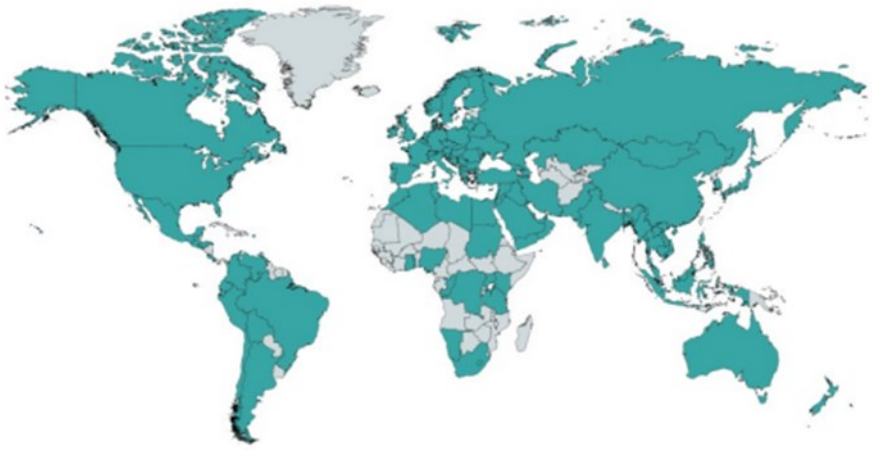
Research partnerships and collaborations helping to address the sustainable development goals

Below are examples demonstrating our response to Target 3.2:

By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

Countries where patients have received neonatal diabetes genetic testing for the genes discovered in the Exeter laboratory (shaded dark green)



The discoveries of the Exeter Diabetes Genetics group have revolutionised the way neonatal diabetes is diagnosed and treated worldwide. They have discovered 18 of the 28 known genes which cause diabetes diagnosed in the neonatal period and optimised the clinical management of the commonest subtypes. The genes they discovered are now included in a comprehensive diagnostic test provided by the NHS and international laboratories in over 30 countries.

This molecular genetic test has been adopted and used to test children from 106 countries in 5 continents providing a diagnosis in over 85% of patients. The 2018 International Society for Pediatric and Adolescent Diabetes guidelines and the 2020 NHS testing criteria for rare and inherited disease, recommend genetic testing should be performed whenever diabetes is diagnosed in the first 6 months of life and use treatment guidelines based on the Exeter group's work. In ~40% of cases there is a mutation in the potassium channel genes and the Exeter group has shown that these patients get long-lasting, outstanding glucose control by replacing insulin injections with sulphonylurea tablets. This optimised care has improved patients' quality of life and reduced costs to healthcare providers through optimisation of testing, treatment changes and reduced incidence of severe long-term complications.

To find out more about Exeter's contributions to Diabetes research:Diabetes | Diabetes research | University of Exeter