

# HOW DO CTC AND ECTC RELATE TO EACH OTHER?

8°C and higher →

2°C  
to  
8°C

Traditional Cold Chain



## ECTC

EXTENDED CONTROLLED  
TEMPERATURE CONDITIONS

*Regulatory requirements for licensure*

- Apply to thermostable vaccines that are able to tolerate **a specified temperature above 8°C for a specified number of days**
- **Independent** of specific programmatic requirements

For more information on ECTC:  
[www.who.int/biologicals/areas/vaccines/ectc](http://www.who.int/biologicals/areas/vaccines/ectc)



## CTC

CONTROLLED  
TEMPERATURE CHAIN  
*Programmatic requirements  
for field implementation*

40°C and higher →

- Applies to thermostable vaccines that are able to tolerate temperatures of **at least 40°C for a minimum of three days**
- WHO provides support through **guidance, training, and supervision**

For more information on CTC:  
[www.who.int/immunization/programmes\\_systems/supply\\_chain/ctc](http://www.who.int/immunization/programmes_systems/supply_chain/ctc)