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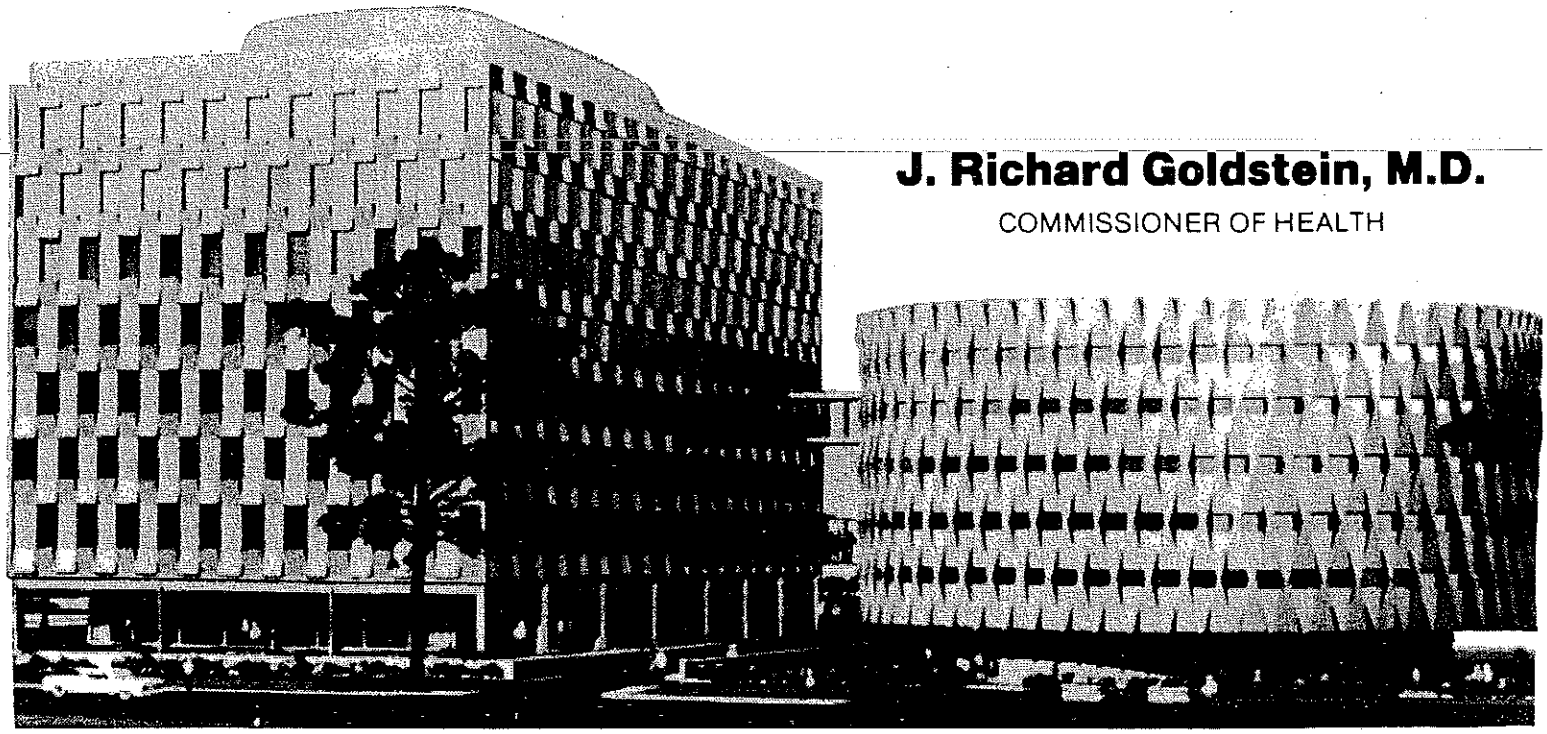
NEW JERSEY STATE DEPARTMENT OF HEALTH

MOBILE INTENSIVE CARE SERVICES UPDATE (through June 30, 1983)

