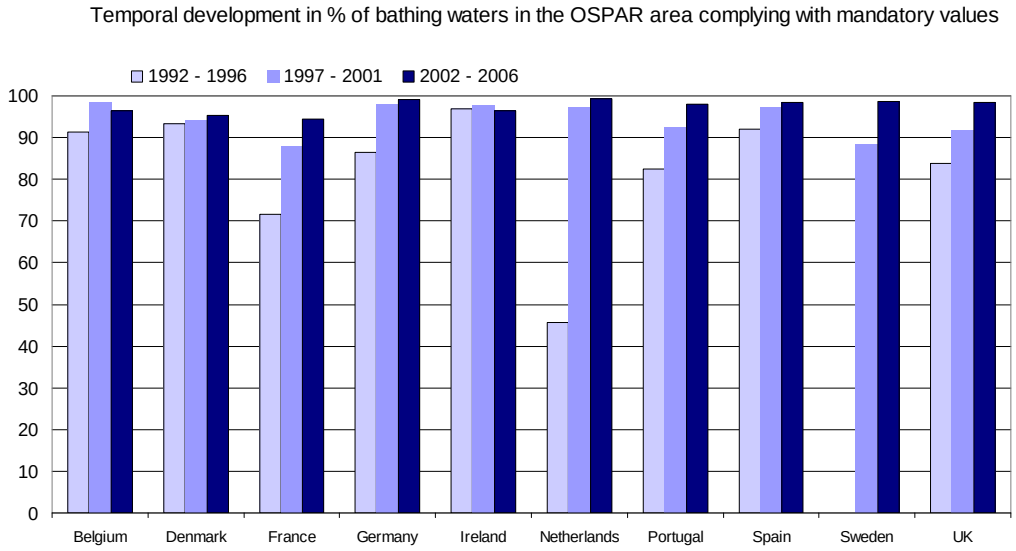
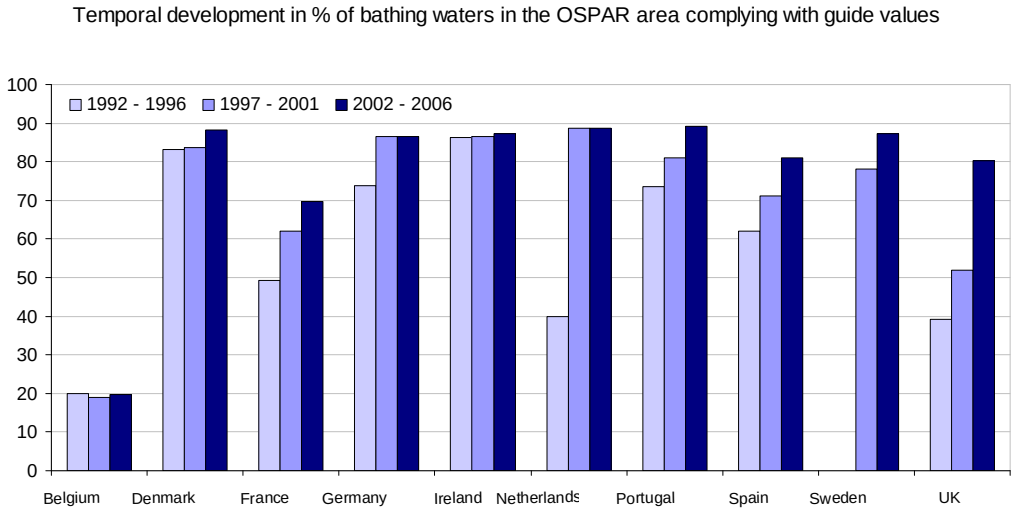
Trends in the bathing water quality in OSPAR coastal waters

The quality of EU bathing waters has improved in 1997 – 2006 in terms of compliance with the mandatory standards laid down in the Bathing Water Directive (2006/7/EC). However, improvement was slower than initially envisaged. The original target of the preceding 1976 Bathing Water Directive was for Member States to comply with the standards by the end of 1985. This was not achieved, and even by 2006 around 5% of bathing waters still do not comply with the mandatory quality standards. Nevertheless the improvement in OSPAR countries has been significant in the last 15 years (Figure 4.1A).

Yet, the rate of achieving the (non-mandatory) quality guide values has been much lower in OSPAR countries than that for the mandatory standards (Figure 4.1B). This is probably because countries would need to invest considerably more for sewage treatment works and the control of diffuse pollution sources to achieve the guide values.



A



B

Figure 4.1*: Development of percentage compliance of bathing waters of OSPAR countries with mandatory (A) and guide (B) quality values of the Bathing Water Directive in 1992 – 2006. Data source: European Commission; annual compliance reporting of EU Member States; http://www.eea.europa.eu/*

Member States have invested significant amounts of money to move towards the prescribed standards. The implementation of the Urban Waste Water Treatment Directive (91/271/EC) has also contributed significantly to the general improvement of surface water quality including bathing waters. However, in some cases the installation of sewage treatment works did not result in 100% compliance with bathing water quality standards because of diffuse pollution which still remains a source of microbiological and other contamination.

In addition, for some of the parameters listed in the directive a robust, analytical methodology has not been yet developed. Therefore compliance with the mandatory standards which focus on faecal coliforms as indicators for microbiological contamination does not necessarily mean that there is no risk to human health. In fact, a number of studies have shown that the concentration of faecal streptococci in bathing water is a more useful indication of the likelihood of illness than faecal coliforms (*e.g.,* Cabelli, 1983 and Kay *et al.*, 1994). There is a guide value in the directive for faecal streptococci (100 per 100ml) but recent scientific studies found there was a significantly increased risk of gastroenteritis when enterocci (previously named faecal streptococci) count was greater than 40 per 100ml. That means that reaching the guide value does not necessarily protect totally human health. The proposed revised Bathing Water Directive (COM (2002) 581) has introduce a higher health standard than the old directive thereby reducing likelihood of illness.

➥*Go to full QSR assessment report on the impacts of microbiological contamination on the marine environment of the North-East Atlantic (publication number 466/2009)*