAT-LPC tests. The cost-effectiveness analysis revealed that the combination of IT LEISH and liposomal amphotericin B was the most favorable option among all strategies evaluated. It demonstrated lower costs and higher effectiveness compared to the other strategies. Even when considering all six strategies, IT LEISH + liposomal amphotericin B remained the most cost-effective choice. The use of DAT-LPC + liposomal amphotericin B resulted in an ICER (incremental cost-effectiveness ratio) of US\$326.31 per life year gained without a discount rate of 5% per year, and US\$12.42 with a discount rate of 5% per year. (Assis *et al.*, 2019)

Cost-effectiveness assessment of vaccination strategies for cholera control in Bangladesh: A modelling study conducted in Bangladesh assessed the health and economic impact of deployment strategies of preventive oral cholera vaccines (OCVs). Four OCVs scenarios were developed: (1) vaccination of children aged one and above with two doses of OCVs, (2) vaccination of population aged 5 and above with a single dose of OCVs, (3) vaccination of children aged 1-4 with two doses of OCVs; and (4) combined strategy of (2) and (3). The incremental cost-effectiveness ratios (ICERs) for the four strategies from the societal perspective were \$2,236, \$2,250, \$1,109, and \$2,112 per DALY averted, respectively, with herd immunity being considered. Without herd immunity, the ICERs increased substantially for all four scenarios except for the scenario that vaccinates children aged 1-4



only. With the cut-off of 1.5 times gross domestic product per capita (which for Bangladesh was \$2,784 in 2019), the four OCVs deployment strategies are cost-effective. The combined strategy is more efficient than the strategy of vaccinating the population aged one and above with two doses of OCVs, and could be considered in resource-limited settings. (Zeng *et al.*, 2021)

Rotavirus vaccines in middle income countries: A modelling study conducted by Debellut, Frédéric, et al. focused on the health and economic impact of rotavirus vaccines in 63 middle-income countries that are not eligible for Gavi funding found that over the period from 2020 to 2029, the three rotavirus vaccines could prevent a significant number of cases, hospitalizations, and deaths due to rotavirus. Specifically, the vaccines could avert 77 million cases of rotavirus gastroenteritis, 21 million clinic visits, 3 million hospitalizations, and 37,900 deaths in these countries. The study also evaluated the cost-effectiveness of rotavirus vaccination from a government perspective, and rotavirus vaccination would be cost-effective in 48 out of the 62 MICs considered, accounting for 77% of the countries. The benefit–risk ratio for hospitalisations prevented versus those potentially caused by vaccination exceeded 250:1 in all countries. (Debellut *et al.*, 2021)

Tuberculosis treatment in high burden countries: This study modelled the health outcomes and impact on healthcare resources of adding bedaquiline to the treatment regimen of MDR-TB in selected high burden countries: Estonia, Russia, South Africa, Peru, China, the Philippines, and India. From the analysis, this study demonstrated that the addition of bedaquiline to a background regimen (BR) reduced cases of acquired resistance. The addition of bedaquiline to BR resulted in total healthcare cost offsets (excluding treatment acquisition costs). At prices required to satisfy the WHO CE threshold, the probability that bedaquiline would be cost-effective was 32%–94% in the high burden countries analyzed. The addition of bedaquiline to BR resulted in savings to healthcare costs compared with BR alone in all countries analyzed. The price per regimen at which bedaquiline would be cost-effective ranged between US\$23,904-US\$203,492 in Estonia, Russia, Peru, South Africa, and China (high and upper middle-income countries) and between US\$6,996-US\$20,323 in the Philippines and India (lower middle-income countries). The study concludes that adding bedaquiline to BR improves health outcomes and reduces healthcare costs in high MDR-TB burden countries. The range of prices per regimen for which bedaquiline would be cost-effective varied between countries. (Lu et al., 2017)

The full details for each of the 178 studies included in the review will be publicly and freely available in May 2024 in the Policy Cures Research database under <https://www.policycuresresearch.org/>.



Caveats and limitations

Before delving into the implications of the findings of the review, it's important to acknowledge some of the limitations of the results of this review:

Language and type of evidence: Due to resource and timeline constraints, the literature search was restricted to peer reviewed articles written in English only. This has excluded all peer reviewed articles written in other languages. French, Portuguese, Spanish, Mandarin and others could be languages where significant peer reviewed articles may have been published but not considered for this work. Likewise, there are significant pieces of evidence that have not been published in peer reviewed journals from various legitimate organizations active in global health that have not been considered in this exercise.

Scope and focus: The review's scope is product driven and limited to products approved since 1999 that align with the G-FINDER's neglected disease scope and for selected emerging infectious diseases.

Study variability: There's a marked heterogeneity among the included studies in terms of design, methodology, and target populations. This makes direct comparisons or meta-analysis challenging.

Complex disease dynamics: NDs and EIDs can show sporadic outbreaks, long incubation periods, diverse transmission routes and complex inter disease dynamics, making it hard to quantify accurately the impact of approved products across such a wide range of health and economic indicators.

Additional societal benefits: The approved products at the centre of this review have much wider health and societal benefits than the ones included in this review (for example increased school attendance and participation, increased productivity and labour participation, reducing inequalities, contributing to poverty reduction, etc). Restricting the review to the search terms used provides an important but limited view of the overall impact these products have had in society.

Measurement challenges: Many regions, especially low-income ones, have bleak surveillance and reporting systems, making accurate impact estimation hard.

Limited historical data: Historical data on the prevalence of NDs and EID may not always be available. This may make it difficult to establish baseline measures and accurately assess the impact of products for these diseases over time.



Implications for Global Health R&D

The availability of evidence on health and/or economic impact for different diseases and products (and disease and product combinations) has important implications for future investments in global health R&D. The results of this review are only one of the various foundational evidence pieces being collected as part of the “Evidence for Impact” project.

A striking finding of the review is the lack of peer reviewed articles focused on the health and/or economic impact of global health products approved for EIDs (excluding COVID-19). For EIDs, the peer reviewed literature found, and excluded, was mostly focused on efficacy and safety of diagnostics, biologics and vaccines. Measuring the impact of products for diseases that have sporadic outbreak scenarios is a very different exercise than for many neglected diseases. Nevertheless, this is critical and its absence from the peer reviewed literature indicates an important gap and an area for funders to consider for increased investment in the future.

The focus on impact in high- and middle-income countries suggests that further efforts and investments need to be made to assess the impact of the health products and innovation in low-income countries where the populations most vulnerable to neglected diseases often live. Such efforts in assessing impact in affected and vulnerable populations in LMICs is aligned with current regional and global dialogues on building capacity at the local level and shifting the attention and investments to LMICs.

For the disease/product type areas where studies were found (mainly for vaccines and drugs), the evidence is strong when it comes to the health and economic impact of the products that have come to market since 1999. The existing studies show a wide range of impact on population health but also on economic indicators.

The limited availability of evidence on microbicides suggests a need for further research and investment in this area. Supporting additional studies to generate more robust evidence on the effectiveness, safety, acceptability, and cost-effectiveness of microbicides may spur and accelerate policy decisions on the integration and implementation of microbicides as a prevention strategy for HIV/AIDS and other global health R&D diseases.

Likewise, there also seems to be a gap in the evidence available for VCPs. Further investment in assessing the health and economic impact of VCPs can support research on new insecticides, novel vector control tools, and innovative approaches to target mosquitoes. Such investments can contribute to the development of more effective and sustainable interventions to combat malaria and other mosquito transmitted diseases.

