The productivity of the health system should capture the valuable things that the health system produces. This is not straightforward because of difficulties in defining health care outputs and of attaching values to the outputs. We propose two new methods for measuring output growth. An “ideal” value weighted output index has two fundamental features. First, the value attached to each output reflects its relative contribution to health outcomes and, second, the value of other important characteristics of health care, such as the process of care delivery, can be readily incorporated. Comprehensive calculation of this index is currently unfeasible because of a lack of health outcome data. In the meantime an “interim” cost weighted output index is proposed, which incorporates quality adjustments. We calculate the “ideal” index for a limited set of “specimen” activities, for which data on health outcomes are available, and the “interim” index for UK NHS hospital Trusts from 1999/99 to 2003/04. This interim index is combined with a measure of input growth to assess both labour productivity and total factor productivity growth over the period.