

Providing health care to Hawaii's elderly

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Hawaii's rapidly aging population is a challenge for Hawaii's health care providers. What with the high cost of care, limited health care resources, and a rapidly increasing population of frail elderly patients living in the community, will our medical practices be able to adapt to the care of patients who require more time and who will have not only multiple medical illnesses but complicated psychosocial conditions as well? Will our health care facilities be prepared for the typically longer stay and more expensive older patient? Will the cost of care in Hawaii keep on rising? Who will pay? Will this challenge turn into a crisis?

Demography of aging in Hawaii

Ours is one of the nation's most rapidly aging populations. In 1989, the ≥ 65 years population numbered 125,300 or 10.7% of the State's population. In comparison to the national average of 12.5%, Hawaii has a lower percentage of elderly. Within the next 2 decades, however, Hawaii's population ≥ 65 is projected to increase by over 50% while the total resident population is expected to increase by only 23.3%. This change represents a rate of growth more than 2.5 times the national growth rate of the elderly. Consequently we will witness before the turn of the century the convergence of the proportion of the elderly in Hawaii with the national average as depicted in Figure 1¹.

The dramatic rise in the proportion of elderly in Hawaii is partly attributable to the rapid rise in the life-expectancy of Hawaii's people. It is well established that Hawaii's life-expectancy at birth is the nation's highest. In 1985, Hawaii's life-expectancy at birth was 77.98 years; this was higher than every state in the Union. The corresponding figure for the entire U.S. for that same year was 74.7 years, or 3 years less. Based on available international evidence from other high life-expectancy countries in Europe and Japan, there is reason to believe that Hawaii's life-expectancy rate might be among the highest in the world as well².

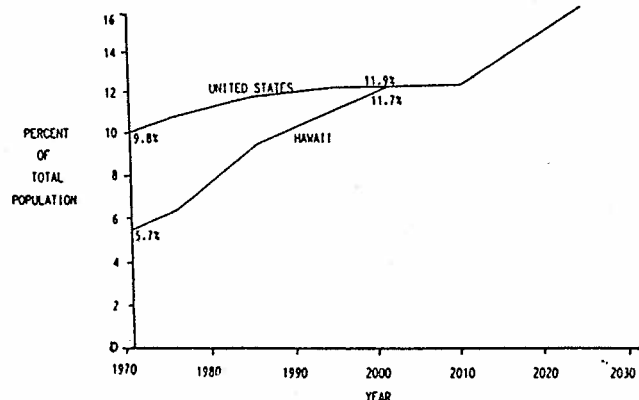
As portrayed in Figure 2, the elderly population (≥ 65 years) is aging in ways similar to patients for both the U.S.

and Hawaii, ie moderate proportional increases occurring in the 75- to 84-year-old category, a large proportional increase occurring in the ≥ 85 -year-old category and a proportional decrease occurring in the 65- to 74-year-old category. While this change is expected to occur over a 100-year period (1900 to 2000) for the entire U.S., it is occurring in Hawaii over only 50 years (1950 to 2000). The rapid increase particularly in the proportion of those over age 85 will place an enormous burden on available long-term care services since the need for long-term care rises sharply with age³.

Present and projected health care delivery systems

The added challenge of providing health care to an aging population will further strain an already stretched health care system. In 1989, Hawaii's acute care bed supply of 193.4 beds per 100,000 remained far below the national average of 353.4 beds per 100,000⁴. Hawaii has maintained a significantly lower hospital admissions rate of 107.5 per 1,000 population versus 135.9 per 1,000 for the U.S. as a whole. As a consequence, Hawaii's hospital occupancy (82.8% versus 69.6% for the U.S.) and outpatient hospital services rates

FIGURE 1
Percent Elderly (65+) in Hawaii and U.S.
1970 to 2030



Source: Hayashida CT, Sherman S and Sasaki H. *Adult Day Care Centers in Hawaii: Comprehensive Assessment for Strategic Planning for the 1990s*. Kuakini Geriatric Care, Inc., Honolulu, Hawaii. December 1987. Page III-42.

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(2,074.5/1,000 versus 1057.5/1,000 for the U.S.), were appreciably higher.

