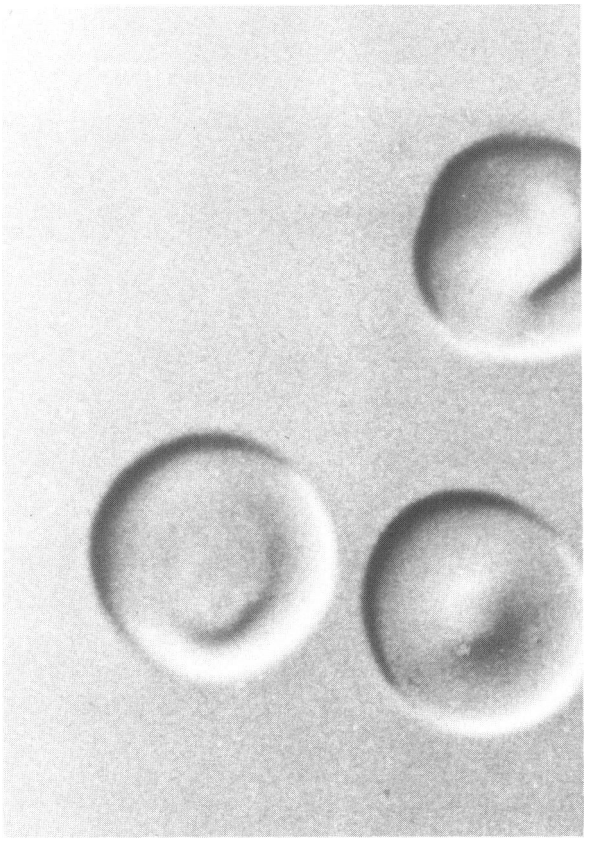
Brooklyn Screens for Sickle Cell Anemia

LENORE TROUILLOT



Microscopic view of normal blood cells. For comparison, see cover photo of untreated sickle cells. Photo courtesy of the Rockefeller University.

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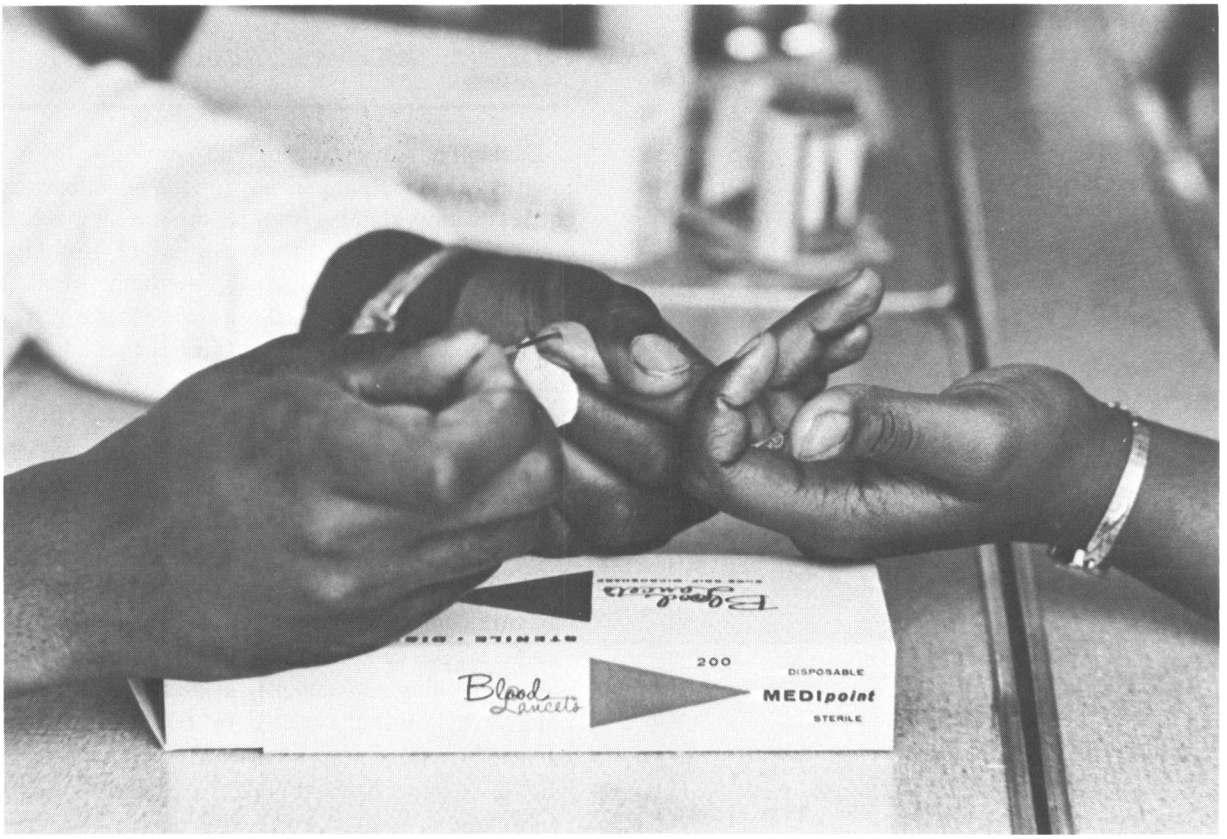
Each Thursday, during all but the winter months, a van equipped as a medical laboratory carries Cumberland Hospital laboratory technicians and other staff into the areas of Brooklyn adjacent to the Brooklyn-Cumberland Medical Center to encourage local residents to be tested for sickle cell anemia. The project is funded from the center's operating funds, and no external support has been received to date.