A Report to the Legislature

This report is submitted pursuant to N.J.S.A. 26:2K-2

Division of Community Health Services
Office of Emergency Medical Services



J. Richard Goldstein, M.D.
COMMISSIONER OF HEALTH

NJSDH

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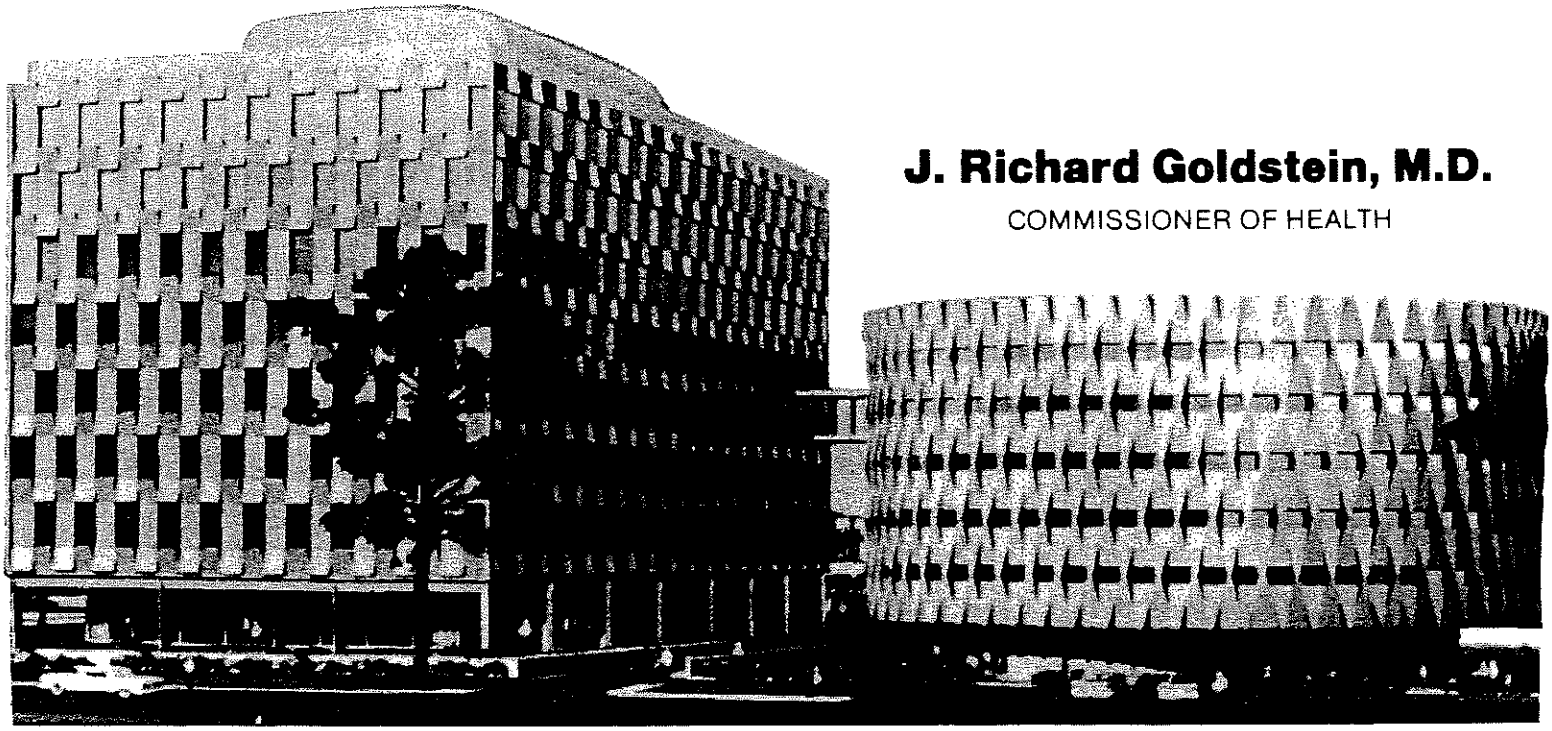

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Historical Perspective

In New Jersey, the philosophical base for mobile intensive care/advanced life support (MIC/ALS) services is that they are an extension of the hospital, bringing the capabilities of the hospital's critical care and emergency facilities to the patient in the field. In fact, the word "ambulance" comes from the French for "field hospital." Each mobile intensive care vehicle is a true "emergency room and intensive care unit on wheels." Because of this concept, New Jersey advanced life support services are referred to as mobile intensive care services (MIC services) and the vehicles are referred to as mobile intensive care units (MICUs).

Among those who can benefit from MIC services are persons suffering from heart attacks, cerebral vascular accidents, trauma, poisoning, near drowning, allergic reactions, and diabetic emergencies. In New Jersey, all MIC services must be hospital-based and physician directed, by law. The MIC vehicle, or MICU, which usually does not transport, is staffed by paramedics and/or nurses who are specially trained to deal with life threatening emergencies. (New Jersey's paramedics meet U.S. Department of Transportation criteria for full paramedic (15-module) status.) The personnel operate under direct radio and telemetry communications with, and taking orders from, a qualified physician, or an MIC nurse who is under physician direction. Standing orders are not allowed under New Jersey law.

MIC vehicles and personnel work side by side with the basic life support squads, which are about 90% volunteer. In most instances, these local volunteer services provide the actual patient transport (by prearranged agreement with the MIC program hospitals), while the MIC personnel provide advanced life support patient care. It is a team effort to provide needed health care to New Jersey's communities.

The present system actually came into being about 10 years ago. In 1973, legislation was signed which permitted the establishment of mobile intensive care pilot programs in New Jersey. These initial programs served approximately 25% of the state's residents, or about 1.8 million people. The programs provided advanced life support services to over 8,000 patients during the pilot period--saving over 200 lives, significantly benefitting over 1,400 other patients, and providing precautionary treatment to the remainder. Because of the success of the pilot programs, legislation making the MIC concept permanent was passed in June 1979. With the foundation provided by this legislation, the hospitals, working under the direction of the New Jersey State Department of Health, were able to build on the original premise. The Department of Health drew up guidelines and criteria for operation under which the programs must operate before receiving designation. Areas investigated by the Department of Health's Office of Emergency Medical Services included organization of the program, medical supervision, staffing, equipment, communications, coverage areas, and participation in cooperative areawide planning.

After the existing programs had complied with the guidelines and criteria, letters of designation were sent out in the Fall of 1980 to the 10 lead hospitals, and to their associate hospitals. These early programs are often referred to as the

"grandfathered programs", because they were consolidated from the earliest ones in existence. With the inclusion of mobile intensive care services in the state's Health Care Facilities Act (as of January 1980), future growth of MIC services was covered under New Jersey's certificate-of-need law. It is noteworthy that there was no duplication of primary coverage areas. Further, each applicant went through a fiscal screen. Budgets had to be in line with those of comparable programs.

Mobile intensive care programs are currently approved for 95% of the state's population. Only primarily rural areas are not projected at this time to have MIC services. These types of services are not practical in very rural areas which have few acute calls, leading to "skill decay" among the personnel and underutilization of equipment.

Each covered area of the state is part of a regional mobile intensive care services system. The statewide system contains eight mobile intensive care "consortia," involving 45 approved hospital-based programs. Twenty-six of these programs are currently operating, with the remainder in various stages of development. Each consortium is headed by a "regional coordinating center." In addition to providing MIC vehicle coverage to a given population, the regional centers provide coordinated communications services and advanced life support dispatch to the hospitals in the consortium. Regional centers also deal with consortium-wide concerns about systems coordination. If a consortium is large enough, there may be one or more "area coordinating centers." In addition to providing MIC coverage to a given area, these hospitals assist in coordination and management of a part of the regional consortium. There are seven area coordinating centers in the statewide system. The last level of MIC service is the "associate hospital." This hospital provides MIC coverage to a given area and manages its own hospital-based program. On the following page is a map of New Jersey's MIC/ALS system. A six-page list of the various participating hospitals (by level) and a description of each service level are included as Attachments A and B respectively.