Acute hospital bed availability is tight not only because of the low ratio of beds per 1,000 population, but also because of the shortage of long-term care beds. Approximately 200 acute care beds, representing 10% of Hawaii's total medical-surgical bed supply, are occupied by patients awaiting placement in long-term care⁵. The proportion of medical-surgical beds occupied by wait-listed patients on the Neighbor Islands is even greater. With only 3,416 long-term care beds available, Hawaii's ratio of 27.3 beds per 1,000 elderly is far below the national average of 65.5 beds per 1,000 elderly. Furthermore, since 1984, there has been an actual decline in the ratio of nursing home beds per 1,000 elderly.

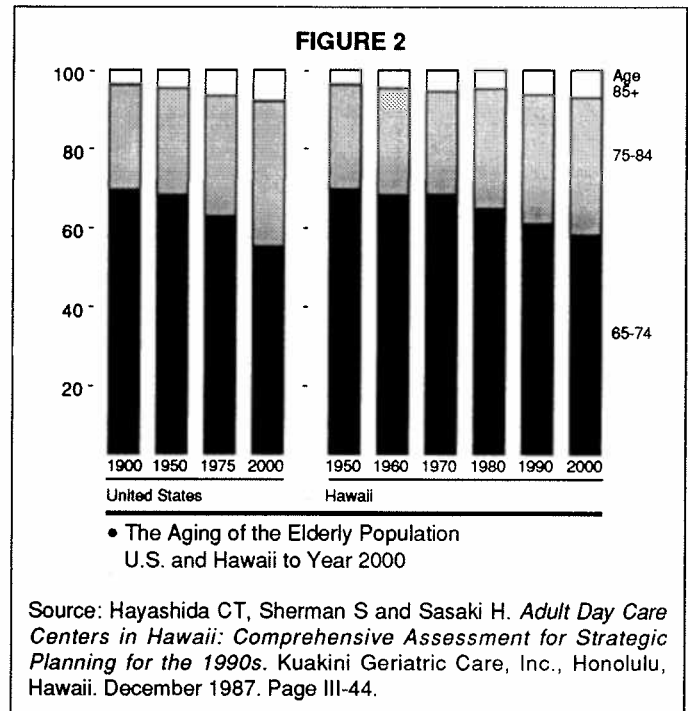
Hawaii's health care system is clearly not meeting the needs of Hawaii's elderly population. And the back-up of long-term care patients in acute hospital beds is likely to worsen in coming years. Since March 1990, there has been no new construction of long-term care beds. In January 1992, were about 180 nursing home beds that have been approved by the Hawaii State Health Planning and Development Agency (SHPDA). These beds, however, are not expected to be available for at least another 2 years. Even then, this new supply will fall far short of Hawaii's growing demand for institutional long-term care services.

One reason for the historically low nursing home bed ratio is that Hawaii's families have long been the major source of long-term and informal support to the frail and dependent elderly population. In comparison to their Mainland counterparts, Hawaii's families may continue to be more supportive of their elderly parents.

More recently, other factors, such as the fiscal pressures for earlier discharge from acute care, as exemplified by the Medicare DRG hospital payment system, have been significant. The State's Medicaid program has faced increased budget tightening and, therefore, has been unable to increase its reimbursements for institutional long-term care services.

Increased competition posed by the visitor industry to entry-level workers represents a significant factor in curtailing the health industry's labor pool. Without adequate staffing, available beds cannot be used. This is compounded by the strict requirements for certification, licensing and training imposed by the state and federal governments.

The nursing home bed shortage is already beginning to have repercussions on the health care delivery system. Hospitals are competing for limited nursing home beds by structuring special arrangements for more favorable status with nursing homes. The paucity of vacancies in nursing homes is increasing as indicated by the subversion to sub-acute or super-SNF levels, and hospitals are forced to create their own nursing home units. Care homes of higher level that were able to transfer clients to nursing homes previously are now being denied that access. As a result, the Department of Human Services (DHS) has been forced to create a separate payment rate for care homes that have ICF-level clients in order to accommodate the backlog. Because of the premium on beds, nursing homes are in a position to admit patients selectively.



Patients who are difficult to care for or who have little or no financial support are unlikely to be chosen. As a result, their families are experiencing more stress and burden, which is conducive to an increase in elder abuse and neglect cases.

