1999;The CAVEAT Study Group, 1993;Adelman AG, Cohen,EA, Kimball, BP et al, 1993)の結果、再狭窄率がPOBAと同等で、また、合併症もPOBAよりも多かったために、期待に反して適応範囲が広がらず、1996年頃まで頻度が低下した。国循におけるDCAによるPCI実施率も、1994年における4.7%から96年には実施率0%にまで減少する。その後の臨床試験において粥腫を十分に切除することによって再狭窄率が減少することが証明され(角田、山口、1999;The BOAT Invesigators, 1998;Simonton CA, Leon MB, Baim DS et al, 1998; Suzuki T Hosokawa H, Katoh O et al, 1997)、また、ステント内再狭窄例での使用が見られるようになり、再度DCAの使用頻度が増加する傾向にあったが、太いカテーテルを用いること、また手技が煩雑で高度な技術が必要とされることから(角田、山口、1999)、依然使用頻度は低いままで、適応としては限定されている。国循においても、DCAによるPCI実施率は1997年に1.9%と若干増加したが、98年には1.0%と減少し、DCAに関する臨床試験の結果が治療選択に直接反映されている結果となった。

2-2)高速回転型アテレクトミー(Rotablator):ロータブレーターは、石灰化病変などの硬化した病変巣に対し唯一有効なdeviceであるが、ワイヤーのリコールがかかり、1996年以前は、国循における対象症例に対するロータブレーターによるPCIの実施は見られなかった。本邦では、1997年にロータブレーターの使用認可がおり、98年には保険適用が行われ、また、技術的にもワイヤーの改良版が出て治験も通り、ACC/AHAの病変形態分類におけるより複雑な病変形態であるtypeCなどに適応があることから、97年には1.2%、98年には3.4%と、徐々に頻度が上昇してきている。

(3) Palmar-Schaz(PS)ステント:PSステントは、1988年にバルーン拡張型のステンレス製のチューブ型ステントとして開発され、本邦では90年に治験がはじまり、93年に使用認可がおり、同年保険適用となった。1994年以降、欧米における無作為比較試験(Fishman DL, Leon MB, Baim DS et al, 1994;Serruys PW de Jaegere P, Kiemeneij F et al, 1994)により、POBAより再狭窄率が低いことが証明された。その後、急速にPSステントの使用頻度が増えたが、1996年頃からNIRステントやMultilinkステントなどの第2世代ステントが開発され、PSステントによるPCI実施比率は低下する。国循におけるPSステントの使用比率は、94年の9.5%から95年には7.7%と若干減少したものの、97年に本邦で第2世代ステントの使用認可がおりるまで急速に増加しつづけ(25.6%)、翌年には10.5%まで減少している。

7. 治療結果

本研究では、PCIの合併症をmajor/minor complicationに分類し、majorとして、死亡、MI、そして、手術(①24時間以内Elective;②カテ室から直行した緊急SVG;③緊急SVG以外の緊急、の3つを含む)、minorとして、心不全、腎不全、血腫および圧迫・手術を含む仮性動脈瘤を穿刺部合併症として定義づけ、表4に示したが、患者の治療成績や結果については、今後退院

後の追跡調査を行うことによって、さらに一層の情報収集をしていかなければならない。

侵襲的インターベンションの成功率は、CAGに引き続きCABG後のPCIを行った症例において最も高く96.4%であったが、PCI＝＞CABGの成功率が66.7%と非常に低かったために、全体としては、PCIのみの場合の方が、PCIとCABGの両方の治療を受けた場合と比較して約17%高い成功率となっている。PCI後手術に進む症例には、PCIが成功しないために手術に進んだケースも含まれているからであろう。major complicationをみると、PCIのみの症例が、合併症としての、死亡が0.2%、MIが1.5%、そして、手術が0.4%であるのに対し、PCIとCABG両方のグループでは、それぞれ、0%、1.1%、2.3%と、とりわけ、後者は合併症としての手術の比率が若干高くなっていることがわかる。但し、PCIとCABG両方のグループにおける治療成績を公平に評価するため、合併症としての手術比率に関しては、PCI後に緊急CABGになった症例をPCIのみ行った症例群に含めている。次に、minor complicationに関して、今回対象事例となった中には、心不全悪化や腎機能悪化の事例は見られなかった。また、穿刺部合併症についても、PCIのみ、あるいは、PCIとCABG両方のグループにおいて、約6-7%の症例に血腫が見られたものの、約93-94%の症例に穿刺部合併症はなかった。