The key to the New Jersey advanced life support system is regionalization. The system exists for the benefit of all hospitals and patients in a given area. In fact, a patient can request to be taken to the hospital of his/her choice, even if that choice is different from the hospital where the MICU is based. Regionalization greatly assists in cutting down program costs; each hospital does not have to purchase every piece of the necessary equipment nor pay for every individual involved with program management. The cooperative nature of regionalization means that non-MIC hospitals can still be assured of receiving their "share" of patients. Regionalization also provides for "mutual aid" in case a local mobile intensive care program needs outside help or encounters difficulties in responding. Each piece of the system supports the others.

Usually, only about 15-20% of all emergency calls need the skills provided by mobile intensive care/advanced life support personnel. The sorting of calls through the local or regional dispatching centers and through the community's volunteer basic life support squads, using standardized procedures and protocols, minimizes the number of unnecessary MIC runs and false alarms, thus keeping the MIC vehicles available for life threatening situations. In fact, of the MIC/ALS runs which actually treat patients, 65-70% of the calls result in hospital admission; 5-10% are "dead on arrival"; the rest are treated and released in the hospital emergency department.

NEW JERSEY'S MOBILE INTENSIVE CARE SERVICE AREAS

1. **BERGEN AND PASSAIC CONSORTIUM**
(Hackensack MC: Englewood, Holy Name, St. Joseph's, Valley, Chilton, Pascack Valley, Greater Paterson, a Passaic hospital)

2. **GREATER NEWARK CONSORTIUM**
(University Hospital: Clara Maass, St. Elizabeth, Jersey City MC)

3. **TRI-COUNTY CONSORTIUM**
(Overlook: St. Barnabas, Mountainside, Memorial General, Rahway, Morristown Memorial, Dover, St. Clare's)

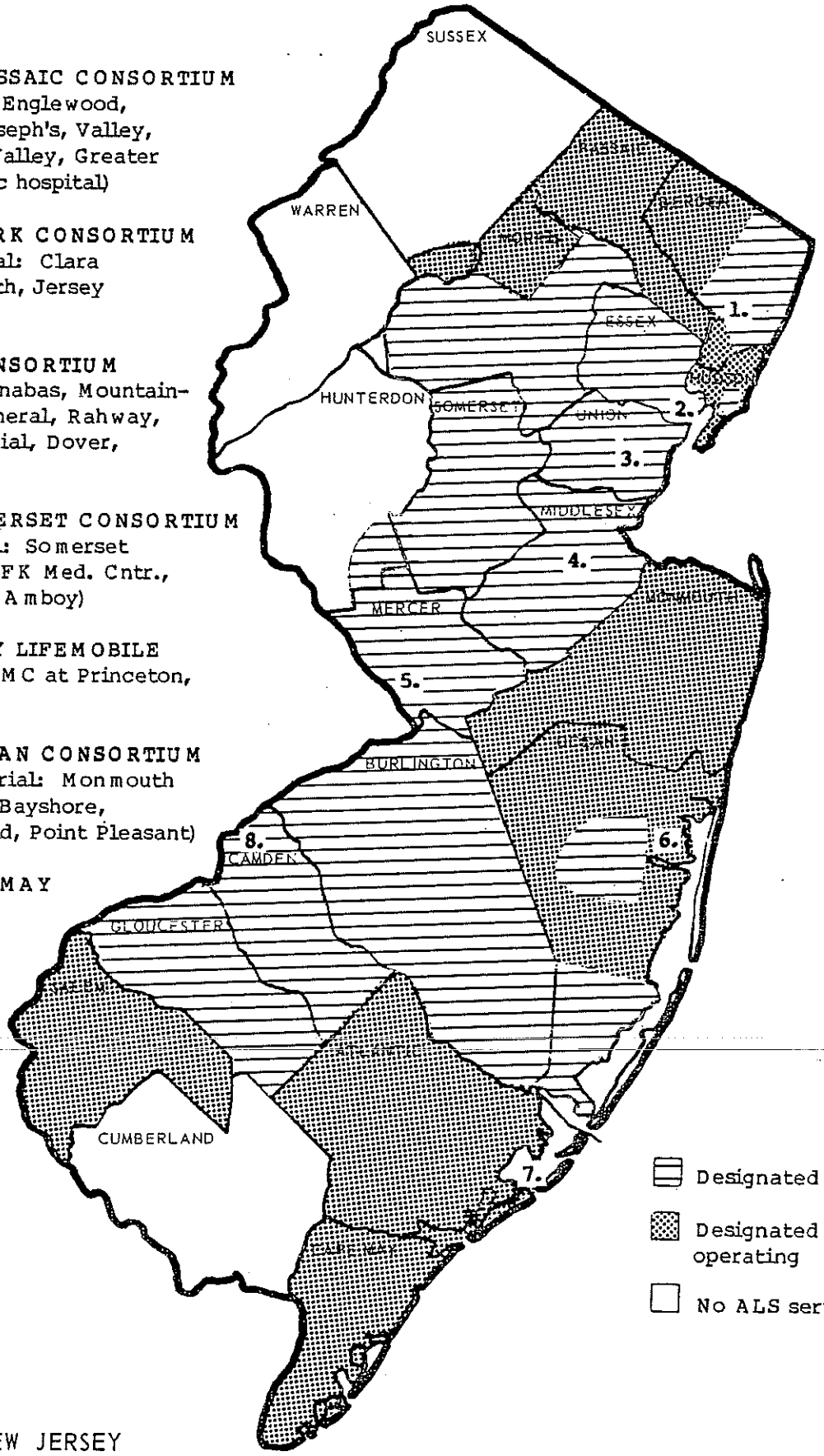
4. **MIDDLESEX/SOMERSET CONSORTIUM**
(Middlesex General: Somerset MC, Muhlenberg, JFK Med. Cntr., Raritan Bay/Perth Amboy)

