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Medical School Sweepstakes

The US Supreme Court will rule later this year on the constitutionality of a special minority admissions program at the University of California at Davis medical school (the "Bakke Case"). A finding against the program—expected by many—will deal a devastating blow to the principle of affirmative action, a policy of deliberate preference for minorities as a means of redressing past discrimination.

But theory aside, special minority admissions as practiced by US medical schools is already dead. Only 8.9 percent of those entering medical school last fall were minority students.

Admission to medical school is a ticket into the world's best paid and most respected profession. Until the late '60s, however, it was also one of the world's most exclusive tickets—restricted with few exceptions to white, middle- and upper-class males.

Today, following the agitation of the civil rights movement and the adoption of affirmative action programs, there is a widespread belief that the situation has been reversed. A persistent rumor, abetted by recent reverse discrimination lawsuits, holds that middle-class sons cannot get into medical school because of preferential treatment accorded minority applicants. The facts simply do not support the case.

The myth of reverse discrimination is grounded on two basic misconceptions:

- That the increased enrollment of non-white students means fewer admissions for whites;
- That affirmative action implies the acceptance of hordes of less-qualified students who will become, as charged by such opponents as Harvard professor Bernard D. Davis, substandard physicians.

A Health/PAC study of minority first-year enrollments—both nationally and in New York City—totally debunks these notions.

Two Steps Forward, Two Steps Back

The issue of minority admissions is a complex one. Of course, medical schools are loath to admit ever having practiced overt discrimination, although as late as 1963, five schools were still officially closed to Blacks. Few minority students applied to medical school and even fewer were able to compete with the predominantly white male graduates of prestigious colleges. Even for the miniscule number able to pass the scrutiny of admissions committees, the paucity of financial assistance was, more often than not, an insurmountable barrier.

The result of this exclusionary system was that in 1969, only 2.2 percent of all physicians in the US were Black—fewer per 1,000 Black population than had been the case in 1940. First-year minority admissions to medical school totaled only 4.8 percent whereas 12 percent of the population was Black.

Belatedly, and in response to mounting civil rights pressure, medical schools adopted a voluntary program to increase minority enrollments. In 1970 the Association of American Medical Colleges (AAMC), a prestigious national organization of medical schools, set a goal of 12 percent first-year minority admissions by 1975, a target intended "to achieve equal representation," according to the AAMC. While the 12 percent target might be considered equitable in the long run, given the lengthy history of discrimination and the under-representation of Black doctors, a serious argument exists that medical schools should have chosen a higher figure as a compensatory measure toward minority admissions.

Encouraged by generous federal aid, substantial growth in medical school enrollment during the period in question should have made this target easy to achieve. Total first-year enrollment in medical schools increased from 10,422 in 1969 to 15,295 in 1975—an increment of 4,873. To have achieved 12 percent minority admissions by 1975 would only have required that 1,334 (27.4 percent) of these additional places go to minority students. Yet only 890 minority students were actually admitted, and minority admissions peaked in 1974 at only 10 percent. They have declined steadily since then, falling to 9.1 percent in 1975 and 8.9 percent in 1976. The original goal of 12 percent is nearly as distant today as it was in 1969.

The NT Meds:
Minority Students Lose 6-1

The performance of New York City's medical schools generally is one extreme in a na-
national picture of failure to attain proportional enrollment for minority students. New York City's medical schools, despite the city's claim as the nation's leading liberal metropolis, enrolled only 6.9 percent minority students in the fall, 1976 entering class.

In fact, there were fewer minority students enrolled in the 1976 entering class at New York City's seven medical schools than there were in 1971. Only 75 of the 1,091 students beginning their medical education in 1976 were minority students; in 1971 there had been 79 out of a class of 936.

The only medical school in New York to exceed the AAMC goal of 12 percent minority enrollment was Cornell, which reported 12.9 percent minority enrollees in the current term. When Cornell is excluded, the picture is completely dismal: remaining medical schools' first-year minority enrollment is only 5.6%.

As a result of failure to keep up with national trends, the New York City schools today account for a smaller percentage of the nation's minority medical students than they did in 1969, although the City contains a larger...
Back to Bakke

Many affirmative action advocates worry that the "Bakke case" now before the US Supreme Court is the wrong case at the wrong time and for the wrong reasons.

The case involves charges by Alan F. Bakke that he was denied admission to the University of California at Davis medical school because of preferential admissions of minority students. Bakke's contention that the medical school's actions were unconstitutional was supported by a ruling from the California Supreme Court.

What makes the case so difficult are the facts. The medical school never denied that so-called "lesser qualified" minority students were admitted. Nor is the school willing to argue that its special minority program was installed to redress past discrimination (an important legal point, since the courts have ruled that the need for catch-up constitutes legal grounds for preferential treatment.)

Instead, university lawyers argued that the program was necessary because few minority applicants could pass muster through the regular admissions committee. The California Court rejected this excuse, explicitly challenging the standard admission criteria:

"While minority applicants may have lower grade point averages and test scores than others, we are aware of no rule of law which requires the University to afford determinative weight in admissions to these quantitative factors. In practice, colleges and universities generally consider matters other than strict numerical ranking in admission decisions....In short, the standards for admission employed by the University are not constitutionally infirm except to the extent that they are utilized in a racially discriminatory manner. Disadvantaged applicants of all races must be eligible for sympathetic consideration, and no applicant may be rejected because of his race....We do not compel the University to utilize only the highest objective academic credentials as the criteria for admission."

What the court did not note is that every existing medical school admissions criterion—grade averages, Medical College Admissions Tests (MCATs), and preferences for prestige colleges—reproduce the very cultural biases that minority admissions programs are designed to redress. Further, both the MCATs and medical school grades have been discredited as valid predictors of physician performance.

Admitting that most minority applicants could not be admitted through percentage of the US minority population. In 1969, 7.2 percent of all first-year minority medical students were enrolled in New York City medical schools; by 1976 the percentage had dropped to 5.4.

To achieve the AAMC goal of 12 percent, approximately half of all additional first-year places at New York City's medical schools would have gone to minority students. In fact, only 16 percent did so in the period from 1969 to 1976.

Meanwhile, the primary beneficiaries of medical school expansion—both in New York City and nationally—were nonminority students. Between 1969 and 1976 there were 247 new places created at the seven schools. Only 39 of these went to minority students.

Thus, minority enrollment in New York—the national capital of medical research and education—has, throughout the decade, trailed the rest of the nation. Today, it lags behind the national average by a full 25 percent. In 1976, with the nationwide percentages of minority enrollment declining, New York City leads the downhill rush.

The $64,000 Question

Unfortunately a medical education remains today, as always, primarily an opportunity for the privileged. While only 24 percent of the
these regular admissions procedures, the medical school argued that a special program was the best way to insure a supply of physicians for minority communities. The University thus explicitly assumed that minority physicians will serve minority populations.

Declaring that there is "no empirical data to demonstrate that any one race is more selflessly socially oriented or by contrast that another is more selfishly acquisitive," the Court challenged this, suggesting that the university incorporate its "concern" into its admissions procedures, adding that:

"An applicant of whatever race who has demonstrated his concern for disadvantaged minorities in the past and who declares that practice in such a community is his primary professional goal would be more likely to contribute to alleviation of the medical shortage than one who is chosen entirely on the basis of race and disadvantage."

Finally, the Court suggested that "in addition to flexible admission standards, the University might increase minority enrollment by instituting aggressive programs to identify, recruit and provide remedial schooling for disadvantaged students of all races. . . ."

Clearly, the medical school could have accommodated the court by changing its admission procedures. Instead the University of California Regents voted, against the advice of knowledgeable affirmative action lawyers, to appeal the case to the Supreme Court. The action, some have argued, is tantamount to sabotaging its own program.

By appealing to the highest court, the case puts in jeopardy every affirmative action program in the country, whether in school admissions or employment practices. The case is expected to establish legal precedent against which further challenges to affirmative action will be judged. As such, the Bakke case is a pitifully weak reed upon which to rest much of the anti-discrimination progress of the last decade.

A final irony of the Bakke case is that the U.C. Davis medical school—newest of the five in the University of California system—operates a private admissions program for the sons and daughters of influential Californians. Dr. C. John Tupper, the school's dean, has been accused of "trading admissions to the school for favors from powerful people." (New Physician, November, 1976.) Tupper reportedly justified such practices by pointing out that U.C. Davis is a new school and that it needs political support in California. Evidently, should California Governor Jerry Brown ever choose to have a Black son or daughter, his offspring would have no fears of exclusion from U.C. Davis by opponents of "reverse discrimination."

It is not surprising that high family income is the single most important predictor of medical school admission. In April, 1976, the seven deans of New York City's medical schools estimated that every student entering medical school in the fall of 1976 would have to spend $64,000 to finance four years of school. Nationally, the figure exceeds $50,000, while at two schools (Georgetown and George Washington) tuition alone is now $12,500 a year.

Even at the height of minority enrollment—from 1969 to 1974—few medical schools made permanent changes in their methods of recruitment or selection, or in the distribution of assistance. Relatively more was allocated to minority students, but the pie was expanding
and there was plenty to go around. Admis-
sions officers now predict that declining
economic conditions (read: government fund-
ing) coupled with the escalating costs of at-
tending medical school could erase past gains
in a few short years.(11)

**The Best Defense is a Good Offense**

The disappointing results of nearly a
decade of "affirmative action"—especially the
disturbing decline in minority admission
rates—have not stimulated strong counter-
measures on the part of either the federal
government or the medical schools them-
selves. Instead, excuses to justify the situation
and attempts to lower expectations and objec-
tives have become the order of the day.

Spearheading the retreat, Dr. Bernard B.
Davis, Harvard University professor of physi-
ology, charged in a widely reported *New
England Journal of Medicine* article (May 13,
1976) that academic standards were threaten-
ed by increased admission of minority stu-
dents. Raising the specter of unqualified phy-
sicians leaving "a swath of unnecessary
deaths behind," Davis was roundly criticized
by Harvard's Dean Robert E. Ebert for
speaking out of school. According to press
accounts, however, his remarks drew wide-
spread concurrence in medical school circles.

While the Davis incident might be written
off as the rantings of an unreconstructed ne-
derthal, Davis was subseguently promoted
by his Harvard colleagues and the Bakke case
may become icing on the cake for more
sophisticated opponents of minority admis-
sions.

The Bakke case involves a suit filed in 1975

![NY Medical School Enrollment: 1969-1976](image)
by Allan Bakke, an applicant for admission to the University of California at Davis medical school, claiming the school unconstitutionally denied him access, although his admissions test scores were higher than some minority applicants who were admitted. The California Supreme Court ruled in Bakke's favor, finding the school's admission practices unconstitutional.

The school has appealed to the US Supreme Court, seeking to have the California court decision reversed. The case is a major challenge to the concept of special minority admissions programs in general, and at least some have argued that the medical school's own brief in the case is ambivalent at best, and may result in sabotaging minority admissions programs nationally. (See Box, page 4.)

