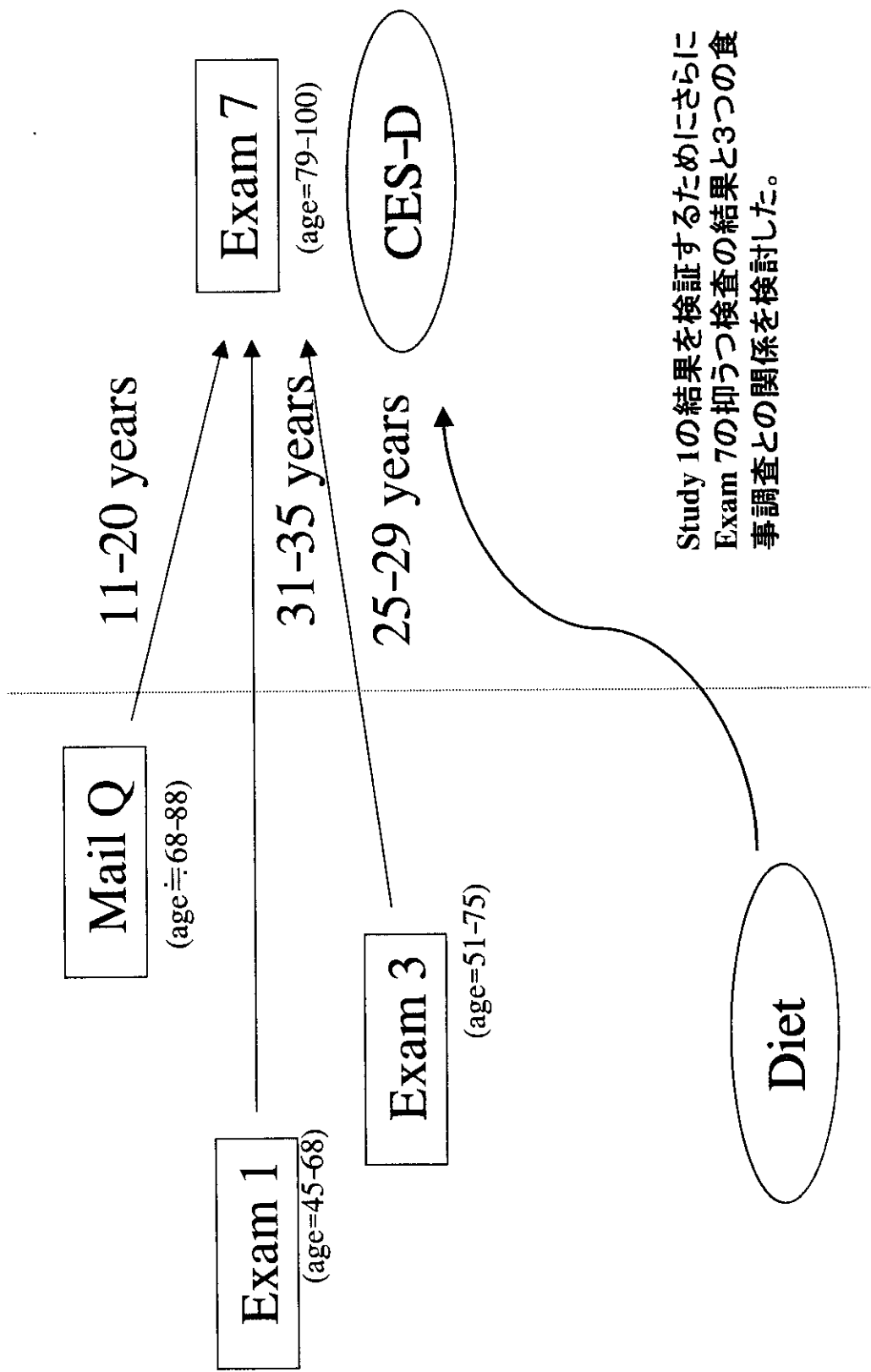