5. **MERCER COUNTY LIFEMOBILE**
(Helene Fuld MC: MC at Princeton, Hamilton)

6. **MONMOUTH/OCEAN CONSORTIUM**
(Community Memorial: Monmouth MC, Jersey Shore, Bayshore, Riverview, Freehold, Point Pleasant)

7. **ATLANTIC/CAPE MAY CONSORTIUM**
(Atlantic City MC: Shore Mem., Burdette Tomlin, ACMC Mainland)

8. **SOUTH JERSEY CONSORTIUM**
(West Jersey Health System: Burlington Co. Mem., Underwood, Southern Ocean Co., Salem Co. Hosp. to be named)



STATE OF NEW JERSEY

A minimum population base of 125,000 is required for a hospital to receive approval to operate a single MIC vehicle. A population base of 250,000 is required for establishing an independent MIC program. These figures are based on the number of advanced life support calls which could be expected from a given population during a given day and were authenticated by the run experience of the pilot programs. Such a population base minimizes the idle time in the system, but still allows for quick response. Additional vehicles (above the 1/125,000 level) could be added to a system, if the actual call volume in the primary coverage area justified it. An example might be an area with a high elderly population which might have a greater need for MIC services than an area with a more homogenous population.

The Department of Health works to assure that a quality advanced life support service is delivered to the people of New Jersey who really need it for a reasonable cost. "Correcting mechanisms" have been built into the system. The development of these coordinated, regional advanced life support services represents a great deal of planning and effort at both the local and state levels.

"The Medicare Crisis"

Until recently, mobile intensive care services were reimbursed as inpatient indirect services; individual MIC/ALS patients did not receive a bill. Costs of providing the service were spread among patients (and their insurers) who were hospital inpatients. This cost came to about $186 per ALS patient treated and appeared to be one of the lowest total ALS rates in the nation. (This was the total cost for giving patient care, training personnel, operating the system, and providing system coordination and communications.)

Medicare, authorized by the federal Health Care Financing Administration (HCFA), was paying its "fair share" of MIC service as part of a special Medicare waiver under the New Jersey hospital reimbursement system. The New Jersey system is a prospective reimbursement system in which payment rates are set in advance for various diagnoses (the Diagnosis Related Groups system, or DRG) and each third party payor agrees to pay its "fair share" within its established benefit package. By state law, cost shifting is not allowed between payors. Under the system, Medicare was reimbursing for MIC services as Medicare Part A (inpatient services).

However, on September 16, 1982, HCFA, Region II, notified the New Jersey Hospital Rate Setting Commission that HCFA considered the MIC services to be outpatient services and therefore they were only reimbursable, as such, to the extent that they met the conditions for Part B coverage. As of November 1982, Medicare intermediaries had been instructed by Region II HCFA to reject all claims for MIC reimbursement under Part A and the Hospital Rate Setting Commission was told to remove mobile intensive care from the Medicare inpatient rates.

This situation created a number of problems because of the way that the New Jersey health care reimbursement system is structured and the way that mobile intensive care/advanced life support services have evolved in the state.

The Department of Health was told by Region II HCFA that the mobile intensive care/advanced life support services could be reimbursable under Part B, but only if:

a. they met the Medicare definition of advanced life support ambulance, which they do, except for one important point--New Jersey MIC vehicles generally do not transport patients; they have worked out transport agreements with the widespread volunteer basic life support system. Over the years, New Jersey's municipalities have subsidized these volunteer squads to some extent and the squads have become an important health care resource in the state. Building on this resource saved duplication of costly transportation services. (Ambulance was interpreted by Region II to mean a vehicle which transports patients; failure to meet this definition also meant that MIC was not reimbursable under Part A either, even if the patient were admitted to the hospital within 24 hours.);

or

b. a physician were present on the vehicle so that the care became "incident to a physician's services," and thus reimbursable under other provisions of Part B. (We were told that radio communications and telemetry were not enough to meet this requirement, even though under New Jersey law mobile intensive care services must be physician directed and the physician must sign off on the mobile intensive care run form. Interestingly, Medicare, in the Federal Register of March 2, 1983, (Vol. 48, No. 42, page 8909) sought to answer the dilemma of which services could be considered to "ordinarily require performance by a physician" and acknowledged that there is a "continuous evolutionary process in the practice of medicine whereby nonphysicians are trained by physicians to perform services that previously were performed only by physicians. This evolutionary process can result in cost savings and more efficient utilization of physician's time.")

In other parts of the country, advanced life support is usually provided by personnel who treat the patient and then transport the patient in a vehicle operated by the ALS program. This "transport model" is the one alluded to in the Medicare definition of ALS ambulance. Generally, the personnel who man the ALS vehicle are paramedics or specially trained nurses. Although doctors were used early in the history of ALS around the world and in the U.S., the use of on board physicians has been found to be unnecessary as the state-of-the-art has advanced. Today, use of radio communications and telemetry for contact between ALS personnel and a physician providing medical direction is considered appropriate. Reimbursement is usually provided through a fee-for-service billing mechanism, although some services receive subsidies from local or county government.

The New Jersey State Department of Health submitted a waiver request to HCFA, proposing that the MIC/ALS system will be changed to an outpatient (Part B) fee-for-service system. This structural change was necessary in order to meet Medicare requirements for continued reimbursement for mobile intensive care/advanced life support service.

