SESSION: "HEMOPHILIA THERAPY: A CHALLENGE TO THE WORLD BLOOD RESOURCES". TOPIC: "HOW CAN THE PROBLEM BE SOLVED? IS BLOOD A WORLD RESOURCE?". E. Bidwell, Combe, Oxford, England.

The production of factor VIII is only one of many interdependent commitments of the Blood Transfusion Service, and is unlikely to be the final determining factor in limiting the total commitment. The real challenge of Haemophilia Therapy cannot be met by any amount of effort of the volunteer donor, and of the ordinary citizen who directly or indirectly supports the haemophiliac by his contribution to national wealth. There must be a comprehensive programme to utilise human blood and blood products in which haemophilia therapy is only a part. I do not think this challenge can be met by regarding blood as a World Resource. It is a Community or National resource. The practice of moving surplus blood or blood products from one affluent country to another is of doubtful wisdom, in the long term, for either participant.

FACTOR VIII CONCENTRATES - FORCES OF SUPPLY AND DEMAND. Anthony F. H. Britten. Northeastern New York Red Cross Blood Center, Albany, New York, USA.

Some surprisingly simple artificial factors influence the availability of factor VIII for hemophilia treatment. Demand is affected by choice of product, and choice of treatment style (episodic vs. prophylactic), and also by availability funds.

Autobiographic data suggest the feasibility of long-term low dosage prophylaxis (6u/Kg/48 hrs.). This tentative conclusion is based on 2½ yrs. of unprecedented near-total freedom from hemorrhage. The significance is the potential saving of 60% of factor VIII concentrate, compared with the more orthodox dose (15u/Kg/48 hrs.) which has been shown to increase factor VIII usage by 2.5-3 times compared with episodic therapy.

The American Red Cross produced 293,332 units of cryoprecipitate from 4,690,217 whole blood donations in 1975-6 (6.25% of blood collected). Production could readily be increased if the demand existed. The following artificial factors have an influence on cryoprecipitate production: health insurance policies; price structure; the international market for factor VIII.

It is concluded that there is no shortage of available factor VIII, that more could readily be made available, that prophylaxis may be possible without increasing demand for factor VIII, that financial considerations are seriously distorting hemophilia treatment, that hemophilia treatment in the United States is being subsidised by other countries, and that understanding of these factors can help to overcome them.

PLASMA CONCENTRATE CONSUMPTION - A FIVE YEAR STUDY. D.C. Boone, S.L. Dietrich, C.K. Kasper, Orthopaedic Hospital, Los Angeles, California, U.S.A.

Outpatient consumption of plasma concentrates by 225 hemophilic patients of Orthopaedic Hospital was reviewed for the five year period, 1969-1973. Patient data were grouped by age, by hemophilia type and deficiency level. Further subdivisions were made based upon the locality of transfusion; only at home, only in the outpatient facility of Orthopaedic Hospital, or a combination of both. The subdivided data were compared for 1969 and 1973 for transfusions/patient, factor units/transfusion, units/patient, and percentage of joint, nonjoint and prophylactic transfusions. Significant differences in consumption were found between the defined age, hemophilia type and deficiency groupings. An important finding was the variation in numbers of transfusions between patients with the same hemophilia type/deficiency and age. Markedly different patterns of consumption were found depending upon the locality of transfusion. Patients with severe hemophilia on home transfusion showed significant increases in transfusions/patient in 1973 contrasted with 1969. Units/transfusion remained essentially unchanged. These results have broad implications for the planning of blood resources since the more significant changes in concentrate consumption occurred among those patients on home transfusion who tend to have more frequent hemorrhages and who possess the freedom to decide to transfuse.