For diagnostics, the peer reviewed evidence found was largely focused on tuberculosis. Given the critical role diagnosis plays in disease management as well as pandemic preparedness and response, this is an area that clearly needs further investment.

Strategic funding in global health R&D, based on available evidence, is essential to advance global health outcomes and improve overall well-being. The peer reviewed evidence collected on health and/or economic impact can serve as one point of information when reflecting on past and future investments for global health R&D. With focused funding, we can fill research gaps, spark new solutions, and tackle challenges in prevention, diagnostics, and treatment of NDs and EIDs. These investments play a key role in improving health and well-being worldwide.



Conclusions

The review indicates clear disparities in the depth and breadth of global health R&D's impact studies. The evidence of products approved for rotavirus dominated the results whereas impact studies for products approved for numerous other critical diseases were significantly underrepresented. Additionally, while vaccines are a primary focus of the peer reviewed evidence found, areas such as chemical vector control and diagnostics do not receive proportional attention. The latter is especially concerning, considering the pivotal role of diagnostics in disease management.

Most studies evaluated both health and economic effects, emphasizing the interest in a multidimensional understanding of societal impact of these products and not just one or the other. With DALYs averted and ICER frequently used as impact measures, it's evident that research aims to provide a comprehensive understanding of health products' effects on both individual health and larger healthcare systems or populations.

As mentioned before, this analysis of the peer reviewed literature is but one piece of evidence in a landscape that is complex, full of nuances and disparities. For informed decision making on future investments and meaningful R&D portfolio management, the evidence compiled for this review should be complemented by real world evidence studies, other impact assessments and above all well designed studies focusing on the populations that need these products the most.



Appendix 1. List of products approved for neglected diseases

Name	Alternative names	Disease	Product
Multiplex PCR assay	TaqMan Array card; BioFire® FilmArray® Meningitis/Encephalitis (ME)	Bacterial pneumonia & meningitis	Diagnostics
Meningitis lateral flow assay	MeningoSpeed	Bacterial pneumonia & meningitis	Diagnostics
Meningitis latex agglutination assay	WELLCOGEN N. MENINGITIDIS A,C,Y W135; PASTOREX™ MENINGITIS	Bacterial pneumonia & meningitis	Diagnostics
MenAfriVac	Meningitis A vaccine - Serum Institute of India/PATH; Meningococcal A conjugate vaccine - Serum Institute of India/PATH; Monovalent group A conjugate vaccine - Serum Institute of India/PATH; Meningococcal vaccine group A conjugate - Serum Institute of India/PATH	Bacterial pneumonia & meningitis	Vaccines
Alere BinaxNOW® Streptococcus pneumoniae urinary antigen Card		Bacterial pneumonia & meningitis	Diagnostics
Synflorix	Pneumococcal vaccine conjugate 10-valent - GlaxoSmithKline; 10-valent pneumococcal conjugate vaccine - GlaxoSmithKline; 10-valent pneumococcal vaccine conjugate - GlaxoSmithKline; 10Pn-PD-DiT; GSK-1024850A; PHiD-CV; Pneumococcal 10-valent vaccine conjugate - GlaxoSmithKline; Streptorix™;	Bacterial pneumonia & meningitis	Vaccines
Prevenar 13	Pneumococcal vaccine conjugate 13-valent - Pfizer; 13-Valent pneumococcal conjugate vaccine - Pfizer; 13vPnC; PCV 13; PNCRM13; Pneumococcal 13-valent conjugate vaccine - Pfizer; Pneumococcal polysaccharide conjugate vaccine (13-valent, adsorbed) - Pfizer; Prevnar 13	Bacterial pneumonia & meningitis	Vaccines
PNEUMOSIL	10-valent pneumococcal conjugate vaccine - Serum Institute of India; 10-valent pneumococcal vaccine conjugate - Serum Institute of India; Pneumococcal 10-valent vaccine conjugate - Serum Institute of India; SIILPCV10	Bacterial pneumonia & meningitis	Vaccines
IS-2404 RT PCR		Buruli ulcer	Diagnostics
ftLC for Mycolactone detection		Buruli ulcer	Diagnostics
Friendly™ Aedes aegypti mosquitoes	OX5034 mosquitoes	Dengue	Biological vector control products
Dengue LFA IgG/IgM		Dengue	Diagnostics
Dengue Dual NS1 antigen IgG/IgM RDT		Dengue	Diagnostics
CDC DENV-1-4 Real-Time RT-PCR Multiplex Assay		Dengue	Diagnostics
Cholera RT-PCR	Amp Cholera Genosensor; EZDNA Amp; EZAmp Octaplex Cholera; Cholera DNA Rapid (EZCholera Amp); Cholera DNA Rapid (EZCholera Amp)	Diarrhoeal diseases	Diagnostics
Cholera lateral flow assay	Crystal VC / Crystal VC-01 rapid dipstick test; Artron Vibrio cholerae O139 and O1 Combo Test; SD BIOLINE Cholera Ag test; Cholkita; StrongStep® Kit; Cholera SMART II (Sensitive Membrane Antigen Rapid Test); Cholerae rapid test cassette; Cholera spot test; Smart Q	Diarrhoeal diseases	Diagnostics



Name	Alternative names	Disease	Product
Cholera O1 DFA Kit	Bengal DFA	Diarrhoeal diseases	Diagnostics
Bengal DFA Kit	Cholera O1 DFA Kit	Diarrhoeal diseases	Diagnostics
Dukoral	Vibrio cholerae and enterotoxigenic Escherichia coli vaccine - Crucell/sanofi-aventis; SBL Cholera Vaccine; WC/rBS; whole cell/recombinant B subunit cholera vaccine; Cholera vaccine inactivated oral - Valneva	Diarrhoeal diseases	Vaccines
EuVichol-Plus	EuVichol; Cholera vaccine inactivated oral - International Vaccine Institute	Diarrhoeal diseases	Vaccines
Shanchol	Cholera vaccine inactivated oral - International Vaccine Institute	Diarrhoeal diseases	Vaccines
Cryptosporidium II test		Diarrhoeal diseases	Diagnostics
Cryptosporidiosis lateral flow assay	Remel-Xpect; RIDA@QUICK; Crypto-Strip; Cryptosporidium EZ VUE lateral-flow test; Cryptosporidium II test; CerTest Crypto RDT	Diarrhoeal diseases	Diagnostics
Alinia	Nitazoxanide	Diarrhoeal diseases	Drugs
GIARDIA II™ test		Diarrhoeal diseases	Diagnostics
Giardia-Strip	Giardia K-SeT; Giardia Lamblia Rapid Test Cassette	Diarrhoeal diseases	Diagnostics
Giardia K-SeT	Giardia-Strip; Giardia Lamblia Rapid Test Cassette	Diarrhoeal diseases	Diagnostics
Giardia Lamblia Rapid Test Cassette	Giardia K-SeT; Giardia-Strip	Diarrhoeal diseases	Diagnostics
ProSpecT™ Giardia Microplate Assay		Diarrhoeal diseases	Diagnostics
GIARDIA/CRYPTOSPORIDIUM QUIK CHEK™ test		Diarrhoeal diseases	Diagnostics
RIDA@QUICK Cryptosporidium/Giardia Combi	CerTest Crypto + Giardia one step combo card test; ImmunoCard STAT!® C/G; Crypto/Giardia Duo-Strip; Xpect™ Giardia/Cryptosporidium Test	Diarrhoeal diseases	Diagnostics
Crypto/Giardia Duo-Strip	CerTest Crypto + Giardia one step combo card test; ImmunoCard STAT!® C/G; Xpect™ Giardia/Cryptosporidium Test; RIDA@QUICK Cryptosporidium/Giardia Combi	Diarrhoeal diseases	Diagnostics
MERIFLUOR Cryptosporidium/Giardia (MERIFLUOR C/G)		Diarrhoeal diseases	Diagnostics
ImmunoCard STAT!® C/G	CerTest Crypto + Giardia one step combo card test; Crypto/Giardia Duo-Strip; Xpect™ Giardia/Cryptosporidium Test; RIDA@QUICK Cryptosporidium/Giardia Combi	Diarrhoeal diseases	Diagnostics
VET-RPLA toxin detection kit		Diarrhoeal diseases	Diagnostics
CerTest Crypto + Giardia one step combo card test	ImmunoCard STAT!® C/G; Crypto/Giardia Duo-Strip; Xpect™ Giardia/Cryptosporidium Test; RIDA@QUICK Cryptosporidium/Giardia Combi	Diarrhoeal diseases	Diagnostics
Xpect™ Giardia/Cryptosporidium Test.	CerTest Crypto + Giardia one step combo card test; ImmunoCard STAT!® C/G; Crypto/Giardia Duo-Strip; RIDA@QUICK Cryptosporidium/Giardia Combi	Diarrhoeal diseases	Diagnostics