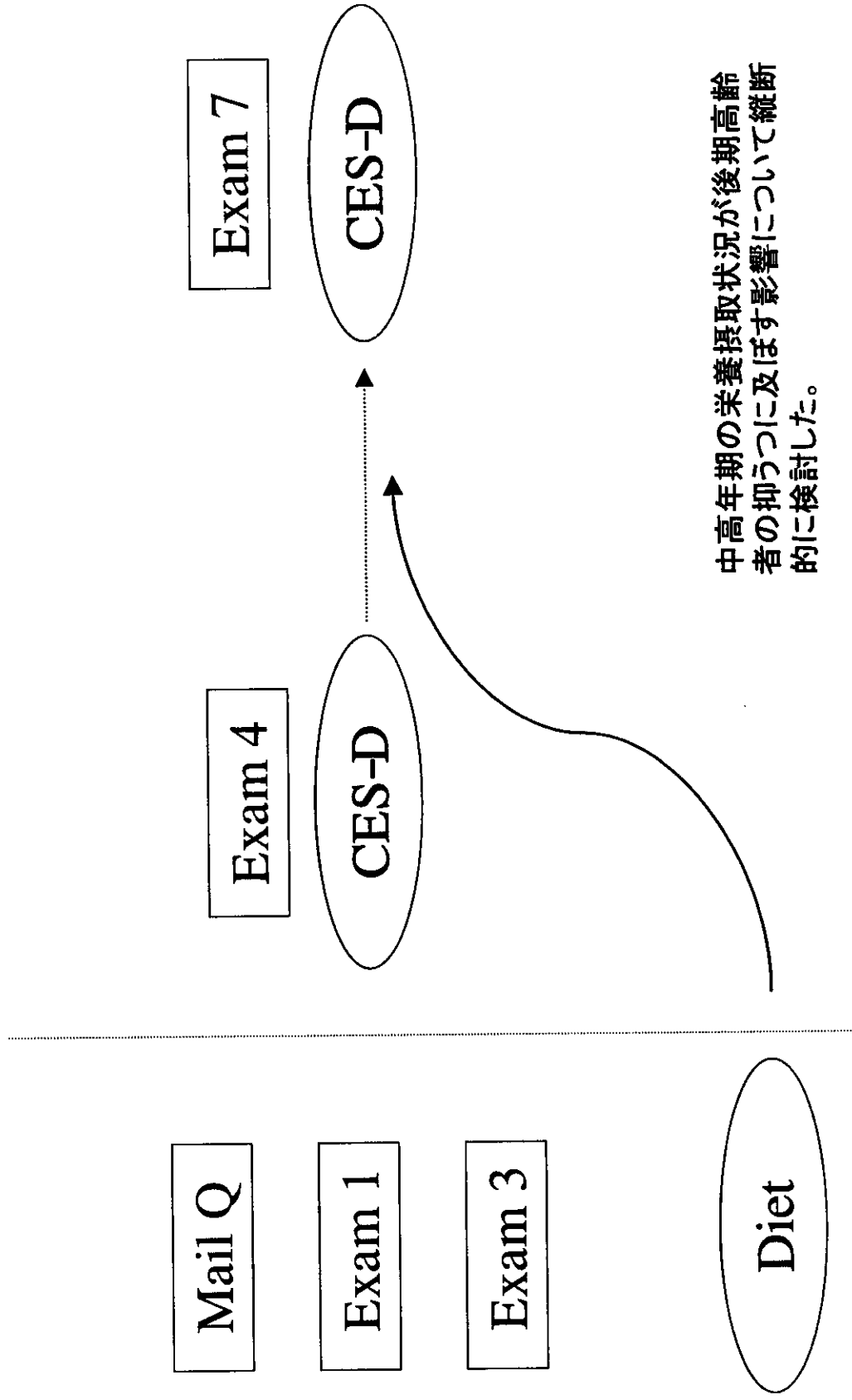