So that MIC/ALS services could still build on New Jersey's volunteer base, in those places where volunteer basic life support services exist, we proposed to continue the two types of advanced life support services provided in the past:

1. Advanced life support given by a mobile intensive care program team with patient transportation provided in a vehicle operated by that program (this model primarily occurs in the highly urbanized areas, such as Newark and Jersey City, where volunteer services are scant),

and

2. Advanced life support given by a mobile intensive care program team with patient transport provided under a pre-arranged agreement in a vehicle operated by a local volunteer first aid or rescue squad (this model primarily occurs in the state's suburban and rural areas).

The waiver request consisted of the following:

1. A waiver of the Part B stipulation that advanced life support ambulances must be transport vehicles. The Medicare definition of Advanced Life Support (ALS) Ambulance states, "An ALS ambulance has complex specialized life-sustaining equipment and, ordinarily, equipment for radio-telephone contact with a physician or hospital. Typical of this type of ambulance would be mobile coronary units and other ambulance vehicles that are appropriately equipped and staffed by personnel trained and authorized to administer IVs (intravenous therapy), provide anti-shock trousers, establish and maintain a patient's airway, defibrillate the heart, relieve pneumothorax conditions, and perform other advanced life support procedures or services such as cardiac (EKG) monitoring." (Medicare and Medicaid Guide, March 1982, page 9205) We showed in our application that New Jersey's mobile intensive care services match the Medicare definition of advanced life support services.

   While the urban MIC services generally meet the transport stipulation, the suburban and rural services rely on prearranged transportation agreements with local volunteer first aid and rescue squads. We feel that these prearranged agreements constitute a "contract" between the mobile intensive care programs and the volunteer services to provide necessary patient transportation. While the patient is being transported, he/she is accompanied by the MIC staff and there is no break in care to the patient, nor is there "patient abandonment"--the local squad's vehicle temporarily becomes part of the total advanced life support system. This interdependency is vital to the continued smooth working relationship between the MIC programs and the local squads.

2. A waiver of the Medicare (Region II, HCFA) interpretation that mobile intensive care vehicles would have to have a physician aboard so that the care became "incident to a physician's services," and thus reimbursable under other provisions of Part B. As stated earlier, New Jersey law provides that radio communications and telemetry with a physician, or a specially trained nurse under physician direction, are a must to initiating advanced life support care. Standing orders are not allowed. Further, the directing physician must sign off on the mobile intensive care run form. These New Jersey stipulations show that the care must be physician directed, even through the physician is not physically present. The Medicare ALS definition does not require a

physician to be aboard an advanced life support ambulance in order for the service to be reimbursable under Part B.

3. Assurance that "bad debts" and uncollectables of this hospital owned and operated service could be put into the hospital's indirect costs, just as any other outpatient service (e.g., emergency department care) for which the hospital was unable to collect, and that Medicare would pay its "fair share" of these costs under Part A. This assurance was necessary so that all other payors will also pay their "fair share" under the New Jersey reimbursement setup explained earlier. If hospitals are unable to recoup their losses, the cost per run will rise dramatically.

4. Assurance that the New Jersey Hospital Rate Setting Commission will be allowed to approve hospital costs for MIC/ALS services, just as they approve other hospital costs.

In order to assure continuity of payment to the mobile intensive care hospitals, we asked that the discontinuance of the old reimbursement method be simultaneous with the initiation of the new reimbursement method.

Recent Developments

Since submission of the waiver request in April 1983, the Office of Emergency Medical Services and other applicable units in the Department of Health have spent a great deal of time and energy on the MIC conversion. HCFA has asked for additional information or clarification at various times. Meetings have been held with other parties, including Medicaid and the UROs. Additionally, many new mechanisms must be developed and put into place before a fee-for-service MIC system can become a reality.

The issues of reimbursement for service and program evaluation have generated much discussion within the Department. Health Economic Services has designed fiscal guidelines for the MIC programs and, in cooperation with OEMS, has worked out an acceptable method so that the MIC service hospital can bill the hospital which receives the MIC patient. The receiving hospital will bill the MIC patient at the rate set by the MIC service hospital. MIC patients who are admitted to the receiving hospital as inpatients will have the MIC charges added to their hospital bill. MIC patients who are treated and released from the emergency department will have the MIC charges billed as outpatient services. In the case of the patient's death in the field or in the hospital emergency department, following call of an MIC "code" and subsequent ALS work-up, the decision as to whether the patient's family will receive a bill for MIC services will be consistent with usual hospital practice regarding billing when a patient dies in the emergency department. MIC calls which do not result in ALS treatment will not be billed. The receiving hospitals will agree to reimburse the MIC services hospitals.

The other involved process which has resulted from the change to a fee-for-service MIC system developed from the need for closer monitoring and evaluation of the MIC service hospitals now that insurers or patients will pay for services directly. The OEMS staff is quite involved in formulating strategies and writing materials which will be used once the change is made. Attached (as Attachment C) is a summary of the evaluation protocols which will be used (these will also contribute to the evaluation plan which was given in the HCFA waiver request). The MIC quarterly report form is being revised to include information on

the method of patient transportation, the method of paying for MIC services and information on the towns which generate MIC calls.

In order to insure that the MIC programs are providing quality services at the price they agreed upon, new audit and inspection visits will also be initiated. These activities have necessitated a review of staff assignments and have generated some new paperwork which will be field tested once the new fee-for-service system is initiated.

As of this report, the Department has not received a definite start date from HCFA for fee-for-service MIC care. In the meantime, the MIC programs continue to care for the critically ill and injured in their areas. (See Attachments D and E for statistics from the first and second quarters of 1983.)