Name	Alternative names	Disease	Product
ROTASIIL	BRV-PV; LBRV-PV; Live attenuated bovine-human reassortant rotavirus vaccine; Rota-V-Aid™; Pentavalent rotavirus vaccine bovine reassortant - Serum Institute of India	Diarrhoeal diseases	Vaccines
Rotavac	116E - Bharat Biotech; Oral Rotavirus Vaccine 116E Live Attenuated - Bharat Biotech; ORV-116E; Rotavac - Bharat Biotech; ROTAVAC 5C; ROTAVAC 5C -F1; ROTAVAC 5C -F2; ROTAVAC 5CM; ROTAVAC 5D®; ROTAVAC®-20; Vero cell-based 116E neonatal rotavirus vaccine - Bharat Biotech; Rotavirus vaccine 116E - Bharat Biotech	Diarrhoeal diseases	Vaccines
Rotarix	89-12; GSK 444563; GSK Biologicals' liquid human rotavirus vaccine 444563; GSK rotavirus vaccine 444563; GSK vaccine 444563; HRV Liquid - GlaxoSmithKline; HRV Lyophilized - GlaxoSmithKline; Liq PCV-free HRV; RIX-4414; Rotavirus vaccine - AVANT Immunotherapeutics/GlaxoSmithKline; Rotavirus vaccine 444563 - GlaxoSmithKline; SB-444563; Rotavirus vaccine - GlaxoSmithKline	Diarrhoeal diseases	Vaccines
Rotateq	Pentavalent-rotavirus-vaccine-W179-9-Merck-and-Co; PRV-Merck-and-Co; Rotavirus-vaccine-live-oral-pentavalent-W179-9-Merck-and-Co; Rotavirus-W179-9-vaccine-Merck-and-Co; RV5; V260; Rotavirus W179-9 vaccine - Merck & Co	Diarrhoeal diseases	Vaccines
Bioline™ Lymphatic Filariasis IgG4		Helminth infections (worms & flukes)	Diagnostics
Alere Filariasis test strip		Helminth infections (worms & flukes)	Diagnostics
Brugia Rapid		Helminth infections (worms & flukes)	Diagnostics
Ov16 ELISA	Ov16	Helminth infections (worms & flukes)	Diagnostics
SD BIOLINE Onchocerciasis/LF biplex test		Helminth infections (worms & flukes)	Diagnostics
SD Onchocerciasis IgG4 monoplex lateral flow assay		Helminth infections (worms & flukes)	Diagnostics
Moxidectin		Helminth infections (worms & flukes)	Drugs
Point-of-contact circulating cathodic antigen assay	POC-CCA	Helminth infections (worms & flukes)	Diagnostics
RT PCR for Strongyloides	Verweij's PCR	Helminth infections (worms & flukes)	Diagnostics
NIE ELISA	SeroELISA Strongyloides IgG; Bordier ELISA	Helminth infections (worms & flukes)	Diagnostics
HBV surface antigen (HBsAg) RDT	Bioline HBsAg WB; Determine 2	Hepatitis B	Diagnostics
HBV surface antigen (HBsAg)	Murex HBsAg Version 3 with Murex HBsAg Confirmatory Version 3; DS-EIA-HBsAg-0,01; Auszyme Monoclonal; Genetic Systems HBsAg EIA 3.0; ABBOTT PRISM HBsAg; ABBOTT PRISM HBsAg Confirmatory	Hepatitis B	Diagnostics



Name	Alternative names	Disease	Product
HBV DNA Nucleic Acid Test (quantitative)	Abbott Realtime HBV Assay; COBAS HBV Test; Alinity m HBV; COBAS Taqman HBV Test; Aptima HBV Quant Assay	Hepatitis B	Diagnostics
HBV surface antibody (anti-HBs)		Hepatitis B	Diagnostics
HBV e antigen (HBeAg) RDT		Hepatitis B	Diagnostics
HBV e antigen (HBeAg)		Hepatitis B	Diagnostics
HBV IgM core antibody (anti-HBc)		Hepatitis B	Diagnostics
Hepatitis C antibodies and HCV core antigen (HCV cAg) (combined)	Monolisa HCV Ag-Ab ULTRA V2	Hepatitis C	Diagnostics
Hepatitis C antibody (Anti-HCV Ab) RDT	STANDARD Q HCV Ab Test; Rapid Anti-HCV Test; OraQuick HCV Rapid Antibody Test Kit; *Bioline HCV; ABBOTT HCV EIA 2.0; Chiron RIBA HCV 3.0 Strip Immunoblot Assay; Abbott Prism HCV; Ortho HCV Version 3.0 ELISA Test System	Hepatitis C	Diagnostics
Hepatitis C antibody (Anti-HCV Ab) Immunoassay	INNO-LIA HCV Score; INNOTEST HCV Ab IV;	Hepatitis C	Diagnostics
Hepatitis C core antigen (HCVcAg)	ARCHITECT HCV Ag assay	Hepatitis C	Diagnostics
Hepatitis C qualitative and quantitative nucleic acid	Abbott RealTime HCV; cobas HCV (Quantitative nucleic acid test for use on cobas 6800/8800 Systems); Xpert HCV Viral Load; Alinity m HCV; Aptima HCV Quant Dx Assay; Versant HCV 3.0 Assay (bDNA); Versant HCV RNA qualitative Assay; COBAS AMPLICOR Hepatitis C Virus (HCV) Test; AMPLICOR HCV Test, v2.0; UltraQual HCV RT-PCR Assay; COBAS AmpliScreen HCV Test; Procleix HIV-1/HCV Assay; Procleix Ultrio Assay; Procleix Ultrio Plus Assay; Hepatitis C Virus (HCV) Reverse Transcription (RT) Polymerase Chain Reaction (PCR) Assay	Hepatitis C	Diagnostics
Hepatitis C Genotype Assay	Abbott RealTime HCV Genotype II	Hepatitis C	Diagnostics
Ravidasvir	ASC-16; Asclevir; BI-238630; C5; PPI-668	Hepatitis C	Drugs
CD4 cell enumeration point-of-care flow cytometry platform	VISITECT CD4 Advanced Disease; CyFlow Counter System with CD4 easy count kit and CD4% easy count kit; Pima CD4 Test	HIV/AIDS	Diagnostics
CD4 cell enumeration flow cytometry	Aquios CL flow cytometer; BD FACSPresto Near-Patient CD4 Counter with BD CD4%CD4/Hb Cartridge and BD FACSPresto Cartridges Kit; BD FACSCount Instrument System with FACSCount Control Kit and BD FACSCount Reagent Kit (Absolute CD4+, CD8+, and CD3+ Counts); BD FACSCount Instrument System with FACSCount Control Kit and BD FACSCount CD4 Reagent Kit (Absolute and Percentage CD4+ Counts)	HIV/AIDS	Diagnostics