Fig.2 Design of the Study 2 in the HHP/HAAS



Study 1の結果を検証するためにさらに
Exam 7の抑うつ検査の結果と3つの食
事調査との関係を検討した。

Fig.3 Design of the Study 3 in the HHP/HAAS



中高年期の栄養摂取状況が後期高齢者の抑うつに及ぼす影響について縦断的に検討した。

Table1. HHP/HAASとNILS-LSAの比較

	HHP/HAAS	NILS-LSA
目的	ハワイ在住日本人における心疾患・脳卒中の発症頻度とその関連要因の解明	地域在住日本人の通常の老化の観察と老化・老年病に関連する要因の解明
対象		
人種	ハワイ・オアフ島に移住した日本人とその子孫	日本人
地域	米国ハワイ州オアフ島	愛知県大府市・知多郡東浦町
選定のための資料	第二次世界大戦日系人志願兵名簿	住民台帳
初回調査時年齢	1900-1919年生まれ(45歳から68歳)	40歳から79歳
選定方法	悉皆法・すべての対象に簡単なアンケートを送付。回答を寄せた者を母集団とし、改めて施設招待型調査への参加を依頼	層化無作為抽出法・性別年代別に地域住民を層化したのちに男女各年代(40, 50, 60, 70代)の参加者人数が約300人になるように無作為抽出
調査開始年	1965年	1997年
調査の継続	不定期	2年ごと
調査回数	2002年現在第8回調査継続中(37年で8回目)	2003年2月現在第3回調査継続中(5年で3回目)
調査母体	複合(Pacific Health Reserch Institute, Kuakini Medical Center)	国立長寿医療研究センター疫学研究部
主な調査費用	公募による研究費	公募による研究費
調査項目の特徴	心・血管疾患に特異的 調査ごとに調査・検査項目・質問様式が異なる	老化・老年病を幅広く捉える 基本的には縦断的に同じ調査・検査・質問を繰り返している
疾病発症・入院に関する調査	全島調査により入院・疾病発症調査を継続している	都市部で流動的な人口を対象としているために病院を対象とした調査は行えない
死亡調査	入院記録・死亡記事から集計	統計局の死亡個表から調査する予定
解剖	近年の調査項目の一つ	未定

Table 2 Summary of Study 1 and Study 2

food/nutrition data	depression data	depression accelerating factor	depression inhibitory factor
exam 1	exam 4	alcohol	ham, epa,dha
exam 1	exam7		milk,dairy-Ca, ham,butter
exam3	exam 4		
exam3	exam7	bacon, meat and meat products	
mail Q	exam 4	bacon, fastfood sandwich, beef and lamb and veal, pork and ham, shelfish, tunafish,rice,milk added to bev.	green vegetable,salada dressing
mail Q	exam7	bacon,beef and lamb and yeal,saimin and somen and udon,manjyu and mochi,saodas,	

Table 3 Summary of Study 3

food/nutrition data	epression data	depression accelerating factor	depression inhibitory factor
exam 1	exam7		milk,dairy-Ca, ham,butter,lactose
exam3	exam7	wieners, char siu	
mail Q	exam7	saimin and somen and udon,saodas, fruit and vegetable juice	

Project Proposal

From: Dr. Fujiko Ando, National Institute for Longevity Sciences
Dr. Robert D. Abbott, University of Virginia
Dr. Kamal H. Masaki, University of Hawaii
Dr. Hiroshi Shimokata, National Institute for Longevity Sciences
Dr. J. David Curb, Pacific Health Research Institute

Date: August 7, 2002

Hypothesis: Food and nutrient intake influences depression.

Background: In the Longitudinal Study of Aging (LSA) at the National Institute for Longevity Sciences, a one standard deviation increase in the consumption of chicken, pork, or beef was associated with a 2.3-fold increase in the odds of depression ($p < 0.05$). In contrast, the odds of depression declined by nearly 70% when fish intake was increased by one standard deviation ($p < 0.05$). These findings remained statistically significant after adjusting for age and several other confounding variables that are associated with diet and depression.

Purpose: We propose to examine similar dietary relationships in the Honolulu Heart Program and the Honolulu-Asia Aging Study (HHP/HAAS). Identifying similar relationships to those observed in the LSA would be important since arguments for real effects of nutrition on depression would be greatly strengthened. We further propose to compare our findings in the HHP/HAAS to those in the LSA from two separate studies.

Study 1: We propose to examine the association between dietary intake data collected at the time of study enrollment (1965-1968), at the 3rd examination of the HHP (1971-1974), and from questionnaires that were mailed to cohort members in 1988 versus depressive symptoms and the prevalence of depression that were observed at the 4th examination of the HHP/HAAS.

Study 2: We propose to examine the association between dietary intake data collected at the time of study enrollment (1965-1968), at the 3rd examination of the HHP (1971-1974), and from questionnaires that were mailed to cohort members in 1988 versus changes in depressive symptoms between the 4th and 7th examination of the HHP/HAAS. Special attention will be placed on the role of nutrition on incident depression in subjects without depression at the 4th examination.

Data requirements and sources:

1. Diet: 1st examination, 24-hour dietary recall and food frequency questionnaires.
3rd examination, food frequency questionnaire.
1988 mailed food frequency questionnaire.
2. Depression: CES-D (11-items) from the 4th and 7th examinations.
3. Confounding data: Age, medical history and mediations, marital status, education, height, weight, physical activity, blood pressure, blood chemistry, smoking, and alcohol intake from the above examinations when such data were collected.