If the Supreme Court upholds the medical schools minority admissions program, it is unlikely to substantially increase minority enrollments. At best, medical schools can be expected to maintain current low-level programs.

Whatever the outcome of the case, there is no evidence that US medical schools are about to embark on anything like the catch-up program necessary to substantially increase the numbers of minority doctors. In fact, the data suggest that even without legal sanction for their actions, the medical schools are already on a backward trajectory.

Affirmative action was established in the first place as a response to social pressures exerted from outside the closed circle of medical education. Dr. Alvin F. Poussaint, Associate Dean of Students at Harvard, characterized the present period as a "movement to reassert the right of the privileged class to the plums." Poussaint concludes: "I see a political, not academic, solution to this problem."

—Barbara Caress

REFERENCES

2. Ibid.
4. Ibid., p. 1.

A HEALTH/PAC SPECIAL REPORT

The Myth of Reverse Discrimination

The full report from which this article and a front page story in the April 28, 1977 New York Times were drawn is available from Health/PAC.

The report contains numerous tables and charts which detail the sorry story of declining minority admissions both nationally and among New York City's medical schools.

Copies of "The Myth of Reverse Discrimination: Declining Minority Enrollment in New York City Medical Schools" cost $1.50 plus $.50 for postage.
Medical Education Since Flexner

Physicians in the United States have historically been selected predominately from families with business and professional occupations. They have also been predominately male and white. To understand how such class, sex and racial patterns originate and how they serve to perpetuate both established medicine and unequal delivery of care, it is necessary to examine the educational system and its relation to the larger society.

Schooling in America is more than acquiring skills. It also involves such major functions as:

- **Socialization**: Children learn early the need for punctuality and for following intricate rules without explanation; they are also taught such values as competition through a grading system where only a few can be on top. Such behaviors help condition young people for a labor market where punctuality, low absenteeism and rule-following increases profits generated by their work.

- **Social Selection**: A second function of schooling is the sorting out of social groups for specific levels in workplace hierarchies. One selecting mechanism is vocational counseling that encourages nonwhites, women and working-class students to enter different areas of study and work than whites, men and middle-class students. Another is the powerful combination of different learning opportunities and of admissions tests that are largely based on past learning and socialization.

Often, decentralized school funding and residentially segregated housing—both by race and by social class—channel working-class and minority students into more crowded schools with fewer educational materials and less experienced teachers. Students from such schools must then compete for college admission with students from schools with more than twice as many dollars spent per pupil. Finally, higher education is best understood as a commodity purchased according to one’s ability to pay: ability to pay is as important as “IQ” in determining whether a student will ever attend college and in determining what type of college the student will enter—e.g., a two-year, “terminal track” vocational college or a four-year college with premedical courses.(1,2)

Every year this complicated socialization and selection network operates at elementary, secondary and undergraduate educational levels to produce—at one of its extremes—an elite group of potential medical school enrollees. Once in medical training, they enter a new system—one which not only reinforces their elite status but makes them critical agents in the selection and socialization of
those at the other end.

US physicians—as definers of disease causes and treatments—potentially affect both the direct and indirect accumulation of capital, the legitimation of the existing social system, and the social control of other classes. They can therefore be viewed as critical for reproducing the American social order, and it is from this perspective that one can best understand their selection from business and professional families.

**Class: Perpetuating the Hierarchy**

The composition of physicians by social class has gone virtually unchanged in the United States since the medical education reforms initiated by Carnegie and Rockefeller corporate interests in the early 1900s and introduced between 1910 and 1920 to the nation’s medical schools.

These reforms closed a disproportionate number of medical schools previously open to working-class youth, a fact Flexner admits in his report,(3) and left open schools with generally higher tuition levels and stricter admissions policies.(4) Surviving schools revised admissions to require prior college study and mandated full-time course loads, eliminating part-time and evening study needed by working youth.(5) New licensing restrictions, meanwhile, prohibited the practice of medicine by those who might try other means of education.

Physicians thus became a strongly middle-class group, and working-class youth were effectively barred by the new structure of medical education. They remain effectively barred today.

A number of studies of the class origins of physicians reveal how little change has occurred in the past half century:

- Adams showed that the rated "occupational prestige" of physicians' families of

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**Table 1**

Medical School Enrollees by Fathers' Occupation, 1946-1973

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physician</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entrants*</td>
<td>13.2%</td>
<td>11.5%</td>
<td>14%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>13.4%</td>
<td></td>
</tr>
<tr>
<td>Freshmen b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other Professional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owner/Manager</td>
<td>30.0</td>
<td>31.0</td>
<td>27</td>
<td>27</td>
<td>25</td>
<td>20</td>
<td>18.9</td>
<td></td>
</tr>
<tr>
<td>Subtotal: Prof., Managerial &amp; Proprietal</td>
<td>61.1</td>
<td>60.0</td>
<td>68.0</td>
<td>67.0</td>
<td>63.0</td>
<td>64.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerical/Sales</td>
<td>15.0</td>
<td>12.5</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>7.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skilled/Unskilled</td>
<td>18.0</td>
<td>15.5</td>
<td>17</td>
<td>15</td>
<td>16</td>
<td>14.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>5.9</td>
<td>12.0</td>
<td>5</td>
<td>7</td>
<td>8</td>
<td>13.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources:
- a. Ref. 7
- b. Ref. 9
- c. Ref. 10
- d. Ref. 11
- e. Ref. 12
- f. Ref. 13
origin showed essentially no change for physicians entering practice from 1925 to 1945.\(^{(6)}\)

- Lyden, studying 2,000 medical school entrants in 1946 and in 1950,\(^{(7)}\) found 61 percent came from professional, managerial or proprietorial families, though such families contributed only 18 percent of the male labor force.\(^{(8)}\)
- A 1956 study of medical school freshmen showed 60 percent shared these same class origins.\(^{(9)}\)
- More recent studies have shown 68 percent (1963), 67 percent (1967), 63 percent (1970) and 64 percent (1973-1974) of new enrollees came from these class origins,\(^{(10-13)}\) although these classes contributed only 23 percent of employed males reported in the 1970 Census.\(^{(8)}\)

Table 1 summarizes the class composition of medical school entrants based on occupations of families of origin. A similar picture emerges from studies using fathers’ educations as an indicator of class\(^{(10-15)}\). These studies are summarized in Table 2.

It is worth noting in this regard that of all applicants to US medical schools for the 1973-74 class those with physician fathers had the highest acceptance rate (42.4 percent) and those with skilled worker fathers the lowest (32.2 percent).\(^{(13)}\) The highest acceptance rates by mothers’ occupation were for physicians also (46 percent), while those whose mothers were nonphysician health professionals had a lower-than-average acceptance rate (34.4 percent).

### Race: Exclusion and Unequal Preparation

When Flexner surveyed medical schools in 1909-1910, there were seven Black medical schools in the country with a total enrollment of 732, or 3.3 percent of the 22,208 total US medical students.\(^{(16)}\). Although Flexner relates the subsequent closing of at least some of the five Black schools eventually shut down to lack of funds, evidence shows that corporate foundations support to medical education was available and was primarily channeled to leading private schools.

The number of Black enrollees at the two remaining Black schools, Howard and Meharry, actually declined in the post-Flexner period. Although these two schools had 480 total students in 1909, by 1938 there were only 305 Black enrollees in these colleges.\(^{(16)}\) Neither rising white enrollment in the two schools nor inadequate fiscal support, meager though it was, explain the drop in Black enrollment. Rather, the national reorganization of medical education—requiring a prior two years of college—significantly reduced the size of the potential Black applicant pool. Not until 1947 did enrollment in these two colleges climb above its 1909 level.\(^{(18)}\)

Meanwhile, the number of Black enrollees in predominately white schools remained...
Table 3  
Black Enrollment, US Medical Schools, 1909-1974

<table>
<thead>
<tr>
<th>Year</th>
<th>All US Medical Schools</th>
<th>Black Medical Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Freshmen Enrollees</td>
<td>Black Freshmen Enrollees</td>
</tr>
<tr>
<td>1909-10a</td>
<td>6320</td>
<td>(88)*</td>
</tr>
<tr>
<td>1938-39b</td>
<td>6869</td>
<td>(165)</td>
</tr>
<tr>
<td>1950-51b</td>
<td>7465</td>
<td>(190)</td>
</tr>
<tr>
<td>1955-56b</td>
<td>7946</td>
<td>(193)</td>
</tr>
<tr>
<td>1961-62b</td>
<td>8305</td>
<td>(178)</td>
</tr>
<tr>
<td>1963-64b</td>
<td>8596</td>
<td>155</td>
</tr>
<tr>
<td>1964-65c</td>
<td>8168</td>
<td>167</td>
</tr>
<tr>
<td>1965-66c</td>
<td>9408</td>
<td>217</td>
</tr>
<tr>
<td>1966-67c</td>
<td>9863</td>
<td>266</td>
</tr>
<tr>
<td>1967-68c</td>
<td>10422</td>
<td>440</td>
</tr>
<tr>
<td>1968-69d</td>
<td>11348</td>
<td>697</td>
</tr>
<tr>
<td>1970-71d</td>
<td>12361</td>
<td>882</td>
</tr>
<tr>
<td>1971-72d</td>
<td>13545</td>
<td>957</td>
</tr>
<tr>
<td>1972-73d</td>
<td>14124</td>
<td>1023</td>
</tr>
</tbody>
</table>

Sources:  
a. Ref. 16.  
b. Ref. 18.  
c. Ref. 19.  
d. Ref. 20.  
e. Ref. 21.  
* Numbers in parenthesis are estimates of freshmen enrollment based on the number of total enrollees, freshman through senior years.

Miniscule until the late 1960s. Not until 1968 were there more than a total of 100 Black enrollees in the nation’s medical schools excluding Howard and Meharry (Table 3). In 1948 a third of all medical schools were officially closed to Black enrollees. De facto ceilings on the number of Black enrollees in other schools were often maintained. As late as 1963 five medical schools were still officially closed to Blacks. (18)

Finally, in Flexner’s time, (16) annual fees at predominately white medical schools averaged $115; in the Black medical schools allowed to remain open, they averaged $96. But in those which were closed, annual fees averaged $54. Thus, closing the five Black schools denied Blacks the most accessible medical education.

This history helps explain the rapid rise in the number of Black physicians in the United States at the turn of the century, followed by an abrupt plateau immediately following the Flexnerian reforms. (22) There were 909 Black physicians practicing in the US in 1890, a number that increased more than threefold to 3,885 in 1920, but remained at or below that level through 1948, when it began to rise again, reaching 4,500 in 1966. Until the beginning of reforms spurred on by the demands of the 1960s, the number of new Black medical graduates was barely sufficient to make up for attrition through death and retirement.

In sum, the creation of relatively unattainable prerequisites and insufficient fiscal support for Black medical education created barriers probably as great as those posed by outright racial discrimination. These barriers extended beyond medical education and ultimately originated in a structure of unequal access to general educational resources for Black Americans.