Name	Alternative names	Disease	Product
HIV 1/2 antibody (anti-HIV Ab) RDT	TrinScreen™; MERISCREEN HIV 1-2 WB; STANDARD Q HIV 1/2 Ab 3-Line Test; First Response HIV 1-2.O Card test (Version 2.0); ONE STEP Anti-HIV (1&2) Test; One Step HIV1/2 Whole Blood/Serum/Plasma Test; Genie Fast HIV 1/2; Diagnostic kit for HIV (1+2) antibody (colloidal gold) V2; Determine HIV Early Detect; DPP HIV 1/2 Assay; OraQuick HIV 1/2 Rapid Antibody Test; Rapid Test for Antibody to Human Immunodeficiency Virus (HIV) (Colloidal Gold Device); SURE CHECK HIV 1/2 Assay; ABON HIV 1/2/O Tri-Line Human Immunodeficiency Virus Rapid Test Device; INSTI HIV-1/HIV-2 Antibody Test; Biotline HIV-1/2 3.0; Uni-Gold HIV; HIV 1/2 STAT-PAK; Determine HIV-1/2; STANDARD Q HIV/Syphilis Combo Test; *First Response HIV1+2/Syphilis Combo Card Test; *Biotline HIV/Syphilis Duo; Reveal Rapid HIV-1 Antibody Test; DPP HIV-Syphilis System; ADVIA Centaur HIV 1/O/2 Rapid Test; Multispot HIV-1/HIV-2 Rapid Test; Chembio DPP HIV 1/2 Assay; Uni-Gold™ Recombigen® HIV-1/2	HIV/AIDS	Diagnostics
HIV 1/2 antibody (anti-HIV Ab) RDT for self-testing	CheckNOW HIV SELF TEST; Mylan HIV Self Test; INSTI HIV Self Test; SURE CHECK HIV Self-Test; OraQuick HIV Self-Test; OraSure HIV-1 Oral Specimen Collection Device; First Response HIV 1-2.0 Card Test (Self Test); Morcheck 3rd generation HIV OMT (Oral Mucosal Transudate) Kit.	HIV/AIDS	Diagnostics
HIV 1/2 antibody (anti-HIV Ab) immunoassay	AiD anti-HIV 1+2 ELISA; INNO-Lia HIV I/II Score; Geenius HIV 1/2 Confirmatory Assay with Geenius HIV1/2 Confirmatory Controls; MP Diagnostics HIV Blot 2.2; Avioq HIV-1 Microelisa System; Maxim (Calypse) HIV-1 Urine EIA; Cambridge Biotech HIV-1 Urine Western Blot Kit; VioOne HIV Profile Supplemental Assay; ABBOTT Prism HIV O Plus assay; Genetic Systems HIV-1/HIV-2 Plus O EIA; VITROS HIV-1/HIV-2 Reagent Pack and Calibrator	HIV/AIDS	Diagnostics
Combined HIV antibody/p24 antigen (anti-HIV/p24 Ag) Immunoassay	Genscreen ULTRA HIV Ag-Ab; Murex HIV Ag/Ab Combination; DS-EIA-HIV-AGAB-SCREEN; Elecsys HIV Duo; Elecsys HIV Combi PT; Vitros HIV-1/HIV-2 Reagent Pack and Calibrator; BioPlex 2200 HIV Ag-Ab Assay; ADVIA Centaur HIV Ag/Ab Combo (CHIV) Assay; ARCHITECT HIV Ag/Ab Combo; Alinity i HIV Ag/Ab Combo Assay; GS HIV Ag/Ab Combo EIA/ Alere Determine™ HIV-1/2 Ag/Ab Combo	HIV/AIDS	Diagnostics
HIV qualitative nucleic acid test	Xpert HIV-1 Qual Assay; *m-PIMA HIV-1/2 Detect; COBAS AmpliPrep/COBAS TaqMan HIV-1 Qualitative Test, version 2.0 (TaqMan 48); COBAS AmpliPrep/COBAS TaqMan HIV-1 Qualitative Test, version 2.0 (TaqMan 96); Abbott RealTime HIV-1 Qualitative (Manual); Abbott RealTime HIV-1 Qualitative (m2000sp); APTIMA HIV-1 RNA Qualitative Assay	HIV/AIDS	Diagnostics
HIV quantitative nucleic acid test	cobas HIV-1 Quantitative nucleic acid test for use on the cobas4800 System; cobas HIV-1 Quantitative nucleic acid test for use on the cobas 6800/8800 Systems; m-PIMA HIV-1/2 VL; Aptima HIV-1 Quant Dx Assay; Xpert HIV-1 Viral Load; COBAS AmpliPrep/COBAS TaqMan HIV-1 Test, version 2.0 (TaqMan 48); COBAS AmpliPrep/COBAS TaqMan HIV-1 Test, version 2.0 (TaqMan 96); NucliSENS EasyQ HIV-1 v2.0 (Automated); NucliSENS EasyQ HIV-1 v2.0 (Semi-Automated); Abbott RealTime HIV-1 (Manual); Abbott RealTime HIV-1 (m2000sp); Abbott RealTime HIV-1 (m24sp); Alinity m HIV-1; APTIMA HIV-1 Quant Dx Assay; APTIMA HIV-1 Quant Assay; Versant HIV-1 RNA 3.0 (bDNA)	HIV/AIDS	Diagnostics
HIV-1 Genotyping Assay	Santosa SQHIV-1 Genotyping Assay; ViroSeq HIV-1 Genotyping System; Trugene HIV-1 Genotyping Kit and Open Gene DNA Sequencing System	HIV/AIDS	Diagnostics
Combined HIV antibody/p24 antigen (anti-HIV/p24 Ag)		HIV/AIDS	Diagnostics