Project Proposal

From: Dr. Robert D. Abbott, University of Virginia
Dr. Patricia Elmer, Kaiser-Permanente
Dr. J. David Curb, Pacific Health Research Institute
Dr. Fujiko Ando, National Institute for Longevity Sciences
Dr. Helen Petrovitch, Pacific Health Research Institute
Dr. Beatriz Rodriguez, Pacific Health Research Institute
Dr. Katsuhiko Yano, Pacific Health Research Institute

Date: August 8, 2002

Hypothesis: Intake of dietary magnesium is independently associated with a reduced risk of coronary heart disease (CHD).

Background: Dietary magnesium intake is thought to have an inverse association with blood pressure and CHD, although strong relationships with the intake of other nutrients has made it difficult to identify an independent effect.

Purpose: We propose to examine the relationship between dietary magnesium intake and the future risk of CHD in the Honolulu Heart Program (HHP) while adjusting for confounding effects that are associated with the intake of other dietary nutrients. Adjustments for the effects of age, hypertension, and other risk factors will also be made.

Data requirements and sources:

1. **Diet:** Intake of magnesium and the other nutrients will be based on 24-hour dietary recall records from the 1st examination of the HHP.
2. **Other risk factors:** Adjustments will be made for age, hypertension, and other risk factors factors that were measured at the time of dietary assessment (1st HHP examination).
3. **Follow-up for CHD:** All subjects will be free of CHD at the 1st examination. Men will be followed for definite CHD (myocardial infarction and CHD death) based on 30 year follow-up surveillance files.

Ⅲ. 研究成果の刊行に 関する一覧表

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以降は雑誌/図書に掲載された論文となりますので、
P.65-P66の「研究成果の刊行に関する一覧表」をご参照ください。

V. モノグラフ

MONOGRAPH

The Second Wave

April, 2000~May, 2002

**National Institute for
Longevity Sciences**

Longitudinal Study of Aging

NILS-LSA

- I. Objectives and Overview of the NLS-LSA
- II. Background Examinations
- III. Medication
- IV. Food and Nutrition
- V. Bone Mineral Density
- VI. Blood and Urine Analysis
- VII. Psychological Examinations
- VIII. Visual and Auditory Examinations
- IX. Physiological Examinations
- X. Physical Function Tests and Physical Activities
- XI. Anthropometry and Body Composition
- XII. Head MRI

I. Objectives and Overview of the NILS-LSA

I. Objectives and Overview of the NILS-LSA

- 1) Background and outline of the NILS-LSA**
- 2) Progress of the NILS-LSA**
- 3) Objectives of the NILS-LSA**
- 4) Research area**
- 5) Subjects**
- 6) Implementation of the study**
- 7) Informed consent**
- 8) Examinations and tests**
- 9) Future of the NILS-LSA**
- 10) Staff**

1) Background and outline of the NILS-LSA

The life expectancy of the Japanese population is the longest in the world. Both the absolute number and relative percentage of the elderly population in Japanese society is rapidly increasing. In 2020, the percentage of the elderly population in Japan will be the largest in the world. Along with these changes, various medical and care-giving problems for the elderly have arisen. Longevity science, with the goal that all of elderly people can live a long life with good physical and mental health should be promoted in Japan.

Human aging is associated with many factors, including not only physical and physiological factors but also social and psychological factors. Thus, research into human aging requires many kinds of examinations and specialists in various areas. In addition, human aging research requires long-term study in which the same subjects are measured repeatedly to observe age-related changes. However, the number of researchers and budget for studies on gerontological and geriatric epidemiology are limited. It has been very difficult in Japan to start and to continue a large-scale and comprehensive longitudinal study of aging, despite a rapid increase in the elderly population.

In 1995, a new national research institute of aging in Japan, the National Institute for Longevity Sciences (NILS) was established and in 1997 the NILS-LSA (NILS – Longitudinal Study of Aging) started. The participants in the NILS-LSA of the first wave were 2,267 randomly selected males and females aged 40 to 79 years from the NILS area. They will be examined every two years and now the third wave examination is carrying out. Six to seven participants are now examined every day at the NILS-LSA examination center. The aging process is assessed by detailed questionnaires and examinations including clinical evaluation, body composition and anthropometry, physical functions, nutritional analysis, and psychological assessments. The data from the study will be useful to investigate the causes of geriatric diseases and health problems in the elderly such as depression, mental disturbance, restriction of ADL, low nutrition and physical activity. The data will also be useful to prevent these diseases and health problems in the elderly.