Resistance to insecticides poses a major challenge to existing methods of vector control, as reliance on pyrethroids increases globally. Pyrethroids, a single class of insecticides, are highly effective and the least expensive of the four classes of insecticides currently available for public health vector control.

In some areas, WHO has noted resistance to all four classes of public health insecticides. Hence, urgent action is needed for effective management of insecticide resistance.

Other measures requiring immediate attention include:
- Addressing the critical shortage of entomologists and developing an infrastructure to support their work;
- Strengthening surveillance of vectors and integrating surveillance into national health information systems to measure the effectiveness of interventions;
- Improving sanitation and access to safe drinking water;
- Ensuring judicious use of pesticides;
- Undertaking more research and monitoring the impact of environmental change and its effect on vector behaviour in various settings.
THESE DISEASES ARE RESPONSIBLE FOR THE DEATHS OF MORE THAN A MILLION PEOPLE EACH YEAR, AND ONE-SIXTH OF THE WORLD’S ILLNESS AND DISABILITY IS ATTRIBUTED TO THESE DISEASES.

More than half the world’s population is estimated to be at risk of vector-borne diseases. Malaria, dengue, schistosomiasis, leishmaniasis, Chagas disease, lymphatic filariasis and onchocerciasis are some conditions that blight the lives of millions and leave many more living with chronic illness and disability.

VECTORS

Vectors are living organisms that transmit diseases between humans or from animals to humans. Mosquitoes are perhaps the best known vectors. But there are many others that carry diseases such as ticks, sandflies, lice, bugs and freshwater snails.

INCREASING RISKS

Vector-borne diseases affect the poorest populations in many countries worldwide. Illness and disability prevent people from working and supporting themselves and their family, causing further hardship and impairing economic development.

Traditionally regarded as a problem in tropical countries, vector-borne diseases now pose a far wider threat. Their potential to spread globally, due to changes in climate, ecology, land-use patterns, and the rapid and increased movement of people and goods, are all increasing the number of people at risk.

It is therefore time to reassess and revive vector control as an important element of wider efforts to protect populations and adapt to the changing environment. Vector control can be particularly effective when used in combination with quality-assured treatment and other disease control interventions.

PROTECT YOURSELF

By taking these simple measures at your level, you can greatly contribute to preventing the spread of vectors:

- inform yourself about vectors that carry diseases in your local setting (or when you are travelling);
- use appropriate products at home – such as insecticide-treated bed nets or suitable repellents – to protect yourself against mosquito bites;
- cooperate with your local health authorities in carrying out indoor residual spraying programmes;
- participate in campaigns to better manage your environment – for example, eliminating all standing water that can provide a breeding environment for mosquitoes around your home.

At community level, you can engage in collective awareness activities; attend to practical short courses on vector control methods; organize and participate in the clearing of wastes that accumulate water and call for improved sanitation and protection of water sources.

CONCLUSION

Vector-borne diseases are one of the greatest contributors to human suffering and death. They have continued to increase, with some spreading at an alarming pace.

The silent expansion of mosquito vectors and their ability to develop resistance to insecticides threatens the gains made through vector control. Environmental changes have also facilitated the spread of some diseases in rural areas.

It is therefore time to reassess and revive vector control as an important element of wider efforts to protect populations and adapt to the changing environment. Vector control can be particularly effective when used in combination with quality-assured treatment and other disease control interventions.

SOME COMMON WIDESPREAD DISEASES

- Dengue: Mosquito-borne viral infection that may cause lethal complications
- Chagas disease: Life-threatening condition transmitted through infected bugs, contaminated food, infected blood transfusion
- Lymphatic filariasis: Infection occurs when filarial parasites are transmitted to humans through mosquitoes
- Yellow fever: Viral disease transmitted via Aedes mosquitoes

For more information, contact your health worker.