Name	Alternative names	Disease	Product
Combined HIV antibody/p24 antigen (anti-HIV/p24 Ag) RDT		HIV/AIDS	Diagnostics
HIV qualitative nucleic acid test POC		HIV/AIDS	Diagnostics
Dapivirine Vaginal Ring	DAP, DPV, DVR, DVR-004, Ring-004, TMC-120, dapivirine IVR, dapivirine intravaginal ring, DPV-VR	HIV/AIDS	Microbicides
Chagas' IgG/IgM LFA	STAT-PAK assay/Chagas Detect™ Plus/Chagas Quick Test/Simple Chagas WB/WL-Check Chagas/Inbios CDP/Inbios Trypanosoma Detect	Kinetoplastid diseases	Diagnostics
Benznidazole	Abarax (brand name)	Kinetoplastid diseases	Drugs
Kalazar Detect ELISA		Kinetoplastid diseases	Diagnostics
CL Detect Rapid Test		Kinetoplastid diseases	Diagnostics
RDT rk39	IT-LEISH Kit, InBios Kalazar Detect, Onsite Leishmania AB Rapid Test	Kinetoplastid diseases	Diagnostics
RDT rk28		Kinetoplastid diseases	Diagnostics
DAT		Kinetoplastid diseases	Diagnostics
Liposomal Amphotericin B	AmBisome	Kinetoplastid diseases	Drugs
Miltefosine	Impavido	Kinetoplastid diseases	Drugs
Trypanolysis		Kinetoplastid diseases	Diagnostics
Serological PoC lateral flow test for gHAT	SD BIOLOINE HAT ; HAT Sero K-SeT	Kinetoplastid diseases	Diagnostics
Fexinidazole		Kinetoplastid diseases	Drugs
Interceptor G2	Alpha-cypermethrin, Chlorfenapyr	Malaria	Chemical vector control products
DuraNet Plus	Alpha-cypermethrin, Piperonyl Butoxide (PBO)	Malaria	Chemical vector control products
VEERALIN	Alpha-cypermethrin, Piperonyl Butoxide (PBO)	Malaria	Chemical vector control products
Royal Guard	Alpha-cypermethrin, Pyriproxyfen	Malaria	Chemical vector control products
VectoMax FG	Bacillus sphaericus strain ABTS-1743, Bacillus thuringiensis subsp. Israelensis strain AM65-52	Malaria	Chemical vector control products
VectoBac	Bacillus thuringiensis subsp. Israelensis strain AM65-52. Multiple products: VectoBac GR, VectoBac WG	Malaria	Chemical vector control products
FastM	Bendiocarb	Malaria	Chemical vector control products
Ficam	Bendiocarb	Malaria	Chemical vector control products



Name	Alternative names	Disease	Product
Bistar 10WP	Bifenthrin	Malaria	Chemical vector control products
Klypson 500 WG	Clothianidin	Malaria	Chemical vector control products
SumiShield 50 WG	Clothianidin	Malaria	Chemical vector control products
2GARD	Clothianidin, Deltamethrin	Malaria	Chemical vector control products
Fludora Fusion	Clothianidin, Deltamethrin	Malaria	Chemical vector control products
Gokilaht-S 5EC	d,d,trans-Cyphenothrin	Malaria	Chemical vector control products
K-Othrine Polyzone	Deltamethrin. Multiple products: K-Othrine Polyzone, K-Othrine WG250	Malaria	Chemical vector control products
PALI 250 WG	Deltamethrin	Malaria	Chemical vector control products
Aqua K-Othrine	Deltamethrin	Malaria	Chemical vector control products
SEINTRIN 20EW	Deltamethrin	Malaria	Chemical vector control products
Panda Net 2.0	Deltamethrin	Malaria	Chemical vector control products
PermaNet 2.0	Deltamethrin	Malaria	Chemical vector control products
Reliefnet Reverte	Deltamethrin	Malaria	Chemical vector control products
Tsara (pyrethroid only)	Deltamethrin. Multiple products: Tsara, Tsara Soft	Malaria	Chemical vector control products
Yahe LN	Deltamethrin	Malaria	Chemical vector control products
Yorkool LN	Deltamethrin	Malaria	Chemical vector control products
PermaNet 3.0	Deltamethrin, Piperonyl Butoxide (PBO)	Malaria	Chemical vector control products
Tsara (pyrethroid+PBO)	Deltamethrin, Piperonyl Butoxide (PBO). Multiple products: Tsara Boost, Tsara Plus	Malaria	Chemical vector control products
Diflubenzuron	Diflubenzuron. Multiple products: Device 25WP, Dimilin GR, Du-Dim 2 DT	Malaria	Chemical vector control products
Vectron	Etofenprox. Multiple products: Vectron 20WP, Vectron 10EW	Malaria	Chemical vector control products



Name	Alternative names	Disease	Product
Fludora Co-Max	Flupyradifurone, Transfluthrin	Malaria	Chemical vector control products
Cielo ULV	Imidacloprid, Prallethrin	Malaria	Chemical vector control products
ICON (IRS)	Lambda-Cyhalothrin. Multiple products: ICON 10 CS, ICON WP	Malaria	Chemical vector control products
REVIVAL	Lambda-Cyhalothrin. Multiple products: REVIVAL 100 CS, REVIVAL 100WP	Malaria	Chemical vector control products
ICON CS - ITN Kit	Lambda-Cyhalothrin	Malaria	Chemical vector control products
Icon (spatial repellent)	Lambda-Cyhalothrin. Multiple products: Icon 2.5 EC, Icon 5 EC	Malaria	Chemical vector control products
REVIVAL 25 EC	Lambda-Cyhalothrin	Malaria	Chemical vector control products
Fyfanon	Malathion. Multiple products: Fyfanon EW Insecticide, Fyfanon ULV Mosquito Insecticide	Malaria	Chemical vector control products
Mosquiron 100EC	Novaluron	Malaria	Chemical vector control products
Aquatain AMF	PDMS (Polydimethylsiloxane)	Malaria	Chemical vector control products
OLYSET Net	Permethrin	Malaria	Chemical vector control products
OLYSET PLUS	Permethrin, Piperonyl Butoxide (PBO)	Malaria	Chemical vector control products
Aqua Reslin Super	Permethrin, Piperonyl Butoxide (PBO), S-Bioallethrin	Malaria	Chemical vector control products
Actellic	Pirimiphos-methyl. Multiple products: Actellic 300CS, Actellic EC	Malaria	Chemical vector control products
LIMITOR 5 GR	Pyriproxyfen	Malaria	Chemical vector control products
Sumilarv	Pyriproxyfen. Multiple products: Sumilarv 0.5G, Sumilarv 2MR	Malaria	Chemical vector control products
MOZKILL 120 SC	Spinosad	Malaria	Chemical vector control products
Spinosad	Spinosad. Multiple products: Spinosad 0.5% GR, Spinosad 20.6% EC, Spinosad 25 Extended Release GR, Spinosad 7.48% DT, Spinosad Monolayer DT	Malaria	Chemical vector control products
Abate	Temephos. Multiple products: Abate 1 SG, Abate 500 EC	Malaria	Chemical vector control products
Temeguard	Temephos	Malaria	Chemical vector control products