8. 今後の課題

来年度の研究では、冒頭にあげた3つの長期的目的を達成するため、第1に、国循およびスタンフォード大学病院での更なる情報収集とデータの整備とを行う必要がある。国循においては、PCIファイルとともに、CABGファイルの整備、患者の予後情報に対する追跡調査、医療費および医療支出などの新たな情報を収集・電算化し、一方、スタンフォード大学病院では、現在メディケアの対象となる65歳以上の高齢者について、全国標準化フォーマットでのデータから抽出した情報を基に分析を行っているが、国循のデータと比較するためには、たとえば、部位やEFなど、より詳細なカルテ・ベースでの臨床情報や65歳以下の症例についても分析対象として含めなければならない。

第2の課題は、収集・整備されたデータについて、研究の目的にそった統計学的な分析方法を確立することである。前述したように、本研究は、無作為比較対照試験ではなく、既に観察されたレトロスペクティブな情報に基づいているため、基本統計から得られる治療選択あるいは治療成績に関する情報には統計学的な「偏り」-selection biasがあり、結果に対する正当性が疑われる可能性が高い。したがって、妥当性のある結論を導き出すためには、たとえば、propensity score methodなど、より洗練された統計手法を用い、得られた結果に対し、慎重に考察を加える必要があろう。

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Recent Changes in Treatment Trends for Patients with Acute Myocardial Infarction (AMI) and Ischemic Heart Disease (IHD) in the United States: from Comparative Perspectives between US and Japan

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Introduction

To provide explicit evidence on the nature and magnitude of technological change in the U.S. health care system, as well as to explore why these changes have occurred, we analyze recent changes in treatment trends for AMI in the United States and for patients with ischemic heart disease (IHD) admitted for CAG, PCI, or CABG procedures in a major teaching hospital with advanced cardiovascular capabilities. In the future, we are willing to extend the United States analysis to procedure trends for patients admitted to the hospital with diagnoses of IHD so that the overall US cohort and hospital cohort will be comparable. However, in this current report on US procedure trends, we will concentrate on trends for AMI patients.

In Section I of this report, we use detailed micro-data to describe the changes in AMI treatment that have occurred in recent years. The treatments used in AMI care are largely the same as those used in IHD care, so, with the exception of the specific trend estimates, the information contained in this section may be generalized to IHD care. Many cardiac treatments have changed, and summarizing the causes as well as the consequences of these changes is necessarily speculative. Nonetheless, the results presented here suggest that technological change in the United States has differed in important respects from changes in other developed countries.

In Section II, we describe the future comparison we plan to undertake looking at the United States nationwide trends for major cardiac procedures compared to the same procedures in a major U.S. research hospital. We expect to find a pattern of early adoption of high-tech procedures and higher trends than the national average in the hospital. By comparing to the national average, we will be able to determine whether the U.S. teaching hospital of interest in this study is indeed at the vanguard of technology diffusion in the U.S. as we have hypothesized. If the teaching hospital under scrutiny does appear to have a higher procedure rate than the national trend, it will then be interesting to compare high-tech care in the U.S. and Japan. In the future, comparisons of the high tech trends in the U.S. to those in Japan, including trends in a major teaching hospital in each country, may provide important insights about the costs, benefits, and productivity consequences of differences in incentives for technological change in alternative health care systems.

Section I. Procedure Utilization Trends in the United States

We present evidence on procedure utilization trends by analyzing large administrative databases to describe changes in some key "high-tech" AMI treatments. By high-tech treatment, we mean the use of procedures and devices that require substantial fixed investments in equipment and specialized personnel, or that have high equipment and personnel costs with each use, or both. We use administrative records from the Medicare program to describe trends in high-tech procedure use for the entire U.S. elderly population with AMI for 1985-1997, and we use hospital records from the state of California to describe trends in high-tech procedure use for the nonelderly population of the state for 1991-1996. Reliable longitudinal data on large populations of nonelderly AMI patients is not available prior to 1991; for the 1980s, we review some relevant clinical studies to supplement our results for the elderly.