**Sex: More Than Medical Policy**

According to Flexner’s report, (16) as well as the *Journal of the American Medical Association Annual Education Issues* tabu-
Table 4
Women Accepted to US Medical Schools,
1904-1973

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Acceptees</th>
<th>% Women</th>
</tr>
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<tbody>
<tr>
<td>1904a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1906</td>
<td></td>
<td>(3.5)*</td>
</tr>
<tr>
<td>1908</td>
<td></td>
<td>(3.7)</td>
</tr>
<tr>
<td>1910</td>
<td></td>
<td>(4.2)</td>
</tr>
<tr>
<td>1912</td>
<td></td>
<td>(3.2)</td>
</tr>
<tr>
<td>1914</td>
<td></td>
<td>(3.8)</td>
</tr>
<tr>
<td>1919b</td>
<td></td>
<td>(5.9)</td>
</tr>
<tr>
<td>1929</td>
<td>7,035</td>
<td>4.5</td>
</tr>
<tr>
<td>1935</td>
<td>6,900</td>
<td>5.5</td>
</tr>
<tr>
<td>1940</td>
<td>6,328</td>
<td>4.8</td>
</tr>
<tr>
<td>1950</td>
<td>7,254</td>
<td>5.3</td>
</tr>
<tr>
<td>1960</td>
<td>8,560</td>
<td>7.0</td>
</tr>
<tr>
<td>1965</td>
<td>9,012</td>
<td>8.9</td>
</tr>
<tr>
<td>1968</td>
<td>10,092</td>
<td>11.0</td>
</tr>
<tr>
<td>1969</td>
<td>10,547</td>
<td>9.6</td>
</tr>
<tr>
<td>1970</td>
<td>11,500</td>
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<tr>
<td>1971</td>
<td>12,335</td>
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<tr>
<td>1972</td>
<td>13,757</td>
<td>17.1</td>
</tr>
<tr>
<td>1973c</td>
<td>14,335</td>
<td>19.9</td>
</tr>
</tbody>
</table>

Sources:

* Numbers in parenthesis are estimates of freshmen enrollment based on number of total enrollees, freshman through senior years.

lated by Dube,(23) there is little evidence that the proportion of women medical enrollees significantly declined during or following the Flexnerian reforms.(Table 4) This tends to refute Ehrenreich and English,(24) who state that women disproportionately enrolled in eclectic, homeopathic and other non-allopathic schools as well as less prestigious allopathic schools and, when disproportionate numbers of these closed, medicine became a male profession. The data do suggest that at the turn of the century women were already drastically under-represented in the curricular programs referred to as medical schools.

While numerical data are not available, it is likely that women with interests and skills in medicine were less often enrolled in the decreasing number of formal medical schools, but more often active in lay midwifery and lay healing(25) as well as traditional nursing. As late as 1910 women lay midwives delivered half of all babies, and evidence indicates that doctors may have been less competent than midwives at this time.(24)

The decline of lay women healers was part of the decline in the Popular Health Movement, slowly strangled by the mounting strength of organized medicine (including women) in the latter part of the 19th century.(25) The Popular Health Movement, probably influenced by a wider movement against professional monopolies ("Jacksonian Democracy") in the early 19th century, was a strong attack by feminists and working-class people against the premature effort of allopathic practitioners to create a professional monopoly in the 1830s.(24) Women as lay persons and healers were part of the effort to deprofessionalize medical knowledge (in the era of calomel and bleeding); but they did not comprise a significant proportion of those who would later monopolize medical practice.

Flexner indicates that 56 of the medical schools he visited in 1909 were not open to women.(16) He gives no enrollment data for women by school, making it difficult to determine which schools were closed to women. But the evidence indicates that the annual number of women medical graduates fell from 1,129 in 1904 to 631 in 1914,(26) because of the general contraction of enrollment rather than any factors particular to women enrollees. (Table 4). In fact, the proportion of women enrollees remained about five percent until the 1960s.

Acceptance rates by sex are unavailable prior to 1929; following that, rates for women are remarkably close to those for men although, of course, many fewer women applied. (See Table 4.) So, at least since 1929, factors other than differential admissions accounted for the persistent under-representation of women. Though this began to improve with the emergence of the women's movement, the enrollment of women is still far below that of men, and causes extend to factors other than medical educational policy.

Medicine and medical education, for example, have never been structured to easily accommodate the differential domestic roles into which women are still channelled. Prior to the rise of the women's movement, both socialization into "girls" careers and the extreme difficulty of combining family responsibilities with a relatively rigid medical curriculum have discouraged all but a handful of would-be aspirants. For many women,
the need to individually shoulder the financial burden of child care makes a medical career economically prohibitive. As long as such factors persist, changes in medical admissions policy are unlikely to achieve a sexually balanced applicant pool.

**Structure of Discrimination**

A recent study by this author found a number of key factors operating to perpetuate the hierarchical nature of medical education.(13) The most important have to do with pre-selecting mechanisms in the broader American society, resulting in a pool of applicants that is primarily male, white and from upper-class families. The socializing and selecting effects of the general education system discussed at the beginning of this article are the most important. To them can be added the socializing effects of the home and other social units. Kohn’s study, for example, found that parents who work at jobs requiring obedience and passivity teach their children passivity and conformity, while parents with occupations requiring initiative and creativity teach their children assertiveness.(27) Sex and race stereotyping accumulate with myriad economic, social and cultural factors to main-
tain a pattern whereby inequities—racial, sexual and class—in both seeking of and applying for medical education are continually reproduced.

Medical school admissions policies themselves, however, also play a significant role. Two patterns are of special importance:

- MCATS: The use of a single, national admissions test—the MCAT (Medical College Admissions Test)—further skews the applicant pool. The test itself is designed to mirror the very differential learning opportunities and cultural biases of the larger society. Further, the MCAT has been largely discredited as a valid predictor of physician performance. If this is true for all score intervals, it would argue for abandoning the test altogether. If true only in the middle range of scores, these should be delineated and scores at the high extreme should no longer be given a special advantage.

- Preferences for Prestige Schools: A second medical school admissions policy responsible for reinforcing and exaggerating the already-biased sample of applicants is the direct preference for applicants from the nation's prestige colleges. Graduates of such colleges, of course, are generally from higher class origins, and more likely to be white and male, than the total graduates from all colleges.(13)

**Conclusion**

Although the role of medical school admissions policies in the relative exclusion of women, minority and working-class applicants is clear, the major culprit is the general educational system. This impression is strengthened by a brief review of unpublished work by this author on international comparisons. For example, in neither Britain nor Canada has the introduction of a national health system, or national health insurance, respectively, had any noticeable impact upon the class origins of physicians. Actually, physicians in Britain are less representative by class of the British population than are US physicians of the US population. This would support the hypothesis that the educational system rather than changes in the health system, per se, is the major determinant. In Britain, educational stratification by class is more marked and rigidly structured earlier in life than in the United States.

The only substantial changes in US medical schools admissions have been relatively slight gains by women and minorities during the 1960s, following popular agitation for increased access. Implications are clear concerning the question of class stratification in these same admissions. Again, international comparisons are illuminating: In China, for example, it was not until after the Cultural Revolution of the mid-1960s that entry criteria shifted away from academic indices and began to stress other applicant qualities. The proportion of medical enrollees in that country with peasant and working-class social origins subsequently shifted from about 10 percent to nearly 90 percent.(13)

The absence of any such cohesive movement to redress class discrimination in the US, meanwhile, (see Chart, p. 13 ) unfortunately suggests that the likeliest beneficiaries of altered admissions policies might be such unrepresentative groups as Black physicians' daughters—provided, of course, their families' incomes are in the top 10 percent and they have graduated magna cum laude from one of the nation's prestige colleges. Needless to say, such reforms will leave the majority of Black, female and working-class applicants just where they began: out in the cold.

Just as increased medical enrollment for women and Blacks came only with organized demands, further advances by these groups and any improvement for working-class youth will require similar efforts. And these efforts will need to address the entire educational system and the functions it serves in corporate America.

—Grace Ziem

(Grace Ziem is a faculty member at the Johns Hopkins School of Health Services. This article is adapted from a thesis at the Harvard School of Public Health, "Social and Educational Determinants of the Race, Sex and Social Class Origins of U.S. Physicians." (1977))

How does one characterize Carter-ism thus far? Is it marginal managerialism? Nixon-Fordism with a smile and without a grudge?

There has been scant evidence of the commanding corporate liberal or the populist rebel. Certainly no signs have flashed of the bold new programmer sensitive to local political mobilization and reorganization capacities. Rather, Carterism so far has meant national media-massaged assent for domestic hodgepodges and side-steps amidst martial drifts abroad.

"Cut and shoot," quipped one insider, characterizing a draft of the President's first major health address. "Cut" refers to the federal hospital cost containment program submitted by Carter as his major 1977 health bill; "shoot" is the expanded childhood immunization program, seen as a step in developing a comprehensive Child Health Assessment Program and possibly one piece in a piece-by-piece approach to national health insurance.

Hospital Cost Containment

Carter's "Hospital Cost Containment Act of 1977," a.k.a. H.R. 6575, attempts to restrict the nation's approximately 6,000 acute care institutions in two ways: (1) by imposing a nine percent ceiling on the increase of total in-patient revenues (calculated from a 1975-76 base period before hospitals could preemptively jack up costs) for the year beginning October 1, 1977, to decline gradually in subsequent years; and (2) by imposing a national dollar limit on capital expenditures—hospital construction and acquisition of new equipment—of about $2.5 billion. This represents roughly half of what was spent in 1976.

Two big social issues in the hospital cost bill are: (1) inclusion of a "pass through," exempting from control the added costs incurred by a hospital because of increases for low-wage, non-supervisory employees; and, (2) an attempt to control the impact of the bill on public institutions by curtailing such practices as patient dumping.

Implementation of Carter's "hard-hitting" hospital cost bill relies on a small federal "strike force" staff, negotiating from a questionable data base consisting of current hospital Medicare reports. The strategy seems guaranteed to continue the regressive shell-games of internal institutional accounting and marketing. There is also a major reliance on the "wet noodle" control mechanisms of state rate review and expenditure planning programs.

There are paradoxically progressive aspects to Carter's approach. For a starter, it isn't Ford's proposed freeze on Medicaid and cap on Medicare that would have victimized the poor and elderly while pushing the burden of ever-increasing hospital rates onto working- and middle-class payers. Carter's approach may even be a federal "first"—monopoly price control without total wage-zapping. Califano actually criticized hospital "monopoly big business" for "obesity," while saying inflationary medical care spending ignores other health and death determinants "directly related to our working conditions and our eating, drinking, smoking and exercise habits."

It would seem that Mr. Califano aspires to the title of Mr. Design Neglect.

While hospital-manager blaming and illness-victim blaming may be a shade better than victimizing the vulnerable, Carter's strategy leaves untouched such crucial issues as who a hospital admits, what it charges its patients, whether it serves the entire community or region most effectively, or whether its board and plans are representative and responsive. And finally the question looms: was this packaged formula meant to pass, let alone work? (Some have suggested it was only meant as mood music to mark time by prior to orchestrating a real federal policy.)