Name	Alternative names	Disease	Product
Fendona	Alpha-cypermethrin. Multiple products: Fendona 5 WP, Fendona 10 SC, Fendona 6 SC	Malaria	Chemical vector control products
RUBI	Alpha-cypermethrin. Multiple products: RUBI 100 SC, RUBI 100 WP, RUBI 250 WB-SB, RUBI 50 SC, RUBI 50 WP	Malaria	Chemical vector control products
DuraNet LN	Alpha-cypermethrin	Malaria	Chemical vector control products
Interceptor	Alpha-cypermethrin	Malaria	Chemical vector control products
MAGNet	Alpha-cypermethrin	Malaria	Chemical vector control products
MiraNet	Alpha-cypermethrin	Malaria	Chemical vector control products
Royal Sentry	Alpha-cypermethrin. Multiple products: Royal Sentry, Roayl Sentry 2.0	Malaria	Chemical vector control products
SafeNet	Alpha-cypermethrin	Malaria	Chemical vector control products
Test for Glucose-6-phosphate dehydrogenase deficiency		Malaria	Diagnostics
Plasmodium spp. (multiple) antigens Test	One Step test for Malaria Pf/Pan Ag MERISCREEN Malaria Pf/Pan Ag; parascreeen - Rapid test for Malaria Pan/Pf; Falcivax - Rapid test for Malaria Pv/Pf; STANDARD Q Malaria P.f/P.v Ag Test; STANDARD Q Malaria P.f Pan Ag Test; First Response Malaria Ag. P.f. / P.v. Card Test; *Bioline Malaria Ag P.f/P.v; One Step test for Malaria Pf/Pv Ag MERISCREEN Malaria Pf/Pv Ag; Bioline Malaria Ag P.f/P.v; CareStart Malaria HRP2/pLDH (Pf/PAN) COMBO; CareStart Malaria HRP2/pLDH (Pf/Pv) COMBO; CareStart Malaria pLDH (PAN); Bioline Malaria Ag P.f/Pan	Malaria	Diagnostics
Arakoda™	Tafenoquine	Malaria	Drugs
Plasmodium spp. (P. falciparum) antigen Test	Paracheck Pf - Rapid Test for P. Falciparum Malaria Device (Ver. 3); STANDARD Q Malaria P.f Ag Test; AdvDx Malaria Pf Rapid Malaria Ag Detection Test; *NxTek Eliminate Malaria Pf; First Response Malaria Antigen P. falciparum (HRP2) Card Test; Bioline Malaria Ag P.f (HRP2/pLDH); CareStart Malaria HRP2 (Pf); CareStart Malaria HRP2/pLDH (Pf); ParaHIT f Ver. 1.0 Rapid Test for P.falciparum Malaria Device; Bioline Malaria Ag P.f	Malaria	Diagnostics
Pyramax®	Artesunate-Pyronaridine; M-PA01; PANDA	Malaria	Drugs
Pyramax® granules	Artesunate/Pyronaridine	Malaria	Drugs
Coartem®	Artemether/Lumefantrine; Benflumetol; CGP 56697; Co-artemether; COA566; Coartem; Coartem Dispersible; Exafal; Lumefantrine/artemether; Riamet	Malaria	Drugs
Coartem® Dispersible	Artemether/Lumefantrine	Malaria	Drugs
ASAQ Winthrop®	Amodiaquine-Artesunate; Artesunate Amodiaquine Winthrop; AS/AQ; ASAQ; ASAQ Winthrop; Coarsucam	Malaria	Drugs
ASMQ	Artesunate-mefloquine; ASMQ FDC; Mefliam Plus; Mefloquine/artesunate	Malaria	Drugs



Name	Alternative names	Disease	Product
Eurartesim®	Artekin; Eurartekin; Eurartesim; Piperaquine/dihydroartemisinin	Malaria	Drugs
Eurartesim® dispersible	Dihydroartemisinin/Piperaquine	Malaria	Drugs
SPAQ-CO™ dispersible	Amodiaquine + Pyrimethamine/Sulfadoxine (SP)	Malaria	Drugs
Artesun®	Artesunate intravenous project - MMV00/1013; Artesunate IV; Artesunate IV project - MMV00/1013; Intravenous artesunate; IV artesunate; Nuartez	Malaria	Drugs
Artesunate Rectocaps	Rectal artesunate; Artecap	Malaria	Drugs
Mosquirix	257049; Circumsporozoite protein hepatitis-B surface antigen fusion protein- GlaxoSmithKline; CSP-HBsAg - GlaxoSmithKline; CSP-HBsAg/SBAS2-GlaxoSmithKline; FSV-1-malaria-vaccine-GlaxoSmithKline; GSK-257146; GSK-RTS,S/AS01; GSK257049; Malaria vaccine 257049 - GlaxoSmithKline; Mosquirix; Plasmodium falciparum circumsporozoite protein/HBsAg subunit vaccine - GlaxoSmithKline; Plasmodium falciparum CSP/HBsAg - GlaxoSmithKline; Plasmodium falciparum CSP/HBsAg subunit vaccine - GlaxoSmithKline; Plasmodium falciparum malaria vaccine 257049; Profilam; QS 21 stimulon adjuvanted malaria vaccine - Agenus/GlaxoSmithKline; RTS,S; RTS,S/AS; RTS,S/AS01B; RTS,S/AS01E; RTS,S/AS02; RTS,S/AS02A; RTS,S/AS02D; SB-257049; GSK 257049	Malaria	Vaccines
Krintafel™	Kozenis; Tafenoquine	Malaria	Drugs
Typhoid IgG/IgM rapid test	ACCUTELL® Typhoid Rapid Test Cassette; OnsiteTyphoid IgG/IgM (CTK Biotech, Inc); Testsea disease test Typ Typhoid IgG/IgM (Hangzhou Testsea Biotechnology); Typhoid IgG/IgM rapid test cassette (WB/S/P) (Hangzhou Clongene Biotech Co); Typhoid IgG & IgM (Swedinc AB); TYPT Typhoid AB IgM/IgG test (Tri-line) (Qingdao Hightop Biotech Co); Typhoid AB IgM/IgG rapid test (Colloidal gold method) (Qingdao Hightop Biotech); Rapid Typhoid test (Pantest SA); VC Salmonella Typhoid rapid tests (Sure Bio-Tech USA Co., Ltd); Typhoid IgG/IgM rapid test cassette (Spectrum for Diagnostic Industries); Typhoid IgG/IgM (Shenzhen Bioeasy Biotechnology); Typhoid IgG/IgM (BioSino Bio-Technology and Science Inc); Nadal Typhoid IgG/IgM test (nal von minden GmbH); Typhoid AV IgG/IgM rapid test cassette (Mexacare Diagnostics GmbH); Aria Typhoid IgG/IgM combo rapid test (Medtek); Is It Typhoid IgG/IgM (Medsource Ozone Biomedicals); Assure Typhoid IgG/IgM rapid test (CE) (MP Biomedicals)	Salmonella infections	Diagnostics
Typhoid IgM rapid test (Inhibition Magnetic Binding Immunoassay)	TUBEX® TF (IDL Biotech AB)	Salmonella infections	Diagnostics
Typhoid IgM rapid test	Test-it Typhoid IgM (LifeAssay Diagnostics); Enterocheck WB®; Typhidot Rapid IGM (Reszon Diagnostics International)	Salmonella infections	Diagnostics
Typhoid IgG dipstick test	Multi-Test Dip-S-Tick (PanBio Inc)	Salmonella infections	Diagnostics
S. typhi and paratyphi antigen test	S. typhi/para typhi ABC (Typhoid) antigen rapid test (Biocan Diagnostics Inc); S.typhi/P.typhoid Antigen Typhoid Test kit; Is It Typhoid Antigen (Medsource Ozone Biomedicals); Diaquick S. typhi/paratyphi Ag cassette (Dialab)	Salmonella infections	Diagnostics