As for current and projected cost of health care services, according to the Hawaii State Executive Office on Aging, it is expected to grow almost exponentially from now into the 21st century. Consider these sobering statistics given in today's dollars. Within the next 30 years or by the year 2020⁷:

- The State's portion for the Medicaid program for elderly nursing home care will grow by more than 1,300% from \$38.3 million in 1991 to over \$544 million. This represents only 33% of the total cost, with families and the federal government also contributing a third each.
- The total long-term care bill, including the costs of nursing home and paid home care in Hawaii will grow by more than 1,000% to a staggering \$2.05 billion.

The national deficit that has exceeded \$4 trillion does not give Hawaii much hope that the federal government will be the expected panacea. Efforts to reduce Medicare's rate of expenditure have been made and will continue to be made. The U.S. government also considers its participation in the Medicaid program as a plausible target for federal budget cuts in the years ahead.

Conclusion

There is great pressure to control the cost of health care. At the same time, the aging population will have a higher prevalence of disease and will require more intensive acute and long-term care services. Hawaii, with its limited hospital bed capacity and high cost of care, is on the frontline of these challenges.

To keep challenge from turning into crisis, certain strate-

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Description: Yohimbine is a 3a-15a-20B-17a-hydroxy Yohimbine-16a-carboxylic acid methyl ester. The alkaloid is found in Rubiaceae and related trees. Also in Rauwolfia Serpentina (L) Benth. Yohimbine is an indolalkylamine alkaloid with chemical similarity to reserpine. It is a crystalline powder, odorless. Each compressed tablet contains (1/12 gr.) 5.4 mg of Yohimbine Hydrochloride.

Action: Yohimbine blocks presynaptic alpha-2 adrenergic receptors. Its action on peripheral blood vessels resembles that of reserpine, though it is weaker and of short duration. Yohimbine's peripheral autonomic nervous system effect is to increase parasympathetic (cholinergic) and decrease sympathetic (adrenergic) activity. It is to be noted that in male sexual performance, erection is linked to cholinergic activity and to alpha-2 adrenergic blockade which may theoretically result in increased penile inflow, decreased penile outflow or both.

Yohimbine exerts a stimulating action on the mood and may increase anxiety. Such actions have not been adequately studied or related to dosage although they appear to require high doses of the drug. Yohimbine has a mild anti-diuretic action, probably via stimulation of hypothalamic centers and release of posterior pituitary hormone.

Reportedly, Yohimbine exerts no significant influence on cardiac stimulation and other effects mediated by B-adrenergic receptors, its effect on blood pressure, if any, would be to lower it; however no adequate studies are at hand to quantitate this effect in terms of Yohimbine dosage.

Indications: Yocon[®] is indicated as a sympatholytic and mydriatic. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.^{1,2} Also dizziness, headache, skin flushing reported when used orally.^{1,3}

Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.^{1,3,4} 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to 1/2 tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.³

How Supplied: Oral tablets of Yocon[®] 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

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gies are necessary. Patients whose health is likely to deteriorate must be identified before it does. Once these patients are identified, there must be effective intervention. The special approach to geriatric syndromes and chronic diseases common to the elderly must be emphasized. There must be effective alternatives to hospitalization and institutional long-term care. (A forthcoming issue of this 2-part article will discuss such strategies.)

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These Glorious Golden Years!

Remember, old folks are worth a fortune,
with silver in their hair, gold in their teeth,
stones in their kidneys, lead in their feet,
and gas in their stomachs.

I, myself, have become a little older since I saw you last,
and a few changes have come into my life since then.
Frankly, I have become quite a frivolous old gal.
I am seeing five gentlemen every day!

As soon as I wake up, Will Power helps me to get out of bed.
Then I go to see John. Soon, Charley Horse comes along, and,
when he is here, he takes a lot of time and attention.
When he leaves, Arthur Ritis shows up and stays the rest of the
day. He doesn't like to stay in one place very long, so he takes me
from joint to joint. After such a busy day, I'm really tired and
glad to go to bed with Ben Gay! What a life!

P.S. — The preacher came to call the other day.
He said at my age I should be thinking about the hereafter.
I told him, "Oh, I do, all the time. No matter where I am —
in the parlor, upstairs, in the basement — I ask myself,
"What am I here after?"

Lillian Schwartz
Kukui O Pohai Nani