



The Global Health Impact Index

Ranking Explanation

Reference Table

Drug Abbreviation

1. AL
2. AS+AQ
3. AS+MQ
4. AS+SP
5. DHA-PPQ
6. Amk
7. Cm
8. Cs
9. E
10. Eto
11. Gfx
12. H
13. Km
14. Lfx
15. Mfx
16. Ofx
17. PAS
18. R
19. S
20. Z
21. 3TC
22. ABC
23. ATV/r
24. AZT
25. ddl
26. d4T
27. EFV
28. FTC
29. LPV/r
30. NFV
31. NVP
32. TDF

Drug Name

1. Artemether-Lumefantrine
2. Artesunate + Amodiaquine
3. Artesunate + Mefloquine
4. Artesunate + Sulfadoxine-Pyrimethamine
5. Dihydroartemisinin-Piperaquine
6. Amikacin
7. Capreomycin
8. Cycloserine
9. Ethambutol
10. Ethionamide
11. Gatifloxacin
12. Isoniazid
13. Kanamycin
14. Levofloxacin
15. Moxifloxacin
16. Ofloxacin
17. 4-aminosalicylic acid
18. Rifampicin
19. Streptomycin
20. Pyrazinamide
21. Lamivudine
22. Abacavir
23. Atazanavir/ritonavir
24. Zidovudine
25. Didanosine
26. Stavudine
27. Efavirenz
28. Emtricitabine
29. Lopinavir with a ritonavir boost
30. Nelfinavir
31. Nevirapine
32. Tenofovir

MALARIA

TUBERCULOSIS

HIV

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- 33. Bayer AG
- 35. Kyorin Pharmaceutical

Company Ranking Explanation

Sanofi

Total Impact score of 20,180,440.57

Main Drugs

AS+AQ, AS+SP, Eto, R

Treats

Malaria & TB

Final Impact for Malaria

13,579,865.04

Final Impact for TB

6,600,575.53

Sanofi has a Total Impact Score of 20,180,440.57. Of that score, 67.29%, or 13,579,865.04, comes from treating malaria and 32.71%, or 6,600,575.53, comes from treating TB. Sanofi produces two widely-used first-line treatments against malaria, AS+AQ and AS+AP. Through the production of these two anti-malaria drugs, Sanofi is responsible for 50.07% of the total DALYs alleviated that would have been lost to malaria in the world in 2010. Sanofi placed first in terms of total DALYs lost to malaria alleviated by any company.

Sanofi also produces two anti-TB drugs, Eto and R. Eto is especially important in treating Multiple drug-resistant TB (MDR-TB) because it is included in all three Anti MDR-TB treatment regimens. R is also important because it is one of the standard 6-month first-line regimens against TB. For its TB drugs, Sanofi helped to alleviate 24.97% of the DALYs that would have been lost to TB in the world of 2010. Sanofi placed second in terms of total DALYs lost to TB alleviated by any company.

Although Sanofi's drugs do not top other drugs companies make in every aspect that we measured, its consistently good performance in helping to alleviate the global burden of malaria and TB put it in first place in our index.

Company Ranking Explanation

Novartis

Total Impact score of 13,555,410.12

Main Drugs

AL, ATV/r (half)

Treats

Malaria & HIV

Final Impact for Malaria

13,534,956.85

Final Impact for HIV

20,453.27

Novartis has a total impact score of 13,555,410.12. Of that score, 99.85%, or 13,534,956.85, comes from treating malaria and 0.15%, or 20,453.27, comes from treating HIV/AIDS.

Novartis's malaria drug, AL, performs the second best in almost every aspect among all anti-malaria drugs. It alleviated the second most—49.90% of the total DALYs that would have been lost to malaria in the world of 2010. It is also the most used anti-malarial drug among countries. Out of 104 countries that specify a first line treatment for *p. falciparum* malaria, 53 used AL as the only, or a primary part of, their first-line drug treatments. Moreover, AL ranks as the second most effective anti-malaria drug, with an average efficacy of 98.10%.

Novartis also shares credit for an HIV drug, ATV/r, which accounts for the alleviation of 0.17% of the total avoided DALYs lost to HIV/AIDS. It is included in 2 out of 8 treatments in low-and-middle-income countries in Latin America.

Due to the impressive performance of AL, Novartis ranks second in our index.

