

Leach et al (2023). Improvement of mammary gland health of dairy cows in eighty-one “sentinel herds” in England and Scotland between 2012 and 2021 – a cohort study. *VET REC.* 2023; E3605. DOI: 10.1002/VETR.3605

## **ABSTRACT**

**BACKGROUND** Achieving a reduction in mastitis in dairy cows is a common industry goal but there is no recent peer reviewed record of progress in the UK.

**METHODS** A convenience sample of 125 herds in England and Scotland was recruited based on quality of records in 2016, willingness to participate, and representative geographical distribution. Individual cow somatic cell counts and clinical mastitis data from 2012 to 2021 were summarised annually and temporal changes analysed. Eighty-one herds had sufficient data for comparison between 2012 and 2021, for one or more parameters.

**RESULTS** Over this period, median incidence rate of clinical mastitis reduced from 40.0 to 21.0 cases per hundred cows per year ( $P<0.001$ ), with improvement in both lactation and dry period indicators. Lactation new infection rate calculated from individual cow somatic cell counts fell from 8.75% to 5.95% ( $P<0.001$ ), dry period new infection rate from 16.8% to 14.1% ( $P<0.05$ ) and proportion of cows over 200,000 cells/ml from 20.0% to 14.3% ( $P<0.001$ ).

**LIMITATIONS** Data were necessarily from herds with good records and do not provide absolute values for the industry.

**CONCLUSION** The findings reflect good progress over a ten-year period in a cohort of well-recorded herds and align with other national datasets.