Hospital	Regional Consortium	Total Number Vehicles Approved by OEMS	MICU Operational Data	
			Number Vehicles Approved and Operating	Number Vehicles Approved But Not Yet Operational (expected date of operation)*
Hackensack Medical Center	Bergen/Passaic	2	1	1 (Winter 1983)
Overlook Hospital	Tri-County	2	2	0
Helene Fuld Medical Center	Mercer County Lifemobile	3* *3 FTE (Trenton Lifemobile plus 10 volunteer units in operation at emergency squads-coordinated by Helene Fuld but not directly reimbursed) are used as control figure for program planning and fiscal analysis	3*	0
West Jersey Health System	South Jersey	4	4	0
Middlesex General Hospital	Middlesex/ Somerset	2	2	0
University Hospital (UMDNJ)	Greater Newark	2	2	0
Community Memorial Hospital	Monmouth/Ocean	2	1	1 (Winter 1983)
Atlantic City Medical Center	Atlantic/Cape May	1	0	1 (Winter 83/84)

*Projected dates of operation are NJDSH, not the hospitals'

Hospital	Regional Consortium	Total Number Vehicles Approved by OEMS	MICU Operational Data	
			Number Vehicles Approved and Operating	Number Vehicles Approved But Not Yet Operational (expected date of operation)*
Muhlenburg Hospital	Middlesex/Somerset	1	1	0
Underwood Memorial Hospital	South Jersey	2	2	0
Burlington County Memorial Hospital	South Jersey	2	2	0
Jersey City Medical Center	Greater Newark	4	1	1 (Winter 83/84) 2 (1984)
Morristown Memorial Hospital	Tri-County	1	1	0
Valley Hospital	Bergen/Passaic	2* *(1.5 for planning and fiscal analysis -second vehicle only functions during peak periods up to ½ time)	1	1 (1984)
St. Joseph's Hospital and Medical Center	Bergen/Passaic	1	0	1 (Winter 83/84)

*Projected dates of operation are NJSDH, not the hospitals'

Hospital	Regional Consortium	Total Number Vehicles Approved by OEMS	MICU Operational Data	
			Number Vehicles Approved and Operating	Number Vehicles Approved But Not Yet Operational (expected date of operation)*
St. Elizabeth Hospital	Greater Newark	1	1	0
Memorial General Hospital	Tri-County	2	2	0
St. Barnabas Medical Center	Tri-County	1	1	0
Mountainside Hospital	Tri-County	1	1	0
Rahway Hospital	Tri-County	1	1	0
Somerset Medical Center	Middlesex/Somerset	1	1	0
Englewood Hospital Association	Bergen/Passaic	1	1	0
John F. Kennedy Medical Center	Middlesex/Somerset	1	1	0
Clara Maass Medical Center	Greater Newark	1	1	0
Holy Name Hospital	Bergen/Passaic	1	1	0

*Projected dates of operation are NJSDH, not the hospitals'

Hospital	Regional Consortium	Total Number Vehicles Approved by OEMS	MICU Operational Data	
			Number Vehicles Approved and Operating	Number Vehicles Approved But Not Yet Operational (expected date of operation)*
Southern Ocean County Hospital	South Jersey	1	1	0
Dover General Hospital & Medical Center	Tri-County	1	0	1 (Fall 1983)
St. Clare's Hospital	Tri-County	1	0	1 (1984)
Pascack Valley Hospital	Bergen/Passaic	1	1	0
Greater Paterson General Hospital	Bergen/Passaic	1	0	1 (Winter 83/84)
Atlantic City Medical Center-Mainland Division	Atlantic/Cape May	1	0	1 (Winter 1983)
Shore Memorial Hospital	Atlantic/Cape May	1	0	1 (Winter 1983)
Bayshore Community Hospital	Monmouth/Ocean	1	0	1 (Winter 83/84)
Freehold Area Hospital	Monmouth/Ocean	1	0	1 (Winter 1983)

*Projected dates of operation are NJSDH, not the hospitals'

Hospital	Regional Consortium	Total Number Vehicles Approved by OEMS	MICU Operational Data	
			Number Vehicles Approved and Operating	Number Vehicles Approved But Not Yet Operational (expected date of operation)*
Monmouth Medical Center	Monmouth/Ocean	1	0	1 (Winter 1983)
Point Pleasant Hospital (Northern Ocean County Hospital System Inc.)	Monmouth/Ocean	1	0	1 (Winter 83/84)
Riverview Hospital	Monmouth/Ocean	1	0	1 (Winter 83/84)
Jersey Shore Medical Center-Fitkin Hospital	Monmouth/Ocean	1	0	1 (Winter 83/84)
Burdette Tomlin Memorial Hospital	Atlantic/Cape May	1	0	1 (Winter 83/84)
Perth Amboy General Hospital (Raritan Bay Health Services)	Middlesex/Somerset	1	0	1 (Fall 1983)
Chilton Memorial Hospital	Bergen/Passaic	1	0	1 (1984)
Passaic City hospital to be named	Bergen/Passaic	1 (planned; specific approval to come)	0	1 (1984)
Salem County hospital to be named	South Jersey	1 (planned; specific approval to come)	0	1 (1984)

*Projected dates of operation are NJSDH, not the hospitals'

Hospital	Regional Consortium	Total Number Vehicles Approved by OEMS	MICU Operational Data	
			Number Vehicles Approved and Operating	Number Vehicles Approved But Not Yet Operational (expected date of operation)*
Hamilton Hospital	Mercer	None (see Helene Fuld)	None-radio control only	0
Medical Center at Princeton	Mercer	None (see Helene Fuld)	None-radio control only	0

Totals All Programs

45 Approved	8 Consortia 8 Regional Coord. Centers 7 Area Coord. Centers 30 Associate Hospitals	60	36	8 operational 1983 9 operational winter 83/84 7 operational 1984

*Projected dates of operation are NJSDH, not the hospitals'

data current as of 7/21/83

ATTACHMENT B

COMPONENTS WITHIN LEVELS OF MIC SERVICE:
MOBILE INTENSIVE CARE VEHICLES AND HOSPITALS

1. MIC VEHICLE

Fixed Costs

- 9.4 FTE paramedics or MIC nurses per vehicle (or equivalent dollar value for volunteer services)
- ½ FTE training coordinator per vehicle
- ½ FTE operations coordinator per vehicle
- Drivers, where need is documented
- Vehicle costs
- Equipment
- Back-up vehicle allowance (1 back-up vehicle per 2 MIC vehicles is appropriate)

Variable Costs

- Gasoline
- Expendable supplies
- Expendable medications and IVs
- Necessary repairs

2. ASSOCIATE HOSPITALS

- Communications equipment, as approved by OEMS (including oscilloscope, tape recorder, etc.)
- ½ FTE secretary
- .10 FTE medical director
  *NOTE: program coordination would be provided by FTE positions allowed under the vehicle staffing.

