LEGISLATIVE NEWS

Hospital and Health Care Costs

Revised Gross National Product (GNP) data recently released by the Commerce Department indicate that the nation's output of goods and services declined nine tenths of one percent in the first quarter of 1982 on a current price basis. After adjustment for inflation, GNP fell 4.3%.

Certain measures of economic activity are termed "leading indicators" because changes in their trend antedate or "lead" the movement of the larger economy. In recent months, several of these data series have begun to move upward, signaling near-term improvement in the nation's economic health.

Importantly, the reduced rate of price inflation should provide a sounder basis for renewed economic growth than we have seen following some other recent recessions. Stable domestic prices should improve our international competitiveness and reduce the appeal of many foreign products which have established significant positions in American markets.

Lower inflation, increased business investment in plant and equipment combined with a renewed emphasis on product quality appear to be the only solutions to the competitive problems of the beleaguered industries in the nation's industrial heartland.

During the first three months of 1982, the key measures of hospital financial activity increased at lower rates than during the fourth quarter of 1981 and the first quarter of 1981 (Table 1). Total hospital expenses rose 16.8% in the period following the 18.6% increase in the last quarter of 1981 and a near 20% rise in the first three months of 1981. Inpatient expenses rose less rapidly (16.5%), and the rate of increase of total patient revenue fell more than one and a half percentage points from the fourth quarter level of 18.9%. A year earlier, this measure stood at 19.1%.

Both expense and revenue per admission rates of increase declined during the first quarter of 1982 as well. The expense figure rose 16.8% after increasing 17.9% in the final quarter of 1981. Corresponding revenue figures were 18.3% and 17.3% respectively.

The pattern of general reduction in hospital service utilization which emerged in the fourth quarter of 1981 continued in the first three months of 1982. Total admissions actually declined two tenths of one percent while the growth in elderly admissions was a modest 1.1% in the quarter.

Numbers of patient days (total and over 65), surgical operations and outpatient visits also fell in the first quarter while births increased four tenths of one percent. Adult occupancy fell 2% in the quarter. Only births and adult occupancy registered declines in the fourth quarter of 1981, and nearly all of these utilization measures posted significant increases during the first quarter of 1981.

The first quarter of 1982 was marked by further improvement in health care price measures (Table 2). Though the sector did not match the performance of the broad all-items index of consumer prices (up only six tenths of one percent in the quarter following an eight tenths rise in the fourth quarter of 1981), gains were made in hospital room charges and physicians' fees.

The Consumer Price Index (CPI) measurement of hospital room rates climbed 3.7% in the first quarter — down from the 5% increase posted in the final three months of 1981 and slightly lower than the 3.9% increase

(continued)

https://doi.org/10.1017/S0195941700057660 Published online by Cambridge University Press

A Guide to the Use of Serological Markers in a Comprehensive Hepatitis B Vaccine Immunization Program

The Value of Screening and Post-Testing High Risk Patients.

HEPATITIS INFORMATION CENTER
Abbott Laboratories, Diagnostics Division

Assessing the Need...

A significant advance in immunology.
The introduction of Heptavax-B® (Hepatitis B Vaccine, MSD) holds the promise of effecting a marked reduction in the incidence of hepatitis B virus (HBV) infection.

Who should receive the vaccine?
Certain demographics will identify those groups which should have priority access to the vaccine. Recognized high risk categories include: medical and dental personnel, hemodialysis patients and the staff at dialysis centers, laboratory personnel, homosexually active males, institutionalized patients, paramedics, close contacts of chronic carriers, travelers to and immigrants from endemic areas, and illicit drug users.

Why screen high risk candidates for anti-HBs and anti-HBc prior to vaccination?
The supply and cost of hepatitis B vaccine plus the fact that a percentage of the high risk groups cannot benefit from the vaccine (due to previous or current HBV infection) make it clear that individual need should be established. Giving it to those who cannot benefit is a waste of resources and finances.

Testing the patient for anti-HBs and anti-HBc provides the physician with the relevant data. The procedure is uncomplicated and cost effective.

A positive test result for anti-HBs (antibody to hepatitis B surface antigen) indicates clinical recovery from and immunity to hepatitis B infection.

A positive anti-HBc (antibody to hepatitis B core antigen) test result is an early indication of acute infection. It is also a long-lasting marker that can be detected for many years and is usually present long after recovery from acute hepatitis.

By ordering both tests, it is unlikely that any subjects with asymptomatic acute or chronic infection, or previous exposure, would be missed (as is possible with the anti-HBs test only). Also, the high risk patient who is only positive for anti-HBs would not be missed. Furthermore, some individuals may test anti-HBs *negative*/anti-HBc *positive*. These should be tested for HBsAg (surface antigen). If this marker is positive, an acute or chronic infection is confirmed; vaccination is not necessary.

The value of post-testing for anti-HBs.
There has been discussion of the validity of post-testing for anti-HBs to verify immunity. Primarily, this has been based on the clinical findings of two studies. In one, there was evidence of immunity in 96 percent of the subjects after administration of the 3-dose regimen.[1] In the other, 85 percent attained immunity.[2]

There is a correlation between age and responsiveness, and between the person's general health and responsiveness. Adults do not respond as vigorously as do children. Healthy individuals respond better than people who are immunosuppressed or immunocompromised.[3]

While the studies support the efficacy of the vaccine, these findings do not obviate the need to know if immunity definitely exists subsequent to vaccination *and* if the immunity continues to exist.