Company Ranking Explanation

Pfizer Inc

Total Impact score of 13,209,904.58

Main Drugs

Cs, E, Z, PAS

Treats

TB

Final Impact for TB

13,209,904.58

Pfizer Inc has a total impact score of 13,209,904.58. All of its score comes from treating TB. Pfizer's four anti-TB drugs helped to alleviate more of the DALYs lost to TB than any other company in the world in 2010, which accounts for 49.97% of the total TB DALYs averted in 2010.

Pfizer's E and Z are two of the four standard 6-month first-line regimens against TB. Its Cs and PAS are essential regimens in treatments of multiple drug-resistant TB (MDR-TB). All three MDR-TB treatment regimens include Cs and PAS.

Although Pfizer's four anti-TB drugs perform the best among all other anti-TB drugs, the total DALYs averted is not as high as the two companies above, and it thus ranks third in our index.

Company Ranking Explanation

Shire Pharmaceuticals

Total Impact score of 7,431,422.84

Main Drugs

3TC

Treats

HIV

Final Impact for HIV

7,431,422.84

Shire Pharmaceuticals has a total impact score of 7,431,422.84. All of its score comes from treating HIV/AIDS. Shire's 3TC is the most-used first-line anti-HIV regimen. 3TC is included in 87.5% of first-line treatments against HIV of adults and 85.7% first-line treatments against HIV in children. 3TC is especially essential in treating children in Group A countries as part of a first-line regimen. 8 out of 9 treatments for children in these countries include 3TC, which accounts for 98.5% of the treatment coverage. In 2010, 3TC helped to alleviate the most DALYs lost to HIV, 31.19% of all the DALYs alleviated in the world in 2010.

Although Shire Pharmaceuticals manufactures only 3TC, its total impact score puts Shire Pharmaceuticals in fourth place in our index.

Company Ranking Explanation

Hoffman-LaRoche

Total Impact score of 6,587,721.05

Main Drugs

H

Treats

TB

Final Impact for TB

6,587,721.05

Hoffman-LaRoche has a total impact score of 6,587,721.05. All of its score comes from treating TB. Hoffman-LaRoche's sole anti-TB drug, H, served as one out of four standard 6-month first-line regimens. H performs the third best in alleviating DALYs lost to TB among all anti-TB drugs. It alone alleviated 6,587,721.05 DALYs in 2010 — 24.92% of the total DALYs alleviated that would have been lost to TB in the world of 2010. Hoffman-LaRoche is ranked fifth in our index.

Company Ranking Explanation

Boehringer Ingelheim Pharmaceuticals

Total Impact score of 4,459,685.33

Main Drugs

NVP

Treats

HIV

Final Impact for HIV

4,459,685.33

Boehringer Ingelheim Pharmaceuticals has a total impact score of 4,459,685.33. All of its score comes from treating HIV. Boehringer Ingelheim's NVP is used in many first-line regimens treating HIV. Most of NVP's score came from treating adults in Group A countries. Combined with other drugs, NVP accounts for 59.7% of adult first line treatment in Group A countries.

In 2010, NVP helped to alleviate 4,459,685.33 DALYs lost to HIV in the world, which accounts for 18.72% of the total alleviated DALYs lost to HIV. In terms of total alleviated DALYs, NVP ranks second among all other anti-HIV drugs. Overall, Boehringer Ingelheim Pharmaceuticals ranks the sixth in our index.

Company Ranking Explanation

Bristol-Myers Squibb

Total Impact score of 3,268,276.09

Main Drugs

Amk, ddl, d4T, Km

Treats

Malaria & TB

Final Impact for HIV

3,254,227.49

Final Impact for TB

14,048.60

Bristol-Myers Squibb has a total impact score of 3,268,276.09. Of its score, 99.57%, or 3,254,227.49, came from treating HIV and 0.43%, or 14,048.60, comes from treating TB.

Bristol-Myers Squibb produces two anti-HIV drugs, ddl and d4T. Ddl, as a first-line treatment, is used only for children in Group B countries while, as a second-line treatment, ddl is used by adults in Group A countries and by children in both group A and B countries. Most of ddl's score came from its treatment for children in Group A countries (as a second-line treatment). When combined with other drugs, ddl is included in 39.60% of second-line treatment regimens for children in Group A countries. Most of the score of d4T came from its use in first-line treatment for children in Group A countries. In combinations with other drugs, d4T is part of 56.4% of first-line treatment regimens for children in Group A countries.