Name	Alternative names	Disease	Product
TYPHIBEV	NVGH glycoconjugate vaccine against <i>S. typhi</i> - Novartis; NVGH Vi-CRM197 vaccine; Salmonella monovalent typhi vaccine - NVGH; Typhoid conjugate vaccine - Novartis; Vi-CRM197; Vi-CRM197 glycoconjugated vaccine; Vi-CRM197 vaccine; Typhoid conjugate vaccine (Vi-CRM197) - Biological E/Novartis Vaccines Institute for Global Health	Salmonella infections	Vaccines
Typbar-TCV	Typhoid conjugate vaccine (Typbar-TCV) - Bharat Biotech; Typhoid Vi capsular polysaccharide tetanus toxoid protein conjugate vaccine (Typbar-TCV) - BBIL; Typhoid Vi capsular polysaccharide-tetanus toxoid conjugate vaccine (Typbar TCV) - Bharat Biotech; Typhoid Vi polysaccharide-TT conjugate vaccine - Bharat Biotech; Typhoid conjugate vaccine - Bharat Biotech	Salmonella infections	Vaccines
Ivermectin	Stromectol	Scabies	Drugs
Xpert MTB/RIF and Xpert MTB/RIF Ultra assays	Xpert® MTB/RIF and Xpert® MTB/RIF Ultra (Cepheid)	Tuberculosis	Diagnostics
Truenat™	Truenat™ MTB; Truenat™ MTB Plus; Truenat™ MTB Rif Dx	Tuberculosis	Diagnostics
Moderate complexity automated NAATs	Abbott RealTime MTB and Abbott RealTime MTB RIF/INH (Abbott); BD MAX™ MDR-TB (Becton Dickinson); cobas® MTB and cobas MTB-RIF/INH (Roche); FluoroType® MTBDR and FluoroType® MTB (Hain Lifescience/Bruker)	Tuberculosis	Diagnostics
TB-LAMP	Loopamp™ MTBC Detection Kit	Tuberculosis	Diagnostics
Lateral flow urine lipoarabinomannan assay	Determine™ TB LAM Ag	Tuberculosis	Diagnostics
Low complexity automated NAATs	Xpert® MTB/XDR (Cepheid)	Tuberculosis	Diagnostics
First-line line probe assays (LPAs)	GenoType® MTBDRplus v1 and v2; GenoType® MTBDRsl (Hain Lifescience/Bruker); Genoscholar™ NTM+MDRTB II; Genoscholar™ PZA-TB II (Nipro)	Tuberculosis	Diagnostics
High complexity reverse hybridization-based NAATs	Genoscholar PZA-TB II	Tuberculosis	Diagnostics
Interferon gamma release assays (IGRA)	WANTAI TB-IGRA; T-SPOT®.TB 8 with T-cell Select; T-SPOT®.TB 8 with T-cell Xtend; QuantiFERON®-TB Gold In-Tube; QuantiFERON®-TB Gold Plus; QIArearch™ QuantiFERON®-TB; STANDARD™ E TB-Feron ELISA	Tuberculosis	Diagnostics
Second-line line probe assays (LPAs)	GenoType®v2; Genoscholar™ NTM+MDRTB II	Tuberculosis	Diagnostics
Bedaquiline		Tuberculosis	Drugs
Pretomanid		Tuberculosis	Drugs
Delamanid		Tuberculosis	Drugs
Rifampicin/Isoniazid/Pyrazinamide dispersable pediatric		Tuberculosis	Drugs



Name	Alternative names	Disease	Product
Linezolid	Zyvox (brand name)	Tuberculosis	Drugs
Moxifloxacin	Avelox (brand name)	Tuberculosis	Drugs

Appendix 2. List of products approved for emerging infectious diseases

Name	Alternative names	Disease	Product
RealStar® Lassa Virus RT-PCR Kit 2.0		Arenaviral haemorrhagic fevers (including Lassa fever) - Lassa fever - Diagnostics	Diagnostics
Lassa Virus (LV) Real Time RT-PCR Kit		Arenaviral haemorrhagic fevers (including Lassa fever) - Lassa fever - Diagnostics	Diagnostics
LIPSGENE CCHF Kit		Bunyaviral diseases (including CCHF, RVF, SFTS) - Crimean-Congo Haemorrhagic Fever (CCHF) - Diagnostics	Diagnostics
Congo-Crimea Real-TM		Bunyaviral diseases (including CCHF, RVF, SFTS) - Crimean-Congo Haemorrhagic Fever (CCHF) - Diagnostics	Diagnostics
AmpliSens CCHFV-FRT PCR kit		Bunyaviral diseases (including CCHF, RVF, SFTS) - Crimean-Congo Haemorrhagic Fever (CCHF) - Diagnostics	Diagnostics
IIFT and IFA BIOCHIPS		Bunyaviral diseases (including CCHF, RVF, SFTS) - Crimean-Congo Haemorrhagic Fever (CCHF) - Diagnostics	Diagnostics
RealStar CCHFV RT-PCR Kit		Bunyaviral diseases (including CCHF, RVF, SFTS) - Crimean-Congo Haemorrhagic Fever (CCHF) - Diagnostics	Diagnostics
FTD CCHFV		Bunyaviral diseases (including CCHF, RVF, SFTS) - Crimean-Congo Haemorrhagic Fever (CCHF) - Diagnostics	Diagnostics
Crimean-Congo Hemorrhagic Fever Virus (CCHFV) Real Time RT-PCR Kit		Bunyaviral diseases (including CCHF, RVF, SFTS) - Crimean-Congo Haemorrhagic Fever (CCHF) - Diagnostics	Diagnostics
RealStar RVFV RT-PCR		Bunyaviral diseases (including CCHF, RVF, SFTS) - Rift Valley Fever (RVF) - Diagnostics	Diagnostics
RVFV RT-PCR reagent		Bunyaviral diseases (including CCHF, RVF, SFTS) - Rift Valley Fever (RVF) - Diagnostics	Diagnostics
IFA RVFV IIFT IgG		Bunyaviral diseases (including CCHF, RVF, SFTS) - Rift Valley Fever (RVF) - Diagnostics	Diagnostics
IFA RVFV IIFT IgM		Bunyaviral diseases (including CCHF, RVF, SFTS) - Rift Valley Fever (RVF) - Diagnostics	Diagnostics
ELISA RVFV IgM/IgG		Bunyaviral diseases (including CCHF, RVF, SFTS) - Rift Valley Fever (RVF) - Diagnostics	Diagnostics