The summary of changes in AMI treatment to be discussed shortly will focus on changes in treatment rates. New clinical trials, increased clinical experience, or other new information to guide practices may also improve the ability of health care providers to time the allocation of treatments more effectively, or target their use to patients who are particularly likely to benefit. Unfortunately, little longitudinal evidence on such criteria or "appropriateness of care" issues is available in the United States, for several major reasons. First, few large studies of U.S. AMI populations collected detailed information on patient characteristics and treatment prior to the 1990s. Second, the criteria for care depend on many complex patient factors that may be difficult to capture for analytic study, even with detailed record reviews. Thus it may be possible to identify some patients who clearly would not benefit from certain treatments, but it is hard to capture all of the subtleties of cases that may influence physician decisions.

In recent years, more studies of appropriateness of care have been published. In general, these studies do not find much evidence of clearly inappropriate use of high- or low-tech treatments in AMI care. However, most of these studies classify large shares of patients in "equivocal" or "possibly appropriate" categories, where the benefits of the treatment are unknown or likely to be modest. Substantial variations in treatment rates, especially for

intensive cardiac procedures, continue to exist not only across hospitals but also across small geographic areas in the United States. These variations do not appear to be diminishing, though few studies of changes in practice variations over time have been published. A final type of evidence suggesting that experience effects are important is the fact that larger hospitals have significantly lower mortality rates in AMI care (e.g., Luft et al., 1990), and that the benefits of treatment at a large hospital have increased over time (McClellan and Noguchi, 1998). But few studies have attempted to trace volume effects to differences in particular treatment choices. For all of these reasons, it is very difficult to quantify how the appropriateness of AMI treatment *given* rates of treatment use in the United States has changed over time. Nonetheless, trends in the appropriateness or experience of care may represent a very important source of outcome improvements.

Another factor to bear in mind is that the characteristics of AMI patients may have changed over time. The demographic characteristics of AMI patients have shifted gradually, toward a slightly older and more female population. Heidenreich and McClellan (1998) conclude that, over the past decade, AMI patients in the United States appear to have slightly higher rates of serious comorbid diseases on admission, and also slightly higher rates of shock. However, a larger share of patients have non-Q-wave infarctions and infarctions in territories other than the left anterior descending artery. Both of these case characteristics are associated with a better prognosis. These trends toward less severe cases might be expected to lead to some improvements in health outcomes and perhaps reductions in costs for AMI care. But it is also possible that the improvements in case characteristics are the result of treatment innovations (e.g., better revascularization treatment leads to lower rates of Q-wave infarcts). Thus, it does not appear that changes in AMI patient characteristics unrelated to heart attack treatment can account for much of the changes in health outcomes and expenditures.

In the current report, we concentrate on treatment changes during the acute "episode" of AMI care. This clinical episode might reasonably be defined to include the 30- or 90-day period following AMI. As the following results show, however, the most dramatic changes in AMI treatment in the United States have occurred in the initial hours and days after the heart attack occurs. In addition to these acute treatments, we also briefly consider changes in treatments designed to prevent first AMIs, post-acute treatments designed to prevent further

complications of ischemic heart disease, and the post-acute treatment of AMI complications. We expect that these trends can be generalized to IHD and plan to carry out this analysis in our further work for this project.

In the United States, treatment for AMI and ischemic heart disease has relied heavily on the "open artery" principle, the straightforward idea that reducing or eliminating blockages in coronary blood vessels supplying the heart will prevent heart damage and complications (e.g., Braunwald, 1996). The gold-standard invasive procedure used to assess artery status is cardiac catheterization, which may be followed by either coronary artery bypass graft surgery (CABG) or percutaneous transluminal coronary angioplasty (PTCA) to bypass or remove areas of blockage detected on catheterization.