Bristol-Myers Squibb also produces two anti-TB drugs, Amk and Km. Km is used to treat both multiple drug-resistant TB (MDR-TB) and extensively drug-resistant TB (XDR-TB) while Amk is used only to treat XDR-TB. Most of Km's score came from its use in a treatment against MDR-TB. The treatment regimen Km + Lfx + Eto + Cs + PAS receives credit for 74% of the total impact of MDR-TB treatment; Km receives 1/5 of the impact of this treatment regimen.

Bristol-Myers Squibb's HIV drugs helped to alleviate 13.66% of the total global burden of HIV alleviated in the world in 2010, while its TB drugs helped to alleviate 0.05% of the total TB DALYs alleviated. With its TB and HIV scores combined, Bristol-Myers Squibb ranks seventh in our index.



Company Ranking Explanation

Viiv Healthcare

Total Impact score of 3,227,206.05

Main Drugs

ABC, AZT, NFV

Treats

HIV

Final Impact for HIV

3,227,206.05

Viiv Healthcare has a total impact score of 3,227,206.05. It focuses only on treating HIV. Viiv Healthcare produces three drugs for HIV: ABC, AZT and NFV. Most of ABC's score came from treating children in Group A countries as a second-line treatment. ABC is included in 42.6% of second-line treatment regimens for children in Group A countries. AZT is an important regimen for first-line treatment of children in Group B countries. All six first-line treatments in these countries include AZT. In addition, AZT is especially effective when combined with 3TC and EFV to treat HIV in adults in Group B countries. Their combined effectiveness achieved 82.00%, which tops all other first-line regimens for Adults in Group B countries. Lastly, NFV is used as a regimen in both first-line and second line treatments of children in Group B countries. All of NFV's score came from the treatments for children in these countries.

Combining the impact scores of its three drugs, Viiv Healthcare helped to alleviate 3,227,206.05 DALYs lost to HIV, 13.54% of the total HIV DALYs alleviated in the world in 2010. Viiv Healthcare ranks eighth in our index.

Company Ranking Explanation

Merck

Total Impact score of 3,113,020.28

Main Drugs

EFV, S

Treats

TB & HIV

Final Impact for HIV

3,110,048.90

Final Impact for TB

2,971.38

Merck has a total impact score of 3,113,020.28. Of its score, 99.90%, or 3,110,048.90, comes from treating HIV and 0.10%, or 2,971.38, came from treating TB. Merck's sole anti-HIV drug, EFV, accounts for most of its score. EFV serves as a regimen in both first-line and second-line treatments for HIV. EFV receives most of its score from its inclusion in first-line treatment regimens for adults in Group B countries. EFV is included in 53.1% first-line treatment regimens for adults in Group B countries. EFV is especially effective when combined with AZT and 3TC.

Merck's anti-TB drug, S, is used as a regimen to treat multiple drug-resistant TB (MDR-TB). S is included in two out of three treatments against MDR-TB.

With the two drugs, Merck helped to avert 13.05% of total DALYs alleviated by any company for HIV and 0.011% of total for TB. Combining the total impact of both drugs, we rank Merck ninth in our index.

Company Ranking Explanation

Gilead Science

Total Impact score of 1,989,941.39

Main Drugs

FTC, TDF

Treats

HIV

Final Impact for HIV

1,989,941.39

Gilead Science has a total impact score of 1,989,941.39. All of its score comes from treating HIV/AIDS. Gilead Science produces two drugs for treating HIV/AIDS: FTC and TDF. FTC serves as a regimen in treating adults in both Group A and B countries. Most of FTC's score came from its inclusion in second-line treatment regimens for adults in Group A countries. FTC is included in 10.70% of second-line treatment regimens for adults in group A countries.

Gilead Science's second drug treating HIV/AIDS is TDF, which is included in regimens for adults in both Group A and Group B countries. TDF is also part of a second-line regimen to treat children in Group A countries, though this treatment regimen only accounts for 2% of second-line treatments for children in group A countries. Most of TDF's score came from treating adults in Group B countries as a second-line regimen. TDF is included in 6 out of 10 second-line treatments against HIV for adults in Group B countries. Combined with other regimens, TDF is part of 54.2% of second-line treatment regimens for adults in Group B countries.

Combining the impact of its two drugs, Gilead Science accounts for 8.35% of the total DALYs alleviated that would have been lost to HIV in the world of 2010. Its total impact score puts Gilead Science in tenth place in our index.