In most cases where serologic evidence indicates that the individual can benefit, the vaccine will induce the development of anti-HBs. Immunity will be achieved. For how long, is not known. Periodic testing for anti-HBs will confirm the presence of immunity over time.

The use of serological markers is important to an effective hepatitis B immunization program.
A screening program will help assure that the available supply goes only to those who can benefit; specifically, individuals who do not express serologic evidence of previous or current exposure. The post-test program should be used because of the obvious consequences that can arise if the recipient who assumes immunity subsequently becomes infected.

REFERENCES

1. Szmuness, W.; Stevens, C.E.; Harley, E.J., et al: Hepatitis B vaccine: Demonstration of efficacy in a controlled clinical trial in a high-risk population in the United States, *N. Engl. J. Med.* 303 (15): 833-841, October 9, 1980.
2. *Heptavax-B® (Hepatitis B vaccine, MSD),* package insert issued by Merck Sharp & Dohme, May 1982, A.H.F.S. Category: 80:12.
3. Hillerman, M.R.; Buynak, E.B.; McAleer, W.J., et al: Hepatitis A and hepatitis B vaccines, in *Viral Hepatitis 1981,* W. Szmuness; H. Alter; J. Maynard (ed.), Philadelphia, The Franklin Inst. Press, 1982.

For more information on Viral Hepatitis, send for free kit...

Hepatitis Management: Understanding and Monitoring Viral Hepatitis B

CUT ALONG DOTTED LINE

2103492 IC

HEPATITIS INFORMATION CENTER
Abbott Laboratories
Diagnostics Division AP6C4
North Chicago, IL 60064

Please reserve my free copy

Hepatitis Management:
Understanding and Monitoring Viral Hepatitis B

NAME TITLE

INSTITUTION

ADDRESS

CITY STATE ZIP

An invaluable addition to your reference shelf...a practical tool to help you identify and test hepatitis B vaccine candidates, and diagnose and manage patients with hepatitis. You'll receive:

- The *Hepatitis Forum* issue dedicated to the hepatitis B vaccine.
- Definitive monographs covering all types, all aspects of viral hepatitis.
- Hepatitis algorithm detailing the recommended steps in serodiagnostic assessment.

This kit will be available in limited quantities. Reserve your free copy now by sending coupon or writing to...

HEPATITIS INFORMATION CENTER
Abbott Laboratories
Diagnostics Division AP6C4
North Chicago, IL 60064

ABBOTT LABORATORIES
Diagnostics Division
North Chicago, IL 60064

https://doi.org/10.1017/S0195941700057660 Published online by Cambridge University Press

TABLE 1

HOSPITAL INDICATORS: PERCENTAGE CHANGES FOR SELECTED PERIODS

FINANCES Expenses		1980	1981	4Q 1981	1Q 1982
Finances					
Expenses	—Total	17.0	18.7	18.6	16.8
	—Inpatient	16.8	18.4	18.4	16.5
Patient Revenue	—Total	18.0	18.6	18.9	17.3
Expense per Admission		13.5	17.4	17.9	16.8
Revenue per Admission		14.5	17.3	18.3	17.3
Utilization					
Admissions	—Total	2.9	0.9	0.5	−0.2
	—Over 65	6.7	3.0	1.7	1.1
Patient Days	—Total	3.4	1.2	0.1	−0.8
	—Over 65	6.6	2.9	1.2	−0.8
Surgical Operations		4.0	1.7	1.7	−0.2
Births		3.5	0.2	−0.7	0.4
Outpatient Visits		3.0	1.4	2.0	−0.2
Adult Occupancy		1.9	−0.1	−1.2	−2.0
Length of Stay*		7.2	7.2	7.3	7.3
Facilities					
Beds		1.2	1.7	1.2	1.2

Source: American Hospital Association Panel Survey
**Days.*

(continued)
recorded in the first quarter of 1981.

Similarly, fees for physicians' services rose 2.3% in the first quarter compared to an increase of 3.6% in the initial three months of 1981 and a 2.7% increase in the fourth quarter of 1981.

The broader CPI measures of Medical Care and Medical Care Services (both up 2.8% in the quarter) generally follow the movement of the physician and hospital components.

These first quarter results are somewhat encouraging to those concerned with the problems of rising health care costs. The utilization data are particularly of interest and continue to be the key to most cost containment objectives.

TABLE 2

PRICE MEASURES: PERCENTAGE INCREASES FOR SELECTED PERIODS
(CPI-U: not seasonally adjusted)

	1980	1981	4Q 1981	1Q 1982
All Items	12.4	8.9	0.8	0.6
All Services	14.2	13.0	1.4	1.1
Medical Care	10.0	12.5	2.8	2.8
Medical Care Services	10.0	12.7	2.9	2.8
Physicians' Services	11.0	11.7	2.7	2.3
Hospital Room	13.9	17.0	5.0	3.7

Source: Bureau of Labor Statistics Panel Survey.

https://doi.org/10.1017/S0195941700057660 Published online by Cambridge University Press