Figure 1 shows the rapid growth from 1985 to 1997 in the use of these intensive cardiac procedures within 90 days after AMI in elderly AMI patients in the United States.[1] Less than 15 percent of elderly AMI patients underwent catheterization in 1985, compared with more than 50 percent 12 years later. Bypass surgery rates have more than tripled, from less than 5 percent to over 15 percent. Angioplasty growth has been even more substantial, from virtually no use in 1985 to more than 23 percent of patients in 1997. Figure 2 shows the corresponding trends for nonelderly residents of California for 1991-1996.[2] Figure 2 shows that absolute rates of procedure growth are quite similar to those for the overall U.S. elderly population, *though the rates of procedure use in any given year are much higher in the* nonelderly.[3]

Thus, in recent years, intensive treatment rates have increased at comparably rapid rates in both the elderly and nonelderly. Figure 3 shows that, in recent years, procedure use has increased rapidly even in the older elderly. The Figure shows two broad phases of procedure growth in the elderly. Prior to 1989, although rates were increasing for all demographic groups, they increased relatively more rapidly for the younger elderly (65-69) than for the older elderly (80-89). Since 1989, the absolute rates of procedure growth have been more similar, as procedure growth in the young elderly (already at a high level by 1988) has slowed and procedure growth in the older elderly increased. Increased use of intensive treatments in the older elderly has thus become an increasingly important component of technological change in AMI care in the United States.

Figure 4 shows trends in the use of primary angioplasty, defined as angioplasty within one day of AMI. Though most angioplasty and bypass surgery procedures are performed with the goal of secondary prevention after the patient has been stabilized, typically days to weeks after the initial AMI, primary angioplasty is a method for restoring blood flow to the affected area of the heart *during* an AMI. The goal is to prevent much of the damage associated with the AMI, by preventing the death of the heart muscle affected by the heart attack. The Figure shows that the use of this procedure has been increasing rapidly in the United States in the 1990s. This age gradient in treatment growth contrasts with the trends just described; it is consistent with "new" technologies growing most rapidly initially among younger patients, who generally have fewer comorbidities and complicating conditions.

A related new technology that may be contributing to the rapid recent growth of angioplasty use is intracoronary stents, wire rims that are designed to help keep a blood vessel open after angioplasty. Unfortunately, as with many new technologies, hospital reporting of stent use appears to become reliable in US data only around 1996, several years after the technology was first introduced. Though lacking in years, Figure 5 gives a rough idea of the trends for the elderly and nonelderly, which follow the same patterns as other treatments: the nonelderly gaining access to stents much more rapidly than the elderly. However, a large number of clinical studies (e.g., Bittl, 1996) indicate that stent use has grown even more rapidly than angioplasty use since 1993. Informal interviews with leading US cardiologists suggest that the majority of angioplasty procedures in 1997 probably were done with stents.

Performing angioplasty requires the capability to perform catheterization and revascularization on site. Patients initially admitted to hospitals that do not perform catheterization or revascularization may nonetheless undergo the procedure after transfer. Considerable evidence suggests that when hospitals acquire these technologies, their practices for AMI management become considerably more intensive (McClellan et al., 1994; McClellan and Newhouse, 1997; Cutler and McClellan, 1998). Thus the rapid growth in the use of these cardiac procedures in the United States is a reflection of the substantial growth in the number of U.S. hospitals with catheterization and revascularization capabilities. Figure 6 shows this substantial diffusion of cardiac procedure capabilities to US hospitals over the past decade. The figure shows the proportion of elderly AMI patients who have their first AMI

admission at a hospital that is able to perform catheterization, angioplasty, and bypass surgery respectively. A small component (1 to 2 percent) of the increasing admission rates at hospitals with procedure capabilities is due to greater patient selection of larger, high-volume hospitals that acquired these capabilities very early. But virtually all of the increase shown in Figure 6 is the result of more hospitals investing in the capability of performing these procedures.