Company Ranking Explanation

Abbot Laboratories

Total Impact score of 335,233.33

Main Drugs

LPV/r, ATV/r (half)

Treats

HIV

Final Impact for HIV

335,233.33

Abbot Laboratories has a total impact score of 335,233.33. Its entire score comes from treating HIV/AIDS. Abbot Laboratories receives credit for two anti-HIV drugs: LPV/r and half of the credit for ATV/r. LPV/r is included in regimens for treating adults and children in both Group A and Group B countries. Most of LPV/r's score came from its inclusion in second-line treatment for adults in Group A countries. All second-line treatments of adults in Group A countries include LPV/r. LPV/r is most effective when combined with TDF and 3TC.

ATV/r, the second of Abbot Laboratories' treatments against HIV, is used only to treat adults in Group B countries. Most of ATV/r's score came from treating these adults as a second-line regimen. ATV/r is included in 14.80% of second-line treatments for adults in Group B countries.

Combining the impact of its two drugs, Abbot Laboratories accounted for 1.41% of total DALYs alleviated that would have been lost to HIV in the world of 2010. The total impact score of Abbot Laboratories ranks eleventh in our index.

Company Ranking Explanation

Daichii Sankyo

Total Impact score of 15,978.61

Main Drugs

Lfx, Ofx

Treats

TB

Final Impact for TB

15,978.61

Daichii Sankyo has a total impact score of 115,978.61. Its entire score comes from treating TB. Daichii Sankyo produces two anti-TB treatments: Lfx and Ofx. Lfx is an essential drug for treating multiple drug-resistant TB (MDR-TB). All three regimens for MDR-TB include Lfx. On the other hand, Ofx is included in the treatment regimen for extensively drug resistant TB (XDR-TB).

Combining the impact of its two drugs, Daichii Sankyo accounts for 0.06% of total DALYs alleviated by any company lost to TB in the world of 2010. Its total impact score ranks Daichii Sankyo at the twelfth place in our index.

Company Ranking Explanation

Chongqing Tonghe Pharmaceutical Co. Ltd.

Total Impact score of 6,730.11

Main Drugs

DHA-PPQ

Treats

Malaria

Final Impact for Malaria

6,730.11

Chongqing Tonghe Pharmaceutical Co. Ltd. has a total impact score of 6,730.11. Its entire score comes from treating malaria. Chongqing Tonghe produces DHA-PPQ, which serves as a first-line treatment against malaria. Most of DHA-PPQ's score came from its average treatment efficacy, which ranks second (97.50%) in all malaria drugs. Additionally, DHA-PPQ is only used as a first-line drug for malaria in five countries. In 2010, Chongqing Tonghe's DHA-PPQ helped to alleviate 0.02% of the total DALYs that would have been lost to malaria. Its total impact score ranks Chongqing Tonghe Pharmaceutical Co. Ltd. thirteenth in our index.

Company Ranking Explanation

Eli Lilly

Total Impact score of 2,082.75

Main Drugs

Cm

Treats

TB

Final Impact for TB

2,082.75

Eli Lilly has a total impact score of 2,082.75. Its entire score comes from treating TB. Eli Lilly's anti-TB drug, Cm, serves to treat extensively drug-resistant TB (XDR-TB). It helps to alleviate 0.008% of the total DALYs that would have been lost to TB in the world of 2010. Eli Lilly is ranked fourteenth in our index.

Company Ranking Explanation

Bayer Healthcare

Total Impact score of 1,562.06

Main Drugs

Mfx

Treats

TB

Final Impact for TB

1,562.06

Bayer Healthcare has a total impact score of 1,562.06. Its entire score comes from treating TB. Bayer Healthcare's anti-TB drug, Mfx, is part of the treatment regimen for extensively-drug resistant TB (XDR-TB). In 2010, Mfx helped to alleviate 0.006% of the total DALYs that would have been lost to TB in the world. Its total impact score ranks Bayer Healthcare at the fifteenth place in our index.

Company Ranking Explanation

Kyorin Pharmaceutical Co., Ltd.

Total Impact score of 1,562.06

Main Drugs

Gfx

Treats

TB

Final Impact for TB

1,562.06

Kyorin Pharmaceutical Co., Ltd has a total impact score of 1,562.06. Its entire score comes from treating TB. Kyorin's anti-TB drug, Gfx is part of the treatment regimen for extensively drug-resistant TB (XDR-TB). In 2010, Gfx helped to alleviate 0.006% of the total DALYs that would have been lost to TB in the world. Its total impact score ranks Kyorin Pharmaceutical Co., Ltd. sixteenth in our index.