



## **Research partnerships and collaborations helping to address the sustainable development goals**

Below is an example demonstrating our response to Target 1.4:

*By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.*

Collaborative research at Exeter is helping to expand healthcare provision to Amish and Menonite communities are living below the poverty threshold in the USA. Working with charities and health care providers in Ohio and Wisconsin, the Exeter research team characterised seven novel disorders and identified over 150 conditions previously unrecognised in the community.

The team then designed and developed new genetic testing approaches, which have been integrated into diagnostic laboratories serving Amish communities and internationally. Educational programmes for the Amish and healthcare service professionals have been developed by the research team, accompanied by online educational resources and printed disease specific brochures to share research findings.

Together, this work has increased diagnostic rates for genetic disease from less than 15% (2013) to more than 70% by 2020, reduced hospitalisations, prevented major neurological and physical impairments, and enabled estimated savings of over \$100 million in community healthcare costs. As a consequence of Exeter-led research, local clinicians are now able to recognise a patient's disorder and order a cost-effective (~\$50) genetic test, enabling diagnoses for around 50% of families. Exeter researchers, Dr Baple and Professor Crosby, also support regular clinics for patients translating research discoveries directly into clinical care.