Hospital use by AMI patients has not fallen much since 1985 in the United States, in contrast to other countries. The average number of hospital days in the year after AMI declined slightly in the early years following implementation of the DRG system, and has not changed much in more recent years. However, this relatively flat total hospital use reflects a more complex pattern: hospital days in the acute period of AMI treatment (within 30 days) have increased slightly, and hospital days spent in later readmissions have decreased slightly. The former trend appears to be the result of more use of the intensive cardiac procedures soon after AMI. The latter trend appears to reflect the fact that cardiac complications have not increased (see below), and that the length of stay for such readmissions with complications have declined.

Trends in the use of coronary and intensive care units in AMI care have been quite similar to the trends in use of overall hospital days. That is, their use in acute treatment has increased slightly, but later readmissions to CCUs have declined slightly. There is little evidence that diagnostic intensive care unit technologies such as Swan-Ganz catheterization or therapeutic intensive care unit technologies such as intubation for respiratory support have increased over time. However, the use of intraaortic balloon pumps has risen, though these devices are used in only a small share of AMI patients. Thus, the increasing intensity of AMI treatment has not translated into much change in the total amount of time patients are spending in the hospital, and it has consisted primarily of increased use of procedures to monitor and restore blood flow to the heart.

Section II. Comparison of Procedure Utilization Trends Nationwide and in a Major U.S. Research Hospital

As the purpose of this study is ultimately to compare two premier high-tech teaching hospitals, one in the U.S. and one in Japan, we plan to ensure that the U.S. hospital exhibits several of the characteristics commonly associated with a high-tech institution: high procedure volume, high rates of procedure utilization, and early treatment adoption rates. To do this, we will compare data from the teaching hospital with data averaged over all U.S. hospitals. Unlike the data for the study itself, at present we are only able to undertake this comparison using AMI cohorts as the denominator, as opposed to patients who receive procedures associated with ischemic heart disease. While it is our understanding that to establish the relationship between the hospital's treatment trends compared with the U.S. average, we are free to use the data most easily available, we would prefer to do this comparison using the procedure based cohorts required for the hospital data for this study. Unfortunately, at present this will require resources that are not available. We plan to continue this work during the next few days and forward it to Haruko Noguchi to be appended to this report.

In addition, we also will identify differences in the patient characteristics of the teaching hospital versus the overall U.S. population that might influence the procedure trends. For example, from the initial descriptive statistics for the hospital, it seems that a preponderance of the procedures are preformed on white males. We are interested to see whether this trend is consistent throughout the entire country.

Section III. Procedure Utilization Trends in a Major U.S. Research Hospital

We have provided the data tables as requested for a major U.S. teaching hospital with advanced cardiovascular capabilities. While it was possible to create most of the requested variables, the more clinical definitions were beyond the scope of our current dataset. In the future, it may be possible to extend our analysis to include the detailed clinical information on patients that was requested, but we will need to discuss the feasibility of this step in detail with our Japanese collaborators and with researchers working in the teaching hospital before proceeding. We believe that this research represents a valuable step forward in understanding the differences in the ways that top medical facilities function within their national health care

systems. We are appreciative for the opportunity to participate in this study and anticipate that we will be able to collaborate on many more projects in the years to come.

Notes

1. Here and in subsequent figures, rates are adjusted to the 1995 demographic composition of the AMI population. Because the demographic composition of AMI patients in the United States has not changed much during the time period (the average age and proportion female have increased slightly), these adjustments have little effect on the results.
2. Because reliable longitudinal data for California residents is only available beginning in 1991, we are unable to exclude all cases of recurrent AMI in 1991. Approximately 6 percent of patients in subsequent years had prior AMI admissions within one year, and including these patients in our trend analysis did not substantially alter our results. The estimates for 1996 reflect AMI cases in the first three quarters of the year.
3. Comparisons of the California elderly population to the remainder of the US elderly population suggest that the trends for California are likely to be representative of the entire US. In any given year, rates for the California elderly are somewhat higher than for the overall U.S. elderly, but the growth rates are similar.

