## Disease control

To control Ebola disease outbreaks, it is essential to stop transmission and interrupt spread of disease in the most affected populations. To date, this control has been achieved through a multidisciplinary, holistic approach including early case identification, rapid isolation, and clinical management of patients with Ebola virus disease; safe and dignified burial practices; health promotion and community engagement; support to health structures; and transversal coordination.

Early case identification is important to prevent outbreaks spreading, which would require reinforcement of surveillance systems for early identification of suspect cases in at-risk areas. These surveillance systems should be complemented with the establishment of national laboratory capacity able to rapidly and reliably detect ebolaviruses and other haemorrhagic fever viruses using state-of-the-art technologies. The usefulness of such approach is exemplified by the positive effect of Uganda's viral haemorrhagic fever surveillance system on morbidity and mortality in this country (ie, resulted in earlier identification of cases and lower numbers of total cases per outbreak).

Rapid isolation of Ebola disease cases is crucial in order to achieve outbreak control. One of the most effective ways to achieve rapid isolation of the disease is through provision of care in appropriate settings, such as Ebola Treatment Centres (ETCs, [appendix](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)33132-5/fulltext#sec1)). Isolation and high quality care need to be provided with dignity, respect, and compassion to be accepted by affected communities. As long as their safety is guaranteed, affected families should be informed about and, as much as possible, involved in the care of their close ones, and visits by family members should be encouraged. ETCs should be close to the affected communities and operate with a transparent polic (including open communication with the affected communities about medical activities that occur in the ETC and possibility for families to visit their affected family members in the ETC; [appendix](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)33132-5/fulltext#sec1)).

Survivors can be crucial witnesses to increase community acceptability, eg, by testifying about the care given in ETCs. Since high case fatality has discouraged people from seeking care, the availability of dedicated ETCs close to the affected regions might help to increase acceptance. Recently, individual treatment units (such as bio-secure emergency rooms) have been developed during the 2018 epidemics in the Democratic Republic of Congo, with the aim of ameliorating adaptability and facilitating access for medical staff and families ([appendix](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)33132-5/fulltext#sec1)).

Anecdotal evidence suggests that isolation and elementary care of Ebola disease patients within their homes or communities could be an alternative to care in ETCs, notably when isolation is not accepted by the patient or the community. The effectiveness and safety of such alternative forms of isolation and care have yet to be evaluated and will probably be dependent on the resources available.

Findings from studies suggest that contact tracing (identification, listing, and following up of contacts of patients with Ebola disease) contributes to the control of outbreaks, although people's dignity and privacy need to be respected. An audit of contact tracing in Liberia during 2014–15 showed that contact tracing was successful in 26·7% of all Ebola virus disease cases and detected 3·6% of new cases.

Prerequisites for effective contact tracing include the availability of sufficient skilled human resources and logistical support, including mobile telephones and motorbikes or cars, which might be challenging in the low-resource settings in which Ebola disease outbreaks occur.

However, effective coordination and community involvement might allow effective contact tracing even when resources are restricted.

Safe burial practices also contribute to effective control of Ebola disease outbreaks ([appendix](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)33132-5/fulltext#sec1)).

Permitting attendance and allowing time for traditional ceremonies, while taking all necessary safety precautions, can greatly increase the community's acceptance and compliance with safe burial activities.

Cultural practices and beliefs might create barriers to the perception and management of patients with symptoms of Ebola disease, resulting in delayed referral of infected individuals for care. In many places where Ebola disease occurs, the disease remains unknown and can often be seen as a consequence of witchcraft. Health promotion activities are crucial to obtain the acceptance of the different intervention control activities by the communities. These health promotion activities should preferably be done by people who had been exposed to Ebola disease

and be based on a dialogue with the community, rather than an exercise in top-down information They should aim to address the concerns and experiences of the affected communities ([appendix](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)33132-5/fulltext#sec1)).

The communities, represented by local trusted leaders should be encouraged to get involved in the different outbreak control interventions (eg, through participation in outbreak intervention teams, such as local religious leaders being part of burial teams).

Traditional healers and religious leaders should have a central role in vaccination programmes, not just for their own safety, but also to set an example within their communities, and should receive health education to enhance their potential to recognise cases of Ebola disease and react appropriately.

A high level of coordination is required, since many resources need to be mobilised and multiple people will potentially have to cooperate.