ABSTRACT
A UK Quality Assurance Project Group has been developing a QA programme both for all aspects of the British National Child Health System, and for all aspects of the community-based immunisation, screening and surveillance child health services which are administered via the computer system [1]. This paper describes the Project Group's initial theoretical work and focuses on the application of this theory to pre-school screening and surveillance programmes.

1. BACKGROUND
The National Child Health System is a National Health Service (NHS) computer system which provides most of the Health Authorities and Boards in England, Wales and Northern Ireland with a powerful and flexible tool for the management and administration of community-based child health services. The foundation of the System is the Child Register, with three service-delivery Modules - Immunisation, Pre-School Health and School Health - and statistics and information derived directly from the service data [2]. In the new NHS arrangements, child health services are the joint responsibility of District Health Authorities or Boards, family doctors, and the Family Health Services Authorities. The QA Project aims to help all these System users assure the quality of their child health services, and to ensure that we comply with WHO European Regional Target 31, 'all Member States should have built effective mechanisms for ensuring quality of patient care within their health care systems' [3].

2. THE QA PROJECT METHODOLOGY
The QA programme has been about formulating QA principles and devising QA measures - measures of what is best and what is right - and the work has been a series of steps:-
- dividing the whole subject matter into manageable areas or topics; the topics are quality assurance per se; the computer system; confidentiality, security and data protection; performance indicators; services management, planning and epidemiology; running the System; client facets; immunisation; screening & surveillance programmes; vision & hearing testing; height & weight, growth measurement; and the child register:
- agreeing an approach for the programme; the agreed approach is based on the four groups of people involved - the clients, the health professionals, the managers, and the computer staff:
- considering each topic in relation to the four groups of people:
- establishing principles for any QA measures; these principles are - accuracy and completeness, timeliness, effectiveness, efficiency and economy, acceptability and value:
- devising a suitable QA model, a model which is relevant and practical:
- devising measures and means of applying the model to each topic:
- and testing the proposed solutions in a number of differing pilot sites.

Most of these steps have been completed during the work of the last couple of years. The Project Group includes all professions, mostly System users, so individual members with relevant experience were selected as topic leaders; Dr. Lambert leads on screening and surveillance programmes, and Mrs. Osborne on confidentiality, security and data protection.

3. THE QA MODEL

The Project Group sees the QA process as continuous and evolutionary, so there is obvious relevance in the circular conceptual QA model proposed by Dr. Norma Lang, adapted by the American Nurses’ Association, and widely used in nursing QA [4]. Our QA model (in the Figure below) must be flexible and adaptable to the needs of a variety of users; based on a computer system, it has the System data as its hub, surrounded by a number of steps to be carried out within an agreed limited time-scale, after which the process recommences. The model accords with Dr. Lang’s definition of values as ‘the level of quality health care we are willing to support in terms of personal behaviour, professional behaviour, and public policy’.

4. PRE-SCHOOL SCREENING AND SURVEILLANCE PROGRAMMES

4.1. Background. The agreed QA methodology was applied to each topic, using the Model to define values, standards and criteria, and to devise practicable QA measures. While matters such as health policy, clinical activities, administrative procedures and inter-professional communication are outwith the actual computer System, their importance is noted and