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Figure 1: 90-Day Intensive Procedure Rates, US Elderly AMI Patients

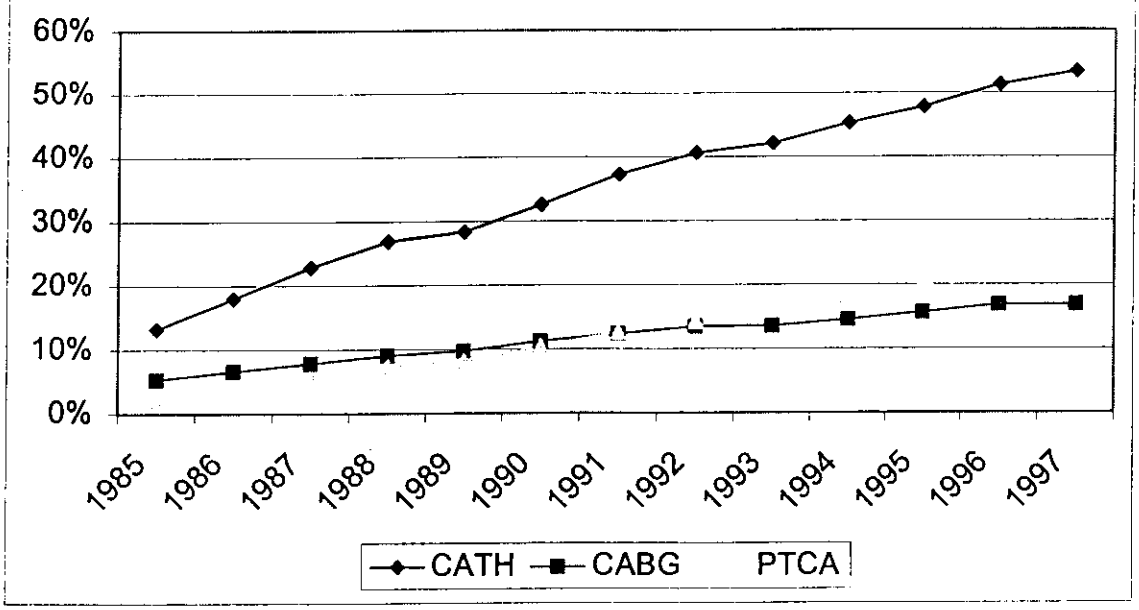


Figure 2: 90-Day Intensive Procedure Rates, California Non-Elderly AMI Patients

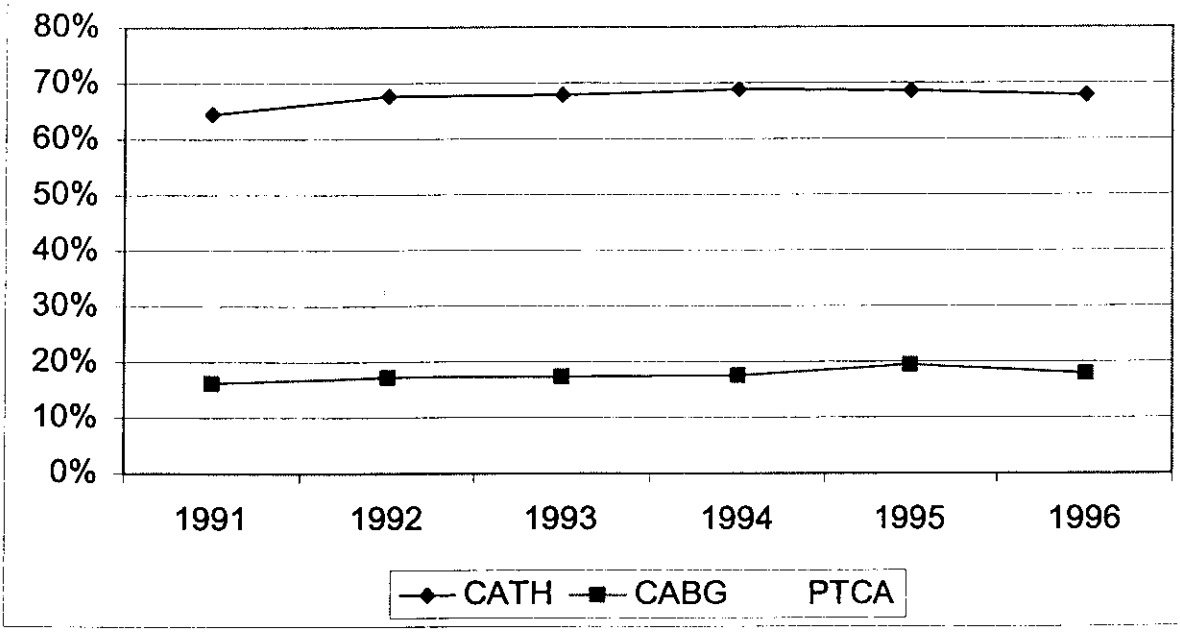


Figure 3: 90-Day Catheterization Rates, Younger and Older US Elderly AMI Patients