Joint House Health Subcommittee hearings on the bill in mid-May bring to the surface both the special interest groups' potential for sabotage and general political luke-
warmness shared even by strong public sector advocates. The administration's courtesy co-introducers, Representatives Daniel Rostenkowski and Paul Rogers, who chair the two key subcommittees, are hedging. "I am not yet convinced of the approach of H.R. 6575," said Rogers. "Why should we pass this questionable transitional package to start October 1," asked one staffer, "when the Secretary is obligated under this law, to come back five months later (March 1) to recommend a more permanent approach?"

What Ever Happened to NHI?
Notable by its absence in the President's health message draft, prepared by HEW Secretary Joseph Califano, was the subject of national health insurance, although the President did see fit to mention at least its postponement, pending the control of rising health care costs. Doubly indicative, perhaps, was the formation in early April of Califano's blue-ribbon Advisory Committee on National Health Insurance. Its formation was announced on a Saturday, guaranteeing minimum press and public exposure, and its members were drawn overwhelmingly from provider and corporate interests. Maybe the key to Califano's thinking on the subject was revealed in his call for recognition of the "strengths of our present health care system ... and the appropriate role of ... the private insurance industry in administration." It would seem that Mr. Califano aspires to the title of Mr. Design Neglect of Carter's across - the - board "containment" line on the economy and social programs.

The Fox and the Chickens
The new "czar" looming on the federal health horizon is Robert Derzon, Califano's appointment as chief of HEW's new Health Care Financing Administration (HCFA). HCFA merges Medicare, Medicaid and the cost and quality control functions associated with these programs and is considered to be the linchpin post of federal cost containment efforts as well as future federal health financing reorganization.

Derzon will report directly to Califano. Meanwhile, Dr. Sidney Wolfe, director of Ralph Nader's Health Research Group, urged cancellation of the Derzon appointment in a letter to Califano. Wolfe pointed out that, as director of hospitals and clinics for the University of California at San Francisco, Derzon was behind the "construction of a probably unnecessary $60-million expansion program" through "skillful circumvention of all legal and financial obstacles."

New Yorkers may remember Derzon as assistant to Joseph Terenzio, the last Commissioner of the New York City Department of Hospitals before the creation of the Health and Hospitals Corporation. Derzon went on, in fact, to become the first Acting President of the Corporation, a job he held long enough to "skillfully" negotiate a giveaway to the City of most of its fiscal autonomy for public hospitals, including vital Medicaid collection authority. (Terenzio, now with New York's United Hospital Fund, is a contender for the New York City-State "czar" post.)

Meanwhile, a progressive Congressman has challenged the collective wisdom of Washington's health planners by asserting that the problems they hope to solve are inherent in the privately-controlled, piece-work-oriented health institutions that dominate this country's health care industry. Ronald V. Dellums (D-CA), a leader of the Congressional Black Caucus, introduced a Health Service Act on May 4. More about this act—and the growing support for it—in our next column.

—Robb Burlage and Len Rodberg
Freedom's Just Another Word for Having Time to Choose

A long-simmering conflict between population control groups and those committed to patients' rights came to a head at the April 28, 1977, New York City Council meeting when the Council—by a surprisingly overwhelming margin—approved citywide sterilization guidelines.

The new law, sponsored and shepherded through the legislative process by Carter Burden, City Council Health Committee chairman, was patterned after female sterilization guidelines adopted 18 months earlier by the municipal hospital system. It extends protection to all patients—male and female—in all types of institutions—public, voluntary and proprietary. Provisions include:

- A 30-day wait between the signing of a consent form and the actual surgery, except in a few carefully defined circumstances;
- A prohibition against soliciting consent from a woman who is hospitalized for childbirth or abortion;
- An information session conducted by a counselor (not the doctor) to include information of the irreversibility of sterilization, alternative methods of birth control and the corresponding risks and benefits;
- The counseling session to be conducted in the patient's preferred language;
- A standardized consent form in the patient's own language (a copy to be kept by the patient);
- The right to revoke the consent at any time prior to surgery;
- Oral and written assurance to the patient that no other rights will be jeopardized for refusing to be sterilized;
- Possible fines of $1000 for violations.

"Some people, including oilmen and doctors, tend to feel that anything more than self-regulation is unAmerican."

—Carter Burden

The professional population controllers—led by the Association for Voluntary Sterilization and abetted by Planned Parenthood—oppose these stringent new safeguards because they fear a reduction in the number of people agreeing to surgery. Planned Parenthood, as well, has a historic opposition to "government meddling" in fertility control.

Throughout the hearings and debate on the bill, opponents constantly raised the specter of such waiting periods being applied to abortions. Alfred F. Moran, executive vice-president of Planned Parenthood of New York City, commented, "This bill is a profound infringement on the constitutional rights of women and men. Carter Burden is putting the City Council between you and your gynecologist."

The City's own Department of Health, an old-line civil service agency separated from the municipal hospitals system, also officially denounced the guidelines. Charged with monitoring hospital adherence to the Burden guidelines, the Health Department can be expected to be less than vigilant since they argued that the law "interferes with a doctor's flexibility."

Chiefs of Obstetrics and Gynecology expressed their opposition arguing that the guidelines interfere with the sacred doctor-patient relationship.

Virtually every women's group in New York City, however, backed the bill. For the first and probably the last time, the National Organization of Women (NOW) and Right to Life groups coalesced behind a single piece of legislation. NOW's letter of support was particularly important in convincing liberal City Council members to vote counter the advice of Planned Parenthood.

On behalf of the New York Chapter, Luba Zimmerman, NOW vice-president, wrote:

"We do not agree with the objection that informed people will be unduly limited in their access to sterilization. The 30-day delay operates positively in sterilization. It does not increase the risk as it would in abortion, nor does it take the decision away from the woman,
rather it gives her a chance to carefully consider her options after she has been given all the information she needs to make an informed decision. While we are wary of government interference in matters relating to fertility, certainly a distinction must be made between laws designed to insure freedom of choice and laws which restrict choices or limit access."

The legislation was designed to pre-empt abuse in over 50 private hospitals in the city where women in labor or in the midst of abortion are often approached by zealous house staff to sign sterilization consent forms. Although such practices are prohibited in municipal hospitals and supposedly prescribed by state and federal regulations protecting Medicaid recipients, they are still commonly tolerated. State and federal regulations impose only a 72-hour wait and are easily violated.

The Burden protections were extended to men considering vasectomies, although the circumstances, except for prison inmates and mental hospital patients, leave less room for abuse. Among the most outspoken opponents of sterilization guidelines was the chief of Ob-Gyn at Bellevue Hospital-NYU Medical Center, although the same institution insists on a 45-day wait for men requesting vasectomies.

The opposition had gotten a trial-run when they tried to block the earlier municipal hospital guidelines. When they failed, Ob-Gyn chiefs at the municipal hospitals went to court to stop implementation. Suing the City, State and federal governments, the chiefs charged that the guidelines violated the rights of women and the rights of doctors.

Representing a coalition of groups, Nancy Stearns of the Center for Constitutional Rights interceded on behalf of supporters of the municipal hospital guidelines in that suit. Faced with questions by Starns and other lawyers, five of the six chiefs stonewalled, causing the judge to dismiss their case with prejudice—meaning they cannot sue again. At this time the resolve of the one remaining plaintiff is in question.

The legal challenge isn’t dead, however. Having failed to block the HHC guidelines or the Burden legislation, Planned Parenthood is now threatening to bring court action as soon as the citywide legislation takes effect. Hopefully, this legal strategy will prove as impotent as their legislative one.

Passage of the Burden legislation is a clear victory for those who seek to insure informed consent. It not only establishes an important precedent in the struggle for patients’ rights, but demonstrates that a determined popular coalition can overcome the combined opposition of powerful entrenched interests.

CURE OR CULPRIT?

Repeated exposures to fluoroscopic chest X-rays—commonly used in therapy for pulmonary tuberculosis—is associated with increased risk of breast cancer in women.

A recent study by J.P. Boice of the Harvard School of Public Health, sponsored in part by the US Food and Drug Administration (FDA), found that women repeatedly exposed to fluoroscopic X-rays of the chest were 80 percent more likely to develop breast cancer than an unexposed control group. Although the control population differed from those exposed in several other respects, none of these differences were found to be related to increased breast cancer risk. (The study independently checked such breast cancer risk factors as age, family history of breast cancer, age at menarche, nulliparity, age at first pregnancy, and history of benign breast disease.)

—Barbara Caress
As the war over control of New York City’s municipal hospitals entered May, the main battle seemed clearly a confrontation between Mayor Abraham Beame—represented by a committee—and Governor Hugh Carey—represented by a czar. And perhaps at no time since the Bolsheviks got it together more than a half century ago were more hopes pinned on the committee to defeat the czar.

The czar is still officially only a proposed position: “Director and Coordinator of Health for New York City.” The proposal to create such a post emerged in late January, brainchild of two key Carey lieutenants: Dr. Kevin M. Cahill, “right” hand political advisor to the Governor; and Stephen Berger, executive director of the Emergency Financial Control Board.

The Mayor—at first reportedly reluctant—reached “conceptual agreement” with Carey after assurances that the post would be a joint appointment. (See “Vital Signs,” March/April, 1977 BULLETIN.) Carey subsequently tapped his man Cahill and Beame called on First Deputy Mayor John E. Zuccotti to begin screening candidates for the new job.

Whoever the new administrator may be, the job carries six titles—the greatest number of hats worn by any NY public official since Robert Moses. And Carey has made clear his intention that the health czar have “full authority” over the entire health care system in the city, especially the power to close hospitals and limit hospital expansion as well as authority to cut services.

The six titles intended for the czar include the positions of Health Services Administrator, Chairman of the Health and Hospitals Corporation (HHC), Chairman of the Interagency Health Council, Deputy New York State Commissioner of Health for New York City Affairs, Deputy Director of New York State Health Planning Council, and Chairman of the New York City Health Systems Agency Executive Committee.

Progress in creating the post has been delayed while ways are sought to augment its salary, since City officials are legally limited to salaries not exceeding that of the First Deputy Mayor ($51,524 a year), considered a paltry sum for such royalty and far lower than the average paid top voluntary hospital administrators. But as rumors continued to fly about the czar’s identity, it was the impact of the proposal that seemed to preoccupy most observers.

Outgoing HHC President John L.S. (“Mike”) Holloman was among those who saw the new post as chiefly designed to close beds and services in the municipal system.

“I think the likelihood the voluntaries will be favored is apparent in the proposal,” Holloman noted. “He will have six positions but all of them are really part of the public system. He will have all the power to cut where cuts have already been made; but I look forward with some anticipation to see him up against the power of Columbia or Montefiore or Mt. Sinai.”