3. AREA COORDINATING HOSPITAL

- Communications equipment, as approved by OEMS (same setup as the Associate Hospital)
- 1 FTE systems coordinator
- 1 FTE secretary
- .12 FTE medical director

4. REGIONAL COORDINATING HOSPITAL

- "Super" communications system with matrix and computer, as approved by OEMS
- 1 FTE systems coordinator
- 1 FTE secretary
- 4.5 FTE communicators/dispatchers
- .15 FTE medical director

5. OTHER COSTS TO CONSIDER

- Training costs (including inservice and initial paramedic certification and recertification)
- Depreciation
- Necessary indirect costs

ATTACHMENT C

OFFICE OF EMERGENCY MEDICAL SERVICES
MOBILE INTENSIVE CARE (MIC) PROGRAMS EVALUATION

Quarterly Reports

Reports from the mobile intensive care programs to the Office of Emergency Medical Services are submitted on the 15th day of January, April, July, and October. All numbers in the reports represent totals for the previous three-month reporting period with information ending on the last day of the last month of that period.

These reports are used for several purposes, chiefly (1) for compilation of statistics about the mobile intensive care system as a whole, (2) for information about the operation of the eight MIC consortia, and (3) for data collection on the individual MIC hospitals. This last purpose is the one which is most relevant to the discussion on reimbursement.

Information on the quarterly report form includes the program's MIC call volume, number of patients treated, types of patients treated, procedures used, and disposition of patients. Planning is already underway to modify the report form to include financial impact data (e.g., source of payment for the service), once the change to "for pay" service is made.

Information from the forms is compiled by consortia (groups of MIC hospitals which operate together) and the consortia results are compared. Individual data from the programs is also compared, especially within consortia.

It is during the initial review of the submitted forms or during the transfer of data from the forms to the comparison sheets that pecularities in the data are picked up. As examples, a program might report less than three calls per vehicle per day; the program would be targeted for followup to see if it were actually running below the standard. Errors could be made in counting the total number of advanced life support (ALS) calls, then the breakdowns in the three intervention areas would not match the reported totals. All calls counted as ALS might exceed the number of calls needing telemetry (criteria call for all ALS calls to be telemetered). When irregularities in the reports are discovered, a followup telephone call is made. Often the irregularity is simply a math error or an error of omission.

If warranted, a followup visit is made to the program to determine if the program failed to meet MIC criteria for operation. If a program has failed to meet criteria for operation, the steps outlined under the section, "Mobile Intensive Care Program Parameters," would be invoked.

The MIC quarterly report is only one method, in an arsenal of methods, by which the MIC programs are reviewed and evaluated. But, it is an extremely important one, as it contains a wealth of information and is often the first indicator of a program's ability to function smoothly and in a cost-effective manner.

ATTACHMENT C

Mobile Intensive Care Program Parameters

In order to assure that the mobile intensive care programs are delivering a quality service in a cost-effective manner, OEMS has identified a number of parameters and methods of reviewing program operation.

I. OPERATING AND EVALUATION PARAMETERS

(A) Call Volume: Programs should average more than three (3) advanced life support calls per vehicle per day for each reporting quarter.

(1) Call volume between 2.7 and 3.0 calls per vehicle per day in a quarter warrants a written warning from the Office of Emergency Medical Services. A program receiving two consecutive warnings undergoes an observation period.

(2) Call volume at or below 2.6 calls per vehicle per day automatically warrants an observation period.

(B) Response Rate: Programs should be able to respond to at least 85% of the dispatches for ALS assistance made to their service.

(1) Programs with less than an 85% ability to respond to calls for ALS assistance during any quarter receive a written notice and undergo observation. (All programs are required to have back-up agreements with neighboring programs so that patients' calls for assistance are always answered.)

(C) Run Review: MIC run reports are reviewed periodically for accuracy, completeness, and compliance (usually in conjunction with a field audit or inspection visit).

(1) A minimum of every tenth run form (regardless of patient outcome) for each MIC program is reviewed by OEMS staff.

(a) A baseline minimum of 90% completeness/accuracy of the reviewed forms is required (i.e. 90% of the forms will be accurate and complete).

(b) It is assumed that the review will find that all MIC calls have been reported on a run form which is kept by the MIC program. A baseline minimum of 98% compliance is required (i.e. there will be a run form available for a minimum of 98 out of every 100 runs in the past quarter).

(2) Programs falling below the 90% minimum for completeness/ accuracy of run forms or the 98% minimum for reporting compliance receive a written warning from OEMS. A program receiving two consecutive warnings undergoes an observation period under OEMS auspices.

(D) Audit: Each MIC program is subject to an audit procedure to assure that it handles a suitable proportion of advanced life support calls.

(1) OEMS field audit: MIC programs undergo periodic field audits. (During the field audit, OEMS staff ride with the program for at least one shift and write up their observations, thus giving a profile of a day's activitites.)

(2) If any field audit reveals that a program is handling a disproportionate amount of basic life support calls (as compared to a norm developed from MIC program experience), then the program receives a written notice from OEMS and is put under an observation period under OEMS auspices.