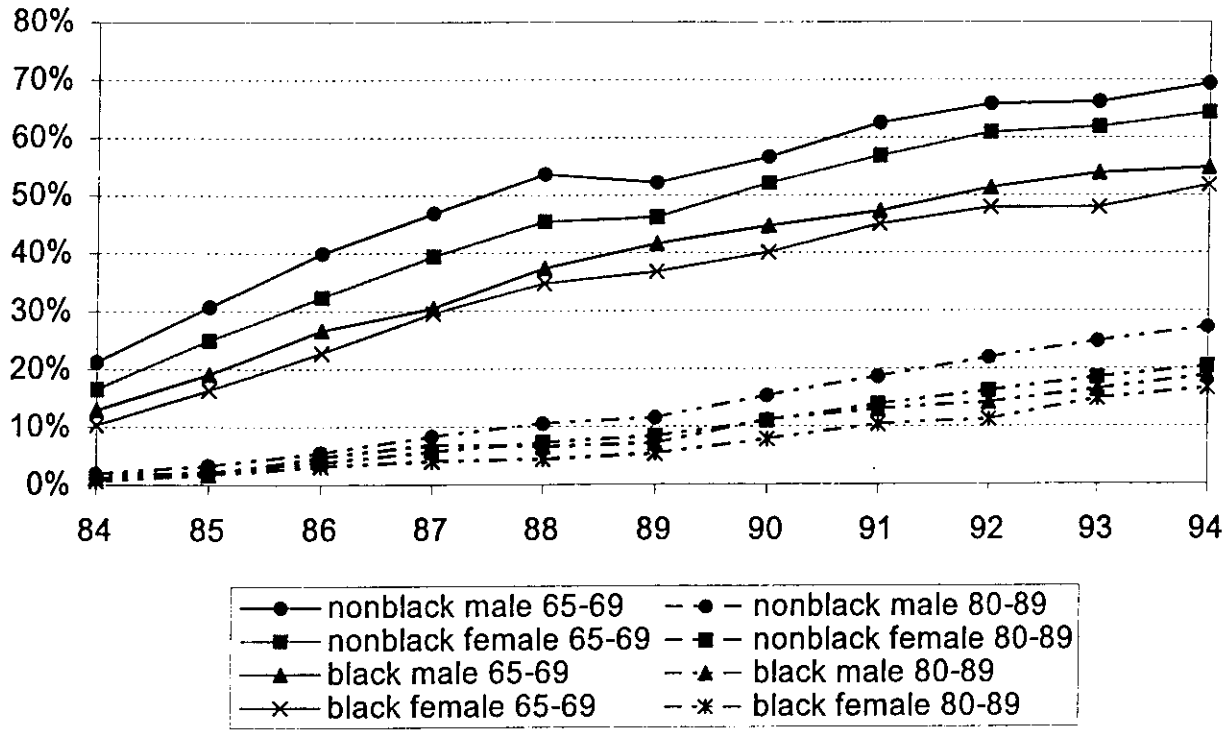


Figure 4: One-Day Angioplasty Rates, US Elderly and California Nonelderly AMI Patients