City officials have quietly admitted for some time that any regionalization plan will certainly involve shrinkage in the municipals. Although there is less certainty about the voluntary sector, cuts there seem probable as well. What has changed since January is the City’s response: Mayor Beame began to act in late April, in fact, as though he had been elected to replace Holloman. He chose the April 26 HHC board meeting to launch his counterattack on the czar plan.

The Committee

Newspaper reports prior to the meeting promised a new effort by Beame to control HHC operations. The Mayor’s plan—transmitted as a resolution introduced at the meeting by Deputy Mayor Lucille Rose, Beame’s most recent HHC board appointee—called for creating an eight-member committee to assume the pow-
ers of the HHC presidency following Holloman’s ouster (see “New York,” March/April, 1977, BULLETIN).

One clear intent in creating the committee is to place a Mayoral roadblock in the path of the health czar and any attempts to slash municipal services without Beame’s approval.

Most of the appointees are Beame loyalists. Donald E. Kummerfeld, New York City Budget Director, was named in the resolution as committee chairman.

The resolution also proposed two new HHC executive vice presidents: Joseph Lynaugh, executive director of the Health Systems Agency; and Le Roy Carmichael, executive director at Queens General (municipal) Hospital. The Lynaugh and Carmichael appointments were deferred, however, so the new committee could proceed with “proper screening” of candidates.

Although Carmichael’s appointment may prove sticky (he is reported under investigation by the Queens DA’s office for alleged improprieties during his tenure at Queens General), Lynaugh’s appointment seems certain. And it was from an “Agenda for Action” prepared by Lynaugh and Kummerfeld that the city’s battle plan could be seen taking shape.

Calling for a three-month transitional shake-up in HHC management, the Lynaugh-Kummerfeld plan contains the following notable features:

- Intensive public relations emphasizing that a “new day has dawned for the municipals, both in internal management and their role in the whole system;”
- Formation of a “negotiating team” to review and evaluate the staffing affiliations contracts between municipals and the major voluntary hospitals;
- Creation of new cooperative agreements between the municipals and community physicians—including the “better Medicaid mills,” prepaid group practice plans such as HIP, and various other physician groups;
- Formation by the HHC of free-standing prepaid group practices connected with the municipals and expansion of existing city-run outpatient centers, having them remain open during night and weekend hours and insuring Medicaid coverage for their users.

Although at first blush the Lynaugh-Kummerfeld plan may seem hopeful (one observer suggested they may have read the March/April, 1976, BULLETIN), champions of expanded primary and outpatient care will find nothing to cheer about as the particulars unfold. For one thing, many of the proposals represent tired formulas that have simply been dusted off again. There is no reason to believe they will work better than they have over the past seven years.

More seriously, however, the Beame administration’s concept of “ambulatory services” was made clear as recently as last November in a call for “maximizing hospital admissions” in order to increase federal and state Medicaid reimbursements. The goal, in other words, is case-finding, not care. The former sees outpatient departments and emergency rooms as recruiting offices—means whereby inpatient admissions (which generate greater reimbursement revenues) can be “pumped up” to cover the municipals’ sagging occupancy rates.

What case-finding means for recipients is made clear if one simply notes that it has been the major strategy of the voluntary hospitals’ outpatient and emergency policies for at least a decade. There, the rule of thumb is, “If you can be admitted for it and it’s reimbursable, we treat it; if not, we don’t.”

For those seeking health care—particularly the city’s working and poor populations—the war between the city and state for control of the municipals promises to become ever more a choice between the devil and the deep.

—Michael Clark
A Little Sweetner for the Delaney Amendment

The present furor over banning saccharin is not likely to have a lasting impact either on this nation's collective sweet tooth or its waistline, given the public's craving for low calorie sweets, industry's present massive research effort and the government's almost desperate desire to approve at least one commercial sugar substitute. Rather, the most likely long-term impact of the controversy will be a national policy precedent: for the first time, the US food industry will be legally allowed to add suspected human cancer agents to commercial food products.

The Delaney Amendment

Present national policy on food additives is embodied in the so-called Delaney Amendment to the Food, Drug and Cosmetic Act, passed by Congress in 1958. It says, simply: "No additive shall be deemed to be safe if it is found to induce cancer when ingested by man or animals, or if it is found, after tests which are appropriate for the evaluation of the safety of food additives, to induce cancer in man or animal..." (21 US Code (C)(3))

The Amendment has a limited range of application:
- It applies only to cancer.
- The need for special protection from cancers results from their peculiar risks: the long time period, often decades, between exposure and appearance of clinical symptoms and the progressive advance of the disease even when the exposure has long since ceased.

Animal Tests: The Key Issue

The cutting edge of the Delaney Amendment is the importance it attaches to animal tests. Once any animal species is shown to develop cancer from ingesting a food additive, no matter what amount, the Delaney Amendment requires that the US Food and Drug Administration (FDA) rule it unsafe for humans.

Remarkably, the Delaney Amendment has been invoked on the basis of animal tests only four times since 1958, for: saffrole (root beer flavoring), oil of calamus (vermouth flavoring), cyclamates, and now saccharin. Each time the food industry and its medical allies have argued strenuously to Congress and the public on two scientific issues: animal studies are not directly applicable to humans and, even if they were, the amounts of additives fed the animals are unreasonably large.

- The attack on animal studies ("People aren't rats"). Despite industry's attempt to brush aside animal evidence, all known human carcinogens, with the possible exception of arsenic, cause cancer in animals. Also many human carcinogens were first identified through animal studies; recent examples include the pregnancy drug DES and polyvinyl chloride (see BULLETIN, No. 71, July/August, 1976).
- The inability to link all chemicals causing cancer in animals directly to human cancers stems largely from difficulties in linking the various types of human cancer to thousands of possible carcinogens in a population with a complex pattern of exposures. But the similarity of life processes in test animals and humans and evidence of links when human carcinogenicity has been established strongly suggest that food additives which cause cancer in animals also cause cancer in humans. (For an excellent review of the scientific basis for the Delaney Amendment, see Dr. Samuel Epstein, "The Political and Economic Basis of Cancer," Technology Review, Vol. 78, No. 8 (1976) pp. 1-7.; also see Dr. Barry Commoner, Keynote Address, Conference on Environmental Cancer, Washington: Mar. 21-22, 1977, soon to be available from The Urban Environment Conference, 1714 Massachusetts Ave., Washington, DC 20036.)
- The attack on high animal doses ("People would have to drink 800 diet sodas a day for a lifetime to get that great a dose of saccharin"). Test animals are commonly fed large doses of suspected toxic additives to improve chances of detecting cancer incidence in relatively small animal test populations of, for example, 50-100 rats. Such procedures are common-
ly used in toxicological studies. Industry objections are easily refuted (see, for example, Epstein, op cit.).

**The Saccharin Controversy**

The history of government concern about saccharin can be traced as far back as 1953, when FDA scientists expressed fears about the artificial sweetener. Evidence of its dangers grew until, in 1972, it was removed from FDA’s Generally Recognized As Safe (GRAS) list and placed in an "interim" status pending further tests. Finally, a carefully designed series of Canadian experiments, funded in part by FDA, nailed the lid on the saccharin coffin.

Now FDA is trying to sidestep the Delaney strictures by classifying saccharin as a non-prescription drug. But as a drug, saccharin must satisfy the tests of being both "safe" and "effective." When the same strategy was tried several years ago for cyclamates, the chemical failed both these tests and was eventually banned. Quite possibly a similar fate awaits saccharin. (This sordid tale is told in Chapter 9 of *Eating May Be Hazardous to Your Health*, by an FDA scientist, Dr. Jacqueline Verrett, and Jean Carper. (1974))

**Cost-Benefit Analysis**

The present controversy over saccharin represents a critical moment in the life of the Delaney Amendment. US Rep. James Martin (R-NC) has gathered over 150 Congressional co-sponsors for a bill to overturn the saccharin ban and weaken the Amendment. There is some question, however, whether the bill can pass legislative hurdles in both the House and Senate and be signed by the President.

A more sophisticated attack against the Delaney Amendment, one more likely to succeed in the long run, was espoused in a recent *New York Times* editorial. (March 11, 1977) Why, the editorial argues, make absolute, inflexible rules that substances be banned? Why not weigh benefits against risks, as one does for a drug? This position has the ring of good sense, since in the real world all foods and drugs have their benefits and risks, as all courses of action have their advantages and drawbacks.

This argument, reasonable in general, is flawed when applied to food additives. As noted by Barry Commoner in the speech cited above:

"What is the benefit of a carcinogenic dye that makes hot dogs red? If the social purpose of hot dogs is to nourish people, then—leaving aside the argument about what contribution the hot dog itself makes to human nutrition—the dye has no value at all. If "market research" shows that people are more likely to buy red-dyed hot dogs in preference to a competitive brand which is not dyed, then the only social value of the dye is to enable the first company to sell more hot dogs."

To argue, as the *New York Times* and others have, that the Delaney Amendment should be modified to allow a cost-benefit analysis is really to argue that the cost-benefit presently embodied in the Delaney Amendment is inadequate.

In the case of saccharin this argument would require balancing the convenience of artificial sweeteners to millions of weight watchers and its medical value to diabetics, in some unknown manner, against the cost of an unknown number of human deaths from cancer. Such "analysis" is difficult, if not impossible. In effect it means that we should consider allowing some suspect carcinogens to be used as food additives, rather than ban all suspect carcinogens as food additives as at present.

The more sensible course of action for saccharin would be to ban it under the Delaney Amendment and allow diabetics to purchase it by prescription, since they clearly represent a special class.

—David Kotelchuck
Medical Education
(Continued from page 14)

15. US Bureau of Census, Detailed Characteristics, 1970 Census of Population, PC(1)-1D.

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The written history of medical practice has taken many forms, from personal biographies to the history of discoveries, medical societies, theoretical discourses, and therapeutics. Michel Foucault, in *The Birth of the Clinic*, has not written a history of these subjects nor has he tried to find the essential meaning of the various thematic developments in medicine which occurred at the turn of the 19th Century in France. What he has attempted is an analysis of medical experience in France, from 1776 to 1816, which saw a fundamental change in the conception of disease and in the experience of the practitioner.

Foucault simultaneously addresses two questions in this book. What constitutes a fundamental change in medical practice? And how do such changes occur?

What Constitutes Change?

Changes in medical technology and practice occur at various rates throughout recorded history. From the Renaissance to the 19th Century a great many "discoveries" were made and new conceptualizations of the body introduced, e.g. Harvey's treatise on the circulation of blood in 1628, Leeuwenhoek's discovery of the microscope around the middle of the century, the publication of the works of the great anatomist Morgagni in 1760, or the introduction of the concept of tissue by Bichat at the turn of the 19th Century.

In the 19th and 20th Centuries, the speed of technical and scientific development quickens to almost a blinding pace. One sees a revived interest in autopsy, the rise of the teaching hospital, the germ theory of disease, and a host of mechanical and technological discoveries.