This screening program reaches out particularly to Fort Greene and Bedford-Stuyvesant—areas which have large populations of blacks and Puerto Ricans who are especially subject to the disease. In the winter, screening is carried out at schools, day care centers, churches, and other facilities.

The sickle cell anemia van is being used to make screening conveniently available to the community. It is usually staffed by five people—two technicians, a genetic counselor, and two clerks who also have been trained to provide genetic counseling.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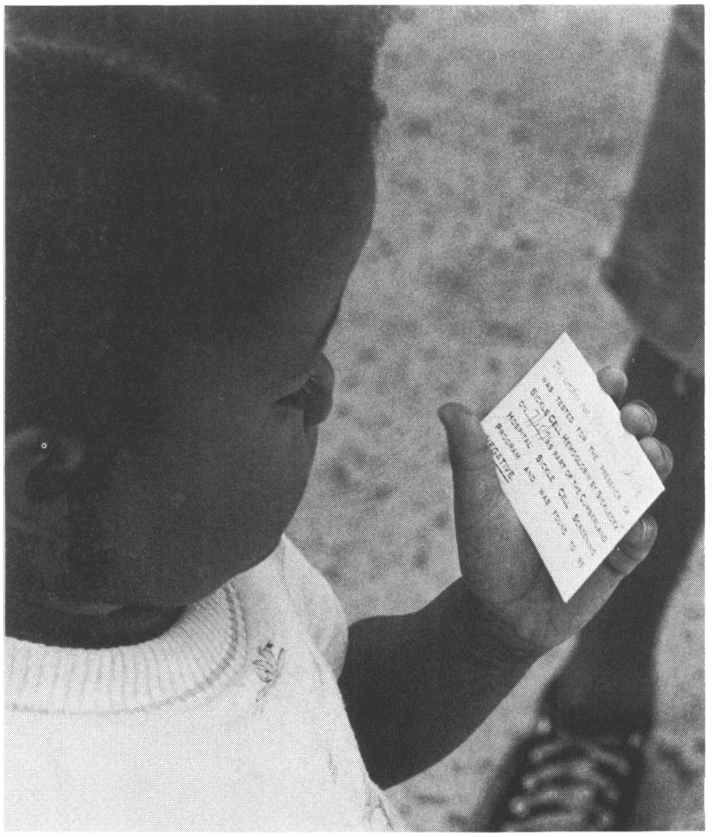

Top left: Patients wait outside the sickle cell anemia van to participate in screening program

Bottom left: Technician takes fingertip blood sample for sickle cell anemia test

Above: Child holds card certifying that she is negative for sickle cell anemia—Photographs by Armando Loney

At the van, a fingertip blood sample is tested with a reagent which provides a positive or negative result within 5 minutes. Persons with negative results receive cards stating that they do not have the disease. When a test is positive, an additional blood specimen is taken for laboratory diagnosis, and an appointment is made for the person to visit the Cumberland Hospital Sickle Cell Anemia Clinic. Additionally, a "Family Information Form" is completed for that person.

According to Dr. Stanley Grand, administrative director of the program, more than 50 percent of those with positive tests have been keeping their appointments.

At the clinic each person found to have hemoglobin S in the screening procedure is given a complete physical examination and a variety of laboratory tests. The examining physician prescribes treatment, if necessary, in accordance with recognized and accepted methods. Each patient also receives genetic and health counseling and a return appointment.

If other diseases are uncovered, the patients are referred to one of the 68 specialty outpatient clinics at the medical center. In this way the sickle cell screening program is instrumental in bringing members of the community into the center's health care system.

There are two forms of sickle cell anemia. The more serious form emerges when both the genes necessary for hemoglobin production are abnormal, thus causing its victims to suffer from a variety of aches and pains, to tire quickly, and to suffer more serious involvement with many diseases than normal people. Fortunately, when a person carries one abnormal gene and one normal gene, the disease has a milder form, known as sickle cell trait.

Persons with the sickle cell trait are not usually ill. They have normal and long lives, provided only that they avoid circumstances which cause a significant decrease of oxygen availability. They should be informed, however, that they have the trait and that it can be passed on to their children.

The Sickle Cell Anemia Clinic at Cumberland Hospital is one of about eight in the New York area, many of which have been organized recently as the disease has become recognized to have widespread consequences among the population. It is believed, however, that Cumberland's program is the most comprehensive of these and that it is the first one to use a mobile van for mass screening for sickle cell anemia.

The Brooklyn-Cumberland Medical Center is an affiliation of the Brooklyn Hospital—a 126-year old, 500-bed voluntary hospital—and the 360-bed municipal facility, Cumberland Hospital. The medical center provides health care and a wide range of community oriented programs for the surrounding Fort Greene area, downtown Brooklyn, and other sections of the borough.

As of November 1971, approximately 4,500 persons were screened in the sickle cell outreach program, and about 270 of these were found to have positive test results.