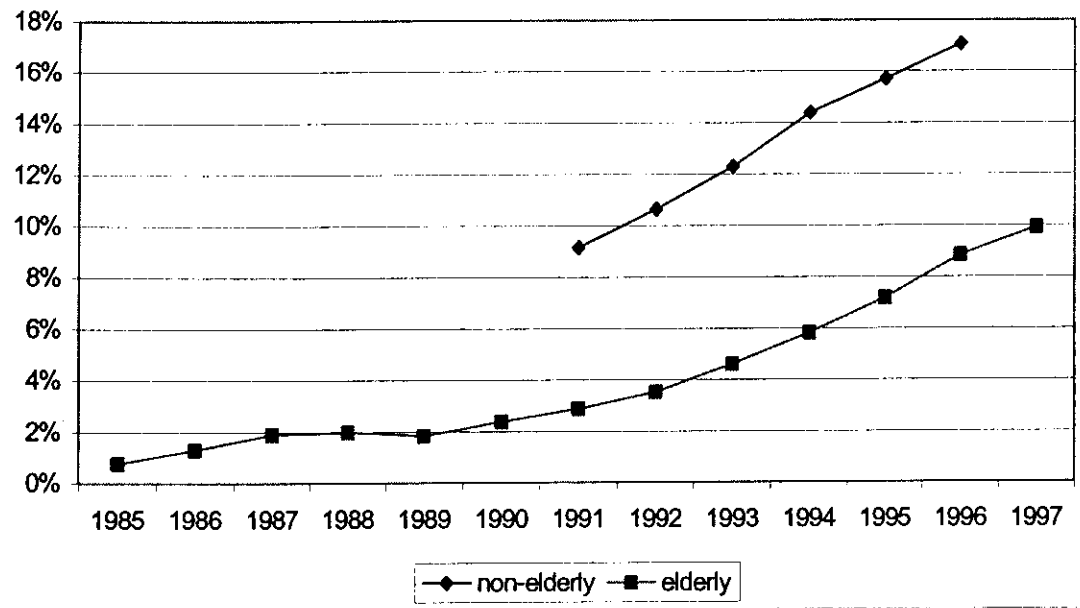


Figure 5: 90-Day Stent Rates, US Elderly and California Nonelderly AMI Patients

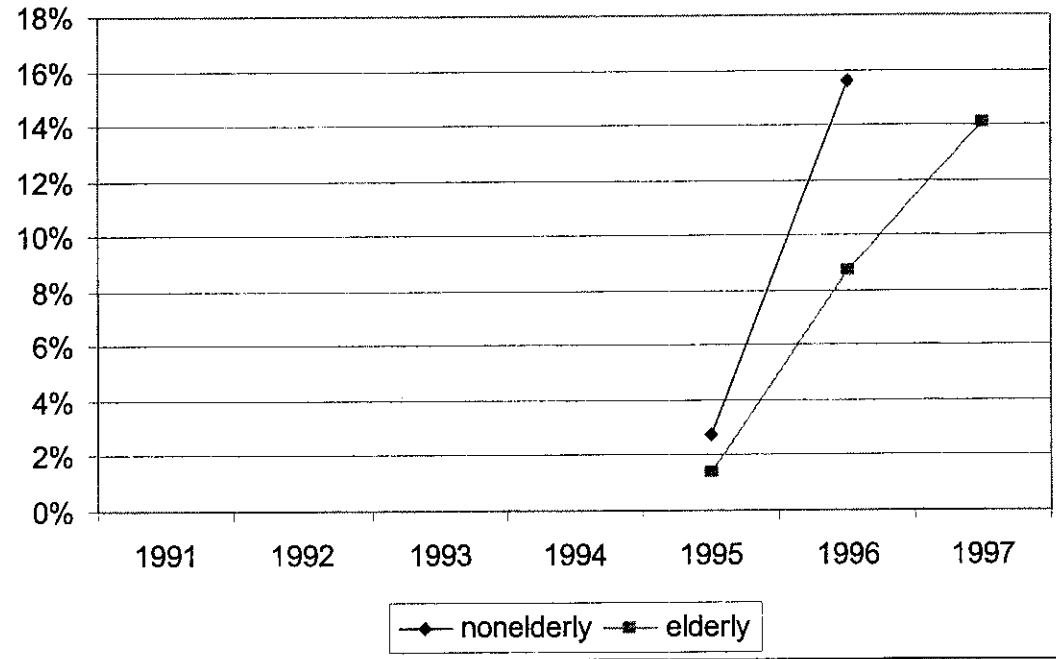