How are these changes to be viewed? Do they constitute a continuous lineal history, each discovery building upon the preceding ones? Foucault answers this question in the negative. He recounts a history of discoveries which were forgotten, new techniques that went unused, and new medical institutions which codified old conceptions of disease. Morgagni, for example, was forgotten for nearly half a century; Bichat made great advances in anatomo-clinical thought even though he rejected the use of the microscope, and the teaching hospital was first organized according to a botanical model of disease.

Foucault rejects the notion that major historical changes are born of the accumulated weight of scientific innovation or the creativity of genius. He does see, however, that a basic unity may exist among a series of different events and practices (such as the teaching hospital, the germ theory of disease, prognosis, and biology), and that over time these different events and practices undergo mutations which change the character of their unity.

The "Gaze"

This unity, the fundamental order of things, or as it is referred to in *The Birth of the Clinic* the "gaze," is the regularity of the world which gives
things their relationship to one another. The gaze is neither medical theory nor therapeutics, but might be viewed as the structure or medium against which both are related to each other. In Classical thought, a period covering most of the 17th and 18th Centuries, for example, everything from medical therapies to the institutional setting which produced knowledge about disease was bound by a common relation to "Natural History." Nature provided the rules for medical practitioners to view the empirical field of diseases. Through observation, the doctor found a continuous, ordered world of living beings, including diseases. The doctor's job was to correctly identify the disease afflicting the patient, that is to name it, and to drive it from the body.

The promise or limitations of medical discoveries in this period were given by their relation to nature and to those institutions and sites of authority which reproduced and enforced nature as the unifying order in knowledge that was already given in nature. This conception of medical practice is called nosology. In sum, the theories and therapeutics of nosology were invested with a gaze structured around the concept of Natural History.

From our standpoint, we can see blind spots in nosological discourse: It could localize disease only with great difficulty, because nature was independent of the body. It called for no microscopic investigation to advance knowledge of disease, because the disease was best observed through its manifestations as symptoms. But, our ability to make these observations is based on the wholly different relations among the roles of doctors, patients, hospitals, chemistry, biology, etc.: that characterize contemporary medicine. These relations are characterized by the clinical gaze. It is this gaze that forms the structural background for the biological sciences and the practice of medicine as we know them.

The clinical gaze represented a fundamental break with the nosological way of encountering the world. No longer does the medical practitioner look for a natural order of species of disease. Instead he is caught up in the organismic functioning of life. Morgagni's work in pathological anatomy suddenly has great relevancy; autopsy is related to an investigation of the disease process; and the hospital gains a central role in therapy and teaching. All these elements existed simultaneously and in a developed state prior to the 19th Century, the period when clinical medicine was concretized. What is new is that they are related to each other in a different manner. The elements conform to different rules.

Foucault chooses as his level of analysis of change one that lies deep beneath the experience of everyday life. This level inquires into basic unities or relationships among different events and practices, and the most fundamental transition Foucault addresses is the varying forms of medical discourse as they are structured by new appreciations of what is possible and unthinkable. In The Birth of the Clinic, Foucault attempts to chart this transition along the path of the medical gaze.

Some Problems

To say that Foucault's book is difficult is certainly an understatement. The difficulty is due to more than stylistic problems—although the prosaic style, confusion of tenses, and uncertainty of antecedents makes for rough going. The major difficulty is that the gaze is a complicated concept and, in The Birth of the Clinic, somewhat ambiguous in its usage. At times, it seems to refer to the perception of an individual doctor or the formalized knowledge of medical science. At still other times, and most often, it refers to the underlying regularity, the rules of formation of an apparently dispersed practice which form a unity as the medical gaze. In two books (2) which follow he leaves no doubt that it is the latter meaning he wishes to give to the gaze. In fact, in The Archaeology of Knowledge, he explicitly criticizes himself for the ambiguity. (3)

Unless the reader has an appreciation for the fundamental character of the gaze as the regularity underlying both theory and therapeutics, there is a danger of reading Foucault's discussion of medical experience in terms of a history of
The clinical gaze represented a fundamental break with the nosological way of encountering the world. Thought was brought into disarray and were institutionalized with modern positive medicine.

Another reason the book is so difficult to read has to do with the complicated nature of the historical process itself. Foucault sees no clearly intentional process which is responsible for the change from Classical thought, represented by a study of diseases of essential orders, to the new positivist practices of the anatomo-clinical conception of disease. How, then, does Foucault explain the change from one gaze characterized by one set of rules to another?

Political Breakdown and Positive Medicine

From the Renaissance to the French Revolution, medical experience had been institutionalized in the hierarchical, closed Gothic university and guild system. This institution was dedicated to nosological pursuits: the ordering of natural essences of disease into a botanical garden of species. Nosology had within it a conception of two loci of disease: in the body and in populations (epidemics).

In the management of epidemics the French State discovered a connection between health and social conditions. To the end of generalizing this knowledge, the state created the Societe Royale de Medicine in 1776, which immediately entered into conflict with the Gothic university, a conflict the State institution was to win.

The founding of the Societe Royale and the fervor surrounding the French Revolution presented the physician with a new role—a political one. The doctor’s first task was to be political, “...the struggle against disease must begin with a war against bad government. Man will be totally and definitively cured only if he is first liberated.”(4) In its link to the destinies of states, medicine was no longer “confined to a body of techniques for curing ills and the knowledge that they require; it will embrace a knowledge of healthy man, that is, a study of non-sick man and a definition of the model man.”(5) Medicine, for the first time, acquired a positive role in defining a norm for social interaction.

The economic and political ideologies of the French Revolution had other effects on medical practice. The general health of the population increasingly became one of the economic norms required by an industrializing society; yet concepts of economic assistance argued against placing large amounts of capital in hospitals. Under nosology, hospitals were seen as therapeutically invalid and the natural place to treat disease was believed to be in the family. To the physiocrats it made more sense to pay assistance directly to the sick person in the family, because the whole family would derive benefits from the assistance. This also avoided tying up a large amount of capital in hospitals. Within this conception of assistance, the doctor became an administrator to a certain segment of the poor.

Doctors in most societies are accorded high status and have the authority to prescribe therapies, treat illness, and generally attend to the medical needs of a given community. But this status underwent a qualitative change when the doctor was made responsible for administering to the public and was given the authority to define for the state what constituted being poor, sick, insane, etc. This gave the doctor an even more positive significance and, as a result, administration was medicalized.

All these processes took place within the framework of nosology. Under the nosological conception of disease, the hospital had no place in treating diseases. The doctor, in the role of administrator of the population’s health, however, found it necessary to oversee the functioning of the hospital. Thus seeds of an independent base outside of the academy were being sown prior to completion of the revolution.

The political ideology of the French Revolution reviled social privilege and privileged knowledge. The ideal society was one of a “... set of equivalent items capable of maintaining constant relations with their
entirety, a space of free communication in which the relationship of the parts to the whole was always transposable and reversible. (6) Because they represented impediments to the realization of the perfect society, universities were closed and the guild system was smashed. This left the teaching and practice of medicine in great disarray. In a complex process, medical experience met objections to privilege by creating a "liberated" space or "free field" for the teaching of medicine. This free field was constituted in the hospital at the patient's bedside where first-hand experience and perception were given as the authority for teaching and knowing.

The first practitioners to experience the validity of their own gaze in this liberated space were, nevertheless, still looking for diseases as unchanging truths—a characteristic quality of nosology. The reformers of the French Revolution thus unified this new experience around a reorganization of already-given elements of knowledge. By holding onto the ideological conceptions of nosology, the reformers themselves held back the development of medicine set against the unifying aspect of the gaze. Thus Foucault sees in Bichat's works an ambiguous mix of pathological, nosological, and clinical themes; yet with Bichat the clinical gaze makes a major advance in situating disease in the pathological processes of the body.

Calling into play thematic developments to satisfy the requirements of the gaze becomes so confused at times that Broussais, the clinician who in 1816 formalized a medicine of pathological reactions within the anatomo-clinical gaze, returned to the old practices of bleeding and using leeches.

At this stage in the breakdown of nosology, perhaps more than at any other, the character of the gaze comes through. It can be referred to, but not articulated. It constitutes a mutual point of recognition for doctors, but it is not part of medical knowledge; i.e., it is neither a subjective perception nor a part of formal knowledge. Rather it is a practice or a positivity which will structure new relationships between theories and therapeutics.

It remained for a philosophical tradition, concerned with language and the linguistic character of the datum, to give a voice to the gaze. Rather than trying to summarize the whole of the book—a difficult, if not impossible, task—it would be enough to point out how Foucault constructs the noninten-

"What one did not know was how to express in words what one knew to be given to the gaze. The Visible was neither Dicible nor Discible.” (7)
In 18th Century nosology, diseases had a dual status. They were thought to have an independent existence in nature, in a natural order of species. At the same time, a disease invading the body could result in the destruction of life and thus be considered counter-nature. Death, however, represented the end of life and was thus unalterably opposed to life and nature. Death was the deep, dark, invisible divide which marked the end of temporal knowledge. Theories of disease and therapeutics were organized around the experience of the life/death/disease relation according to this structure: life loses visibility in death; disease is both nature and counter-nature. Thus nothing could be learned about disease from the cadaver and the best treatment for a disease was to drive it from the body.

The anatomo-clinical gaze, after many permutations, finally found its equilibrium by first centering life and disease around death and then localizing disease in the physiology of the organism. Disease "... is no longer an event or a nature imported from the outside; it is life undergoing modification in an inflected functioning... . Disease is a deviation within
life... [The idea of a disease attacking life must be replaced by the denser notion of pathological life. Morbid phenomena are to be understood on the basis of the same text of life, and not as a nosological essence...](8) Disease was conceived as the body's tissues dying little by little. Disease was centered around the concept of pathology which in turn found its progress in the life process and its locus in death.

Death, then, became the source of disease—that possibility in life which "exhausts it, diverts it, and finally makes it disappear." Death no longer concealed and hid the life process as in nosology, but rather exposed the very truth of life. Foucault's presentation of the history of clinical dissection shows how dissections were carried out for centuries just to learn anatomy. It was not until the 1800s that the dissection of bodies as a regular practice was linked to finding the pathological processes which resulted in death.

The utility of this reordering of the life/death/disease relation was linked to the positive power that the "gaze" attained in its new arrangement. Through the process of degeneration and the lesion, the tissues and organs of the body exposed the pathology of life to the perceiving eye. Degeneration, the exponent of death, lay at the very principle of life and disease. "[P]erception could grasp life and disease in a single unity only insofar as it invested death in its own gaze."(9)

Anatomo-clinical medicine demystified death and made what once marked the end of investigation (death, or the invisible), the principle of investigation (the invisible made visible). The practice, based on the anatomo-clinical gaze, was to discover and probe the "visible invisible." Techniques and methods were more or less useful in that they could extend the senses of the observer to read the signs of visible degenerative processes of lesional occurrences. Possible knowledge was at once extended to a whole new realm and ultimately limited to conceptualizing disease as visible, individualized pathology.