(E) Inspection Visits: Each MIC program is subject to an unannounced inspection visit at least once a year. (The inspection visit is conducted by a team from OEMS. The team looks at program organization, medical control, staffing, and equipment and vehicles.)

(1) Programs with a small number of deficiencies, or whose infractions involve failure to comply with minor points of the general MIC guidelines and standards of operation, are given a specified amount of time to correct the problems.

(2) Programs which substantially fail the inspection visit are sent written notice and undergo an observation period, during which time they are expected to rectify the problems.

II. OBSERVATION PERIOD

Steps leading to a program being under observation were outlined under the parameter discussion. Once a program is put under observation, it receives technical assistance from OEMS. This technical assistance includes help in searching for causes of and solutions or corrective measures to the problem(s). Each program which is put under observation has a reasonable amount of time to correct the deficiencies. The time limit depends on the gravity of the detected problem and the reasonable amount of time needed to rectify it. Additionally, if a particularly serious problem exists, the program might be kept under observation to be sure that the problem does not recur. Observation periods are for a maximum of one year. While under observation, programs are subject to followup surprise inspection visits. If the program is successful in solving its problems, it will be released from observation. If it is unsuccessful, it faces loss of funding and "dedesignation."

III. LOSS OF FUNDING AND "DEDESIGNATION"

If a program is unable or unwilling to rectify its problems, OEMS will recommend to Health Economic Services and the Hospital Rate Setting Commission that the program lose reimbursement eligibility for providing mobile intensive care services. Further, OEMS will suggest one of several options to the Department of Health: (1) that the program be "dedesignated" and the program's service area be reassigned to another agency, (2) that the program be "dedesignated" and its area be shared by several adjoining programs, or (3) that the program join with another program in its consortium to form a new, and stronger, operating agency.

IV. EFFECT OF LOSS OF FUNDING AND "DEDESIGNATION"

Supension of a program's operating authority does not mean that there will be a disruption of MIC service in the area. A 30 to 90-day transitional period is allowed to select a new operating option. During that time, the program hospital, or another hospital from the same or a neighboring consortium, will be asked to continue to provide service to area residents. The ultimate successor agency should be one with an established MIC track record and should be adjacent to and familiar with the service area of the former agency.

V. DEFINITIONS

(A) Advanced Life Support Care: Advanced life support care means an advanced level of prehospital care that includes noninvasive basic life support functions and advanced techniques and procedures, such as:

- telemetry
- cardiac defibrillation
- Administration of selected medications, drugs, and solutions
- intravenous therapy
- use of adjunctive medical devices (e.g., use of specialized airways)
- sophisticated trauma care (e.g., use of the MAST garment)
- doctor ordered EKG monitoring and patient observation
- any other authorized techniques and procedures approved by the Commissioner of Health and the Board of Medical Examiners and taught in an OEMS approved advanced life support training program

(B) Completed Advanced Life Support Call: A completed ALS call should consist of four parts:

- physician assessment, by radio, of the patient's overall condition, based on transmission of the patient's vital signs and reported symptoms and findings taken by the paramedic or mobile intensive care nurse at the scene
- transmission and interpretation of a telemetered cardiac pattern
- physician's orders to use a treatment methodology considered under New Jersey law to be an advanced life support procedure or to monitor the patient's EKG and keep the patient under observation

- transportation of the patient to a hospital emergency department, accompanied by a member or members of the ALS team (with the exception of patients given resuscitation in the field and pronounced clinically dead in the field).

Patients do not necessarily have to be admitted to the hospital as inpatients to be considered bona fide ALS cases. Patients presenting with seizures, diabetic emergencies, acute respiratory distress, allergic reactions, chest pain with classic signs and symptoms, and trauma with potential for internal injury are all candidates for possible ALS intervention. Prompt treatment in the field can often alleviate or lessen the problem and the patient can be released after observation or followup treatment in the emergency department.

In the case of the patient's death in the field or in the hospital emergency department, following call of an MIC "code" and subsequent ALS work-up, the decision as to whether the patient's family will receive a bill for MIC services will be consistent with usual hospital practice regarding billing when a patient dies in the emergency department. For statistical purposes, the DOA patient will be considered to be a legitimate ALS response, if (1) ALS procedures were performed in an attempt to revive the patient, or (2) if ALS procedures were performed prior to the patient's death.

VI. REQUEST FOR ADDITIONAL VEHICLES

If call volume exceeds seven (7) calls per-day-per-vehicle, then a request for an additional vehicle will be considered. However, all programs must have a minimum of 3.0 calls per-day-per-vehicle to avoid being placed under observation. If the operating agency cannot meet the calls-per-vehicle criteria after adding the new vehicle, the agency will be asked to take the additional vehicle out of service.

ATTACHMENT D

MICU ACTIVITY REPORT

1st Quarter 1983
(January, February, March)

MICU Dispatch	19,267	100%
Recalls	3,639	19%
No MICU services required	2,270	12%
Patient refused service	323	2%
BLS services only	3,308	17%
ALS completed calls	9,727	50%
ALS Patients (completed calls)	9,727	100%
ED Treatment & Release	2,337	24%
Hospital Admission	6,680	69%
D.O.A.	710	7%

* * *

Cardiac	4,574	47%
Medical Emergency	4,389	45%
Trauma	764	8%

ATTACHMENT E

MICU ACTIVITY REPORT

2nd Quarter 1983
(April, May, June)

MICU Dispatch	20,910	100%
Recalls	4,620	22%
No MICU services required	1,941	9%
Patient refused service	444	2%
BLS services only	3,087	15%
ALS completed calls	10,818	52%
ALS Patients (completed calls)	10,818	100%
ED Treatment & Release	2,491	23%
Hospital Admission	7,590	70%
D.O.A.	737	7%

* * *

Nature of ALS Calls		
Cardiac	4,640	43%
Medical Emergency	4,919	45%
Trauma	1,259	12%