Name	Alternative names	Disease	Product
Chikungunya IgG/IgM Rapid Diagnostic Test kit	Immuno-Rapido Chikungunya IgG/IgM; Immunoassay lvd Chikungunya Rapid Diagnostic Test kit; ichroma CH IKV IgG/IgM; OneStep Chikungunya IgG/IgM Combo RapiCard InstaTest; NOV Atest Chikungunya IgG/IgM Rapid Test Cassette; TruQuick CHIKV IgG/ IgM 40 T; Chikungunya test kit QuickProfile; Chikungunya IgG/IgM Rapid test; Chikungunya IgG/IgM Rapid Test Cassette; Chikungunya IgG/IgM Ab Rapid Test; DPP ZCD IgM/IgG; MedTest Chikungunya ML-02; Chikungunya IgM/IgG; OPP Chikungunya IgM/IgG assay; STANDARD Q Chikungunya IgM/ IgG; Chikungunya IgG/IgM ECO Test	Chikungunya - Diagnostics	Diagnostics
OL Combo Chikungunya/NS1		Chikungunya - Diagnostics	Diagnostics
OL Combo Chikungunya Dengue IgG/IgM		Chikungunya - Diagnostics	Diagnostics
STANDARD Q Arbo Panel I (Z/D/C/Y) RDT		Chikungunya - Diagnostics	Diagnostics
Biocan Zika IgG/ IgM Ab, Dengue IgG/IgM & NS I Ag & Chikungunya IgG/ IgM Ab Combo Test		Chikungunya - Diagnostics	Diagnostics
E1-Ag Test		Chikungunya - Diagnostics	Diagnostics
Liferiver CHIKV real time PCR kit		Chikungunya - Diagnostics	Diagnostics
RealStar® Chikungunya RT-PCR kit		Chikungunya - Diagnostics	Diagnostics
CTK Biotech Chikungunya Real time PCR Test		Chikungunya - Diagnostics	Diagnostics
EurobioPlex CHIKV/DENV		Chikungunya - Diagnostics	Diagnostics
CTK Biotech ZIKV, DENV, CHIKV Real time PCR Test		Chikungunya - Diagnostics	Diagnostics
VIASURE multiplex ZIKV, DENV and CHIKV		Chikungunya - Diagnostics	Diagnostics
VIASURE Chikungunya Virus Real Time PCR Detection Kit		Chikungunya - Diagnostics	Diagnostics
FTD Tropical Fever core (DENV/CHIKV/WNV/Plasmodium/Rickettsia/Salmonella/Leptospira) real time PCR kit		Chikungunya - Diagnostics	Diagnostics
Vircell ZIKV, DENV & CHIKV real time PCR kit		Chikungunya - Diagnostics	Diagnostics
CHIKV IgM & IgG ELISA kit	Chikungunya Virus IgG & IgM capture ELISA Kit, Human Anti-CHIKV IgG & IgM ELISA Kit, CHIKV IgG & IgM ELISA Test CE, Anti-CHIKV ELISA (IgG & IgM), Chikungunya Virus IgG & IgM ELISA, Chikungunya IgG & IgM μ -capture ELISA	Chikungunya - Diagnostics	Diagnostics
Chikungunya IgM Spot Test	Mytest One Step Chikungunya IgM Test kit; Anand Chikungunya IgM One Step; BHAT Chikungunya IgM Spot Test	Chikungunya - Diagnostics	Diagnostics
Anti CHIKV IFFT		Chikungunya - Diagnostics	Diagnostics
Chikungunya IgM Rapid Test Kit	Chikungunya IgM ECO Test; Intermedical Chikungunya IgM Rapid Test; Advantage Chikungunya IgM Card; JP Biogen Chikungunya IgM	Chikungunya - Diagnostics	Diagnostics



Name	Alternative names	Disease	Product
	TES; HWTAI Rapid chikungunya test; Teco Diagnostics Chikungunya IgM; SD Biotec Chikungunya IgM; CTK On Site Chikungunya IgM Combo Rapid Test; Bahiafarma Chikungunya IgM RDT		
Ebanga	mAb114; Ansuvimab-zykl	Filoviral diseases (including Ebola, Marburg) - Ebola - Biologics	Biologics
Inmazeb	REGN-EB3	Filoviral diseases (including Ebola, Marburg) - Ebola - Biologics	Biologics
Ebola Zaire/Ebola Sudan, Marburg virus RT-PCR Kit		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
Ebolavirus IgG/IgM Ab Rapid Test		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
eZYSCREEN®		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
OraQuick® Ebola Rapid Antigen Test		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
FilmArray BioThreat-E test / AmpliSens EBOV Zaire 1-FRT PCR kit		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
FilmArray NGDS BT-E Assay		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
STANDARD™ Q Ebola Zaire Ag		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
Xpert Ebola Assay		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
Liferiver™ - Ebola Virus (EBOV) Real Time RT-PCR Kit		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
RealStar® Filovirus Screen RT-PCR Kit 1.0		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
RealStar® Ebolavirus RT-PCR Kit 1.0		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
EZ1 Real-time RT-PCR Assay (DoD)		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
CDC Ebola Virus NP Real-time RT-PCR Assay (CDC)		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
CDC Ebola Virus VP40 Real-time RT-PCR Assay (CDC)		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
LightMix Ebola Zaire rRT-PCR Test		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
Idylla Ebola Virus Triage Test		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics



Name	Alternative names	Disease	Product
DPP Ebola Antigen System		Filoviral diseases (including Ebola, Marburg) - Ebola - Diagnostics	Diagnostics
Ad5-EBOV		Filoviral diseases (including Ebola, Marburg) - Ebola - Vaccines	Vaccines
GamEvac-Lyo		Filoviral diseases (including Ebola, Marburg) - Ebola - Vaccines	Vaccines
GamEvac-Combi		Filoviral diseases (including Ebola, Marburg) - Ebola - Vaccines	Vaccines
ERVEBO	BPSC-1001; Ebola vaccine - Merck & Co; Ebola virus vaccine - Lumos Pharma; Public Health Agency of Canada's Ebola vaccine; rVSV delta G ZEBOV GP; rVSV-EBOV; rVSV-S-GP/VP40; rVSV-ZEBOV; rVSV-ZEBOV-GP; rVSVΔG-ZEBOV-GP; V-920; V920 Ebola Zaire Vaccine; VSV delta G ZEBOV; VSV delta-ZEBOV; VSV-EBOV; VSV-ZEBOV; VSVG-ZEBOV; rVSV S GP/VP40	Filoviral diseases (including Ebola, Marburg) - Ebola - Vaccines	Vaccines
Zabdeno + Mvabea (2-dose heterologous prime-boost vaccine regimen)	Zabdeno: Ad26 EBOV vaccine - NIH/Crucell; Ad26-ZEBOV - Crucell/NIH; Ad26-ZEBOV - NIH/Crucell; Ad26.ZEBOV; Ad26.ZEBOV - NIH/Crucell; Ebola virus vaccine - Crucell/NIH; Ebola virus vaccine - NIH/Crucell; VAC-52150; Ad26 EBOV vaccine - Crucell/NIH MVABEA: Ebola Marburg virus vaccine - Bavarian Nordic; Marburg Ebola virus vaccine - Bavarian Nordic; Modified Vaccinia Ankara Bavarian Nordic Marburg Ebola vaccine; MVA-BN Filo; MVA-BN-EBOV-MARV; MVA-BN-MARV-EBOV; MVA-BN@Filo vaccine;	Filoviral diseases (including Ebola, Marburg) - Ebola - Vaccines	Vaccines
Zika virus IgM antibody detection immunoassay	ZIKV Detect 2.0 IgM Capture ELISA; ADVIA Centaur Zika test; LIAISON XL Zika Capture IgM Assay II; CDC Zika Immunoglobulin M (IgM) Antibody Capture Enzyme-Linked Immunosorbent Assay	Zika - Diagnostics	Diagnostics
Zika virus IgM antibody detection RDT	DPP Zika IgM Assay System	Zika - Diagnostics	Diagnostics
Zika qualitative RNA Nucleic Acid Test	AccuPower® ZIKV (DENV, CHIKV) Multiplex Real-Time RT-PCR Kit; careGENETM Zika Virus RT-PCR kit; Liferiver Zika Virus (ZIKV) Real Time RT-PCR Kit; RealStar® Zika Virus RT-PCR Kit 1.0; CDC Trioplex Real-time RT-PCR Assay (Trioplex rRT-PCR); Zika Virus RNA Qualitative Real-Time RT-PCR; Aptima Zika Virus assay; Zika Virus Real-time RT-PCR Test; VERSANT Zika RNA 1.0 Assay (kPCR) Kit; Sentosa® SA ZIKV RT-PCR Test; Zika Virus Detection by RT-PCR Test (ARUP Laboratories); Abbott RealTime ZIKA; Zika ELITe MGB Kit U.S.; Gene-RADAR® Zika Virus Test; TaqPath Zika Virus Kit; CII-ArboViroPlex rRT-PCR assay	Zika - Diagnostics	Diagnostics



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