Under the anatomo-clinical gaze, the search for disease was carried on in the positive space of individual functioning, because death centered disease in a space that coincided with that of the organism. Foucault comments:

"[Disease] follows [the organism's] lines and dissects it; [disease] is organized in accordance with its general geometry; [disease] is also inflected towards its singularities. From the moment death was introduced into a technical and conceptual organon, disease was able to be both spatialized and individualized. Space and individuals, two associated structures deriving necessarily from a death-bearing perception."(10)

The break with nosology was not completed with the pathological anatomy like Bichat, Corvisart, or Laennec. As the anatomists pursued the visible alterations of pathological occurrences into ever finer detail, they encountered the problems of the cause and the localization of disease. Because the primary principle for the pathological anatomists was visibility, unexplainable events were susceptible to nosological interpretations. This left the door open for the possibility of constructing a nosographical type of classification before entering the domain of pathological anatomy.

It was left to Broussais, a man who had traversed many different medical experiences, to exorcise nosology once and for all from the anatomo-clinical gaze. He did this by making the lesion, the localization of disease, primary. Rather than visibility being the mark of a disease, Foucault reports that with Broussais "it is because disease, in its nature, is local that it is, in a secondary way, visible."(11) By locating alterations or pathological processes in the organismic place where they develop, Broussais knocked down "the nosological wall maintained by Bichat between the vital or functional disorder and the organic alteration... Disease exists in space before it exists for sight."(12) Thus, Broussais introduced into the anatomo-clinical gaze the physiology of the morbid phenomenon. From pathological physiology follows a conception of organic dysfunction and, hence, functionality.

Broussais also broached the problem of the cause of disease. The localization of the disease is the "link point of the irritating cause, a point that is determined by both the irritability of the tissue and the irritating
power of the agent.” (13) Diseases of essential orders are finally replaced by a conception of pathological reactions. The pathological phenomenon “is caught up in an organic web in which the structures are spatial, the determinations causal, the phenomena anatomical and physiological. Disease is now no more than a certain complex movement of tissues in reaction to an irritating cause...” (14)

Broussais’ equilibration of medical experience was argued in the terms of older thematic developments. Foucault points out that the conception of sympathy, a concept used by Broussais, had already been justly criticized by pathological anatomy, and other conceptions and practices like irritation and bleeding were the point of much controversy. It was the integration of these older elements, however, which gave the clinical gaze its structure for years to come.

The Gaze and Class Struggle

A criticism can be made of Foucault for not always being clear when he is tracing thematic developments and those of the clinical gaze. He can also be criticized for leaving underdeveloped in the book, the relation to the clinical gaze of the institutional organization of the hospital, the practice of the doctor, and the development of medical technique. The impact of this criticism fades, however, in light of the difficulty of the task, and the fact that the history of the gaze must be analyzed, in part, in terms of theories and therapies.

Again, the important point to emphasize is that the history of the gaze has a path of autonomous development which is not dependent solely on the theoretical projects of man. The clinical gaze is neither a weltanschauung nor a paradigm. It relates such disparate elements as conceptions of disease, conceptions about life and death, ethical choices, therapeutic decisions, institutional regulation and teaching models. The destruction of nosology and formulation of the clinical gaze is a process of historical struggle involving all these material practices. In France, this pro-

The history of the gaze has a path of autonomous development which is not dependent solely on the theoretical projects of man.

“Can pain be a spectacle? Not only can it be, but it must be, by virtue of a subtle right that resides in the fact that no one is alone, the poor man less so than others, since he can obtain assistance only through the mediation of the rich. Since disease can be cured only if others intervene with their knowledge, their resources, their pity, since a patient can be cured only in society, it is just that the illnesses of some should be transformed into the experience of others; and that pain should be enabled to manifest itself... And in accordance with a structure of reciprocity, there emerges for the rich man the utility of offering help to the hospitalized poor: by paying for them to be treated, he is by the same token, making possible a greater knowledge of the illnesses with which he himself may be affected; what is benevolence towards the poor is transformed into knowledge that is applicable to the rich...”

“These, then, were the terms of the contract by which rich and poor participated in the organization of clinical experience. In a regime of economic freedom, the hospital had found a way of interesting the rich; the clinic constitutes the progressive reversal of the other contractual part; it is the interest paid by the poor on the capital that the rich have consented to invest in the hospital; an interest that must be understood in its heavy surcharge, since it is a compensation that is of the order of objective interest for science and of vital interest for the rich. The hospital became viable for private initiative from the moment that sickness, which had come to seek a cure, was turned into a spectacle. Helping ended up by paying, thanks to the virtues of
The usefulness of Foucault’s concept of the gaze is of more than esoteric interest. I would like to attempt to outline how Foucault’s ideas might apply to today’s “health crisis.”

Foucault says that the structure of the anatomo-clinical gaze constitutes the historical and concrete a priori of the modern medical gaze. Clearly methods and therapies have changed radically in the past 150 years; but many elements of the modern medical structure forged in the second decade of the 19th Century in France continued to be recognizable until a few years ago. The centrality of the teaching hospital to the identification and treatment of disease, the integration of chemistry, biology, and statistical information into the hospital network, and the authority of the doctor and his main role of diagnosing the patient’s disease and prescribing therapies, are examples of such elements that have, until recently, gone unchanged.

In fact, the requirements of the anatomo-clinical gaze continue to organize the main body of positivistic medicine’s response to the numerous crises it currently confronts. The challenge offered by finding a cure for heart disease and cancer is being met, for example, by searching ever more deeply into the organism’s physiology and the pathological processes associated with disease. In fact, even the reform movements that criticize the curative approach and stress social determinants of disease or family therapy are bound up with the anatomo-clinical gaze but in this case in a very different way.

As critics of positivistic medicine, the reformers help to unravel the structure of the gaze. This process takes the form of “discovering” theories and practices which seem to be new, but in fact are a recapitulation of theoretical developments present at the birth of the clinic. Today’s emphasis on family therapy harks to the liberal ideology of the French Revolution and nosological practices which saw the family as natural locus for treating disease. The critique of medical specialization and the modern emphasis on Transcendental Meditation or other relaxation therapies (which rely on whole body conceptions of disease and the importance of communication) were prefigured by a clinical method of the late 18th and early 19th Centuries (which relied on the notions of sympathy and linguistic ordering to indicate the disease); and the necessary logic needed for recognizing the social determinants of disease had been in place since Broussais.

This process of unraveling the modern medical gaze has two implications.

First, it brings to light the historical condition which resulted in the formation of the clinical gaze and have constituted for the last 150 years “the dark, but firm web of experience.”

Second, new ideas and criticisms—seen in terms of this unraveling process—locate apparently new ideas within the historical limits of positivistic medicine. Rendered in this way, such reforms as are outlined above are seen, not as part of an antagonistic movement of ideas or events, nor as necessarily bursting asunder positivistic medicine. Rather, they represent the historical limits of the experience of positive medicine. For, in reality, none of the reforms mentioned escape the practice of conceptualizing disease in terms of individual pathology and physiology, and none of the contemporary movements necessarily challenge the teaching hospital as the integrator of the health care system.

The impetus for change—for a new conception of disease—will have to move beyond rooting disease in individual pathology. The forces for such a change are on the horizon, and can be grasped precisely because the gaze is both unraveling and shifting: First, the breakdown in the organization of health care and the attendant economic problem of generalizing high unit cost hospital care to the population has speeded the unraveling process. This breakdown presents critical problems for curative medicine and has already weakened the political and educational forces responsible for reproducing positivistic medicine.

Second, the development over the past century of historical-materialist thought, which teaches both in theory and
practice the historical relativity of the concept of the bourgeois individual, has already shifted the gaze away from the individual as a central concept. Such a body of knowledge and experience presents an ideological wedge challenging the very nature of conceptualizing disease as an elemental process of individual pathology and physiology.

Third, the development of mass struggles against environmental pollutants and of workers' struggles against occupational diseases increasingly force curative medicine into retreat and into admitting its limitations.

Fourth, the doctor's traditional authority is being eclipsed from two directions. On the one hand, increasing technology and its resultant information flow are generating hundreds of new subsidiary professions whose responsibility is to process and interpret information about the patient—a role previously occupied by the doctor. Foucault points out that the doctor can make use of this information and the new techniques of analysis, but these innovations ultimately modify his position as an observing subject in relation to the patient. Also, the doctor's sole control of hospital administration has been largely supplanted by the professional hospital administrator. Both developments are important elements in the decomposition of the doctor's medical authority.

Finally, a shift within the central structure of the medical gaze itself has already occurred. Individual organic dysfunction no longer is the only criterion for death. Clinical death—no longer a simple function of vital signs—now includes "brain death" as its central notion. This allows for the possibility of declaring a person dead even while the body still shows signs of organic functioning. Death—that great teacher of the anatomo-clinical gaze and central point from which all truth about disease once flowed—has been toppled from its promontory. The absence of the ability to communicate, as indicated by signs of brain activity and response to stimuli, has replaced pathological events as the criteria for conceptualizing death.

Death, once thought of and experienced as a disease within life and limited by the positivity of individual pathology, is now given a social referent—communication—for its determination.

For the anatomo-clinical gaze, death was suspended in life; now that gaze is confronted with an "impossible possibility"—life suspended within death.

Phrased in a different way, "brain death" can be seen as a solution to one very sticky contemporary problem. Advancing technology in life-sustaining machinery has provided medicine with the capability—albeit enormously costly—of keeping the body functioning. But when the technical rationality of the machine began to substitute for the organic functionality of the individual, a whole range of social problems came to the fore. Consideration of individual life process began to be transformed into questions of technical possibility and social investment. How many respirators, dialysis machines, etc. can we afford? The definition of brain death as the new criterion for "pulling the plug" and thus—among other effects—reducing the overall economic cost of health care, results in more fundamental problems for the physician.

One of the great conflicts in today's medicine stems from the antagonism between the death-bearing perception gaining validity in the positivity of individual pathology and that same perception having to seek validity in the effacement of the individual by machines and social processes. For the anatomo-clinical gaze, death was suspended in life; now that gaze is confronted with an "impossible" possibility: life suspended within death. Does this not describe the condition for "brain dead" people hooked up to "life sustaining" machines?

The characteristic, pragmatic response by clinicians is to deal with this ambiguity by passing the buck to the medical ethicists. By placing the problem of life and death in their hands, the clinician hopes to displace the problem of defining death from the clinical realm into that of the metaphysical. In this way, problems posed by the dilemma never need be faced in clinical experience. (Foucault points out, however, that the clinical gaze involves ethical choices as well as therapeutics. Therefore, the dilemma of the clinical gaze cannot be displaced, just emphasized in a different site.)
As this antagonism continues to develop, along with the decomposition of medical authority, it threatens to destroy positivistic medicine's anchor in the hospital and in individual pathology and physiology, and to open up a new, discursive landscape for the conceptualization and treatment of disease. Such a landscape might well have as its terrain the entire complex of social interactions and social relations in which contemporary humanity is engaged.

—Steven London

1. The extent to which “Natural History” formed the basis for scientific practice in the 17th and 18th Centuries is taken up in Foucault’s next book The Order of Things: An Archaeology of the Human Sciences (New York: Vintage, 1973) originally published in French in 1966. In this book he outlines how the theory of language, biology, and economy are all tied together by this common bond.
2. Ibid. and The Archaeology of Knowledge: The Discourse on Language, trans. by A.M. Sheridan Smith. (New York: Harper and Row, 1972), originally published in French in 1969. Part of the difficulty in understanding the concept of the gaze is that it represents an early development in Foucault’s attempt to explore the boundaries of non-intentional historical processes. The influences of phenomenological conceptions are evidenced, however, when the gaze appears to refer to a preconscious state of mind. In his later works, Foucault clearly separates himself from the phenomenological tradition by using the concept “discursive practices.”
3. Archaeology of Knowledge, p. 54.
5. Ibid. p. 34.
6. Ibid. p. 38.
7. Ibid. p. 51.
9. Ibid. p. 158.
10. Ibid. p. 159.
11. Ibid. p. 187.
12. Ibid. p. 198.
13. Ibid. p. 189.
15. Ibid. pp. 84, 85.
16. Archaeology of Knowledge, op. cit. p. 34.

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Vital Signs

CATCH - $2.5 BILLION
The following Wall Street Journal story—although a little complicated—is reprinted without comment as an appropriate final word (we hope) on the disastrous US swine flu program:

"Here's another bizarre facet of that flawed gem, the swine flu vaccine program: Uncle Sam gave each vaccine producer $2.5 million to pay claims up to that amount that Uncle Sam might have against the company.

"That amounts to handing a neighbor $100 to hold in case you sue him for damage his dog does. But for the vaccine makers it could’ve meant having to pay federal income tax on the $2.5 million.

"They didn’t think they should be taxed, as they could only use the government’s money to pay the government. And if they hadn’t paid it all back by August 31, 1985, in claims, the remainder and any interest had to be returned to the government.

"The Internal Revenue Service recently relieved the pharmaceutical concerns of that problem. The IRS ruled that the money wasn’t taxable to the companies until they paid out a claim. But then the claim would be deductible as a business expense, so the bottom-line effect would be no tax for the companies. ‘It would be a wash,’ a Richardson-Merrell Inc. official explained.

"The IRS ruling also relieved the government of further expense. By terms of contracts covering their vaccine production. The companies self-insured themselves for the first $2.5 million with the government’s money; commercial insurance covers them for any amounts over that much that they might have to pay Uncle Sam. Premiums for that insurance are paid by the government.

"The immunization effort was halted after some recipients developed Guillain-Barre Syndrome, a rare paralytic disease, and the number of swine-flu cases last winter proved to be drastically less than the feared epidemic numbers.

"Besides Richardson-Merrell, the vaccine was made by Merck & Co.; Parke, Davis & Co., unit of Warner-Lambert Inc.; and Wyeth Laboratories division of American Home Products Corp. They were to make the vaccine without profit as a government-industry effort. Obtaining insurance against liability claims, however, proved to be a huge hurdle. It was surmounted finally by the government making itself responsible for any damages that people suffered.

"However, the government can seek reimbursement for damages it pays from the vaccine makers if they were either negligent or failed to carry out the terms of their contract covering their vaccine production. The companies self-insured themselves for the first $2.5 million with the government’s money; commercial insurance covers them for any amounts over that much that they might have to pay Uncle Sam. Premiums for that insurance are paid by the government."

(Reprinted from article by Sanford L. Jacobs, Wall Street Journal, April 28, 1977.)

ALAS, POOR DRUG STOCKS
After a long and lucrative history, drug stocks have fallen on hard times, reports the Wall Street Journal (April 22, 1977). First quarter earnings have been...
been disappointingly small, with some leading issues trading below the 1974 bear market lows.

"Real growth in the use of ethical drugs has been absent," according to one security analyst quoted. "New prescriptions have been flat for the last three years, while refill prescriptions have actually declined."

The reasons? Bad weather last winter, say the more optimistic. Loss of drugs through Federal Drug Administration challenges, say others. But the most fundamental problem, analysts seem to agree, is the industry's inability to churn out new drugs fast enough. Only SmithKline came up with a drug considered a significant innovation last year—Tagamet, for the treatment of ulcers.

Add to these problems the fact that 60 to 70 percent of the present 200 top drugs will lose their patent protection by 1980, and the only bull market one can foresee is one for corporate headache remedies. Alas.

"BIG MAC" FOR HOSPITALS?

Hospitals—always seeking new means of expansion—have discovered a new fix, peddled by the same folks who brought you the New York City fiscal crisis: the purchasers of tax-exempt bonds, primarily large banks.

Hospitals are increasingly turning to tax-free bonds to finance expansion and remodeling efforts, according to the Wall Street Journal (April 25, 1977). Such financing jumped 153 percent in the first quarter of this year. And the bonds—virtually nonexistent for hospital financing six years ago—already account for more than 50 percent of construction and remodeling funds, according to one leading hospital underwriter.

Many hospitals are finding it relatively easy to get the tax-free interest rates traditionally reserved for cities, states and public authorities. Compared with commercial interest rates of 9 to 10 percent, borrowing costs on general obligation bonds range from 3.324 percent to 7.75; on revenue bonds the spread is from 4.924 to 7.51 percent.

Why have hospitals become attractive to the banks and other bond buyers? The leading reason cited by the Journal is the reliable revenues provided by Medicare, Medicaid and private insurers. Also, hospitals are generally in a "monopoly position... in their community, secured in many cases by state-approved certificates of need."

The bonds do bring risks for investors, the story notes. Chief among them are increasing government intervention in hospital operations (as in "caps" on costs, charges, revenues or capital expenditures) and threats from "competing health care plans" (e.g., HMOs).

POLICING TOXIC SUBSTANCES...

Millions of American workers are regularly exposed to toxic substances but don't know it because the substances are contained in products sold under trade names with unlisted ingredients. According to a study reported in the Wall Street Journal (April 28, 1977), the number of exposed workers could be as high as 14 or 15 million, based on testimony by Dr. John Finklea, director of the National Institute for Occupational Safety and Health (NIOSH) before a House subcommittee.

NIOSH officials themselves have been able to identify only about half of the 86,000 trade-name products' ingredients used in workplaces. Of these, only about 20,000 contain ingredients subject to regulation under the Occupational Health and Safety Administration (OSHA) of the Department of Labor.

OSHA has been able to issue standards for only 15 such substances to date because standards development is an extremely lengthy process. One federal official noted that this leaves "workers exposed to thousands of toxic substances, hundreds of which may cause cancer." Other witnesses before the subcommittee urged that temporary standards limiting such substances be issued quickly, pending final determination of standards for exposure.

... BUT WHO WATCHES THE POLICEMEN?

Meanwhile, one practice of NIOSH came under attack due to a memo by one of its own officials, according to The New York Times (April 25, 1977).

Dr. Kenneth Bridbord, head of the agency's Office of Extramural Coordination and Special Projects, pointed out that names and addresses of 74,000 workers who have a far greater risk of cancer than the general public are kept secret by the agency. In a memo to NIOSH head Finklea, Bridbord pointed out that early warnings to these workers would save numerous lives, and that NIOSH might face charges of legal liability for failing to notify the workers at risk.

Finklea's response? Claiming NIOSH lacks necessary...
funds and authority, he argued that the question is beyond his agency’s responsibility and that notifying workers without an effective follow-up system “might do more harm than good.”

Finklea’s—and NIOSH’s—lackadaisical attitude about workers’ health and safety are currently being challenged, however, in several separate court suits. In one, 400 asbestos workers are suing HEW, claiming they contracted asbestosis because the government failed to give them timely warnings about the lung disease.

MAKING THE WORLD SAFE FOR POLLUTION:
A PARABLE FOR OUR TIMES

Scientists at Cornell University have recently uncovered serious side effects of industrial pollution from the Great Lakes region in the high mountain lakes of upstate New York. Deadly rain and snow, bringing with them corrosive industrial pollutants, have wiped out fish life in 90 percent of the lakes studied, whereas in the 1930s they were teeming with fish and only 4 percent of the lakes were barren.

What to do about the problem? According to an article in The New York Times (March 28, 1977),

“A short-term remedy for acidity would be to place limestone in the affected lakes, but Dr. Schofield and other researchers said it would be economically impractical to treat hundreds of lakes in that manner.

Another suggested solution is the elimination of sulfur from fuels and stack emissions, something that is being done on a small scale. However, Dr. Likens estimated that it would cost about $4 billion to reduce United States emissions of sulfur dioxide to half the current level.

“One other solution, breeding a more resistant strain of trout, is being tried, and experiments with different varieties are being conducted in some Adirondack lakes.”

As for catching and eating the new pollution-resistant fish: Bromoseltzer, anyone?

FIGHTING FIRE (ANTS)
WITH FIRE: STATE CAPITALISM IN MISSISSIPPI

“We are back in business,” says Jim Buck Ross, Commissioner of Agriculture for the State of Mississippi. With that announcement the State of Mississippi resumed its sale of Mirex, a deadly pesticide used to control fire ants in Southern states. Potential buyers should hurry, though, since the sale lasts only until December 31, 1977, after which aerial spraying of the insecticide is banned under an edict from the US Environmental Protection Agency.

Mirex is one of the most persistent insecticides found in the environment—it is not water-soluble and remains intact for years. However, under certain climatological conditions it breaks down into kepone, a deadly compound that recently triggered serious neurological and reproductive disorders among workers at an Allied Chemical subsidiary in Hope well, Virginia.

The plant in Mississippi is presently the only one in the US producing Mirex. Previously operated by Allied Chemical (who else?), Allied palmed it off on the State of Mississippi for the grand total of $1 in the spring of 1976, while the kepone disaster was blowing up in Virginia. Allied claimed at the time that the operation was unprofitable.

Mississippi continued to operate the plant for several months, using the proceeds in part to pay back Allied for the ingredients left behind and in part to swell the coffers of the State Treasury. But operations ceased when it ran out of supplies last winter. The State then offered to buy and market 200,000 pounds of Mirex from Hooker Chemical and Plastic Corporation in Buffalo, which had previously manufactured the chemical.

The deal fell through when Hooker insisted that the State take out an insurance policy to protect the company against future Mirex-related lawsuits. Mississippi was apparently glad to oblige, but it couldn’t find an insurance company willing to underwrite the policy.

Now the State has found the necessary supplies from a New York State subsidiary of Engelhard Minerals and, as the Commissioner says, they’re “back in business.” Who knows, maybe the State can find farmers who will hire workers to handspread the insecticide. This way they could circumvent the EPA ban on aerial spraying and go on producing Mirex happily ever after.

ANNOUNCEMENTS

Penguin Books has just published Barbara Garson’s All the Livelong Day in paperback ($1.95). The book, subtitled “The Meaning and Demeaning of Routine Work,” examines the lives and thoughts of workers in a variety of industries—from workers in a medical lab and an insurance company to workers in a tuna-fish factory and an auto assembly plant—and the stratagems they use “to restore meaning to jobs drained of meaning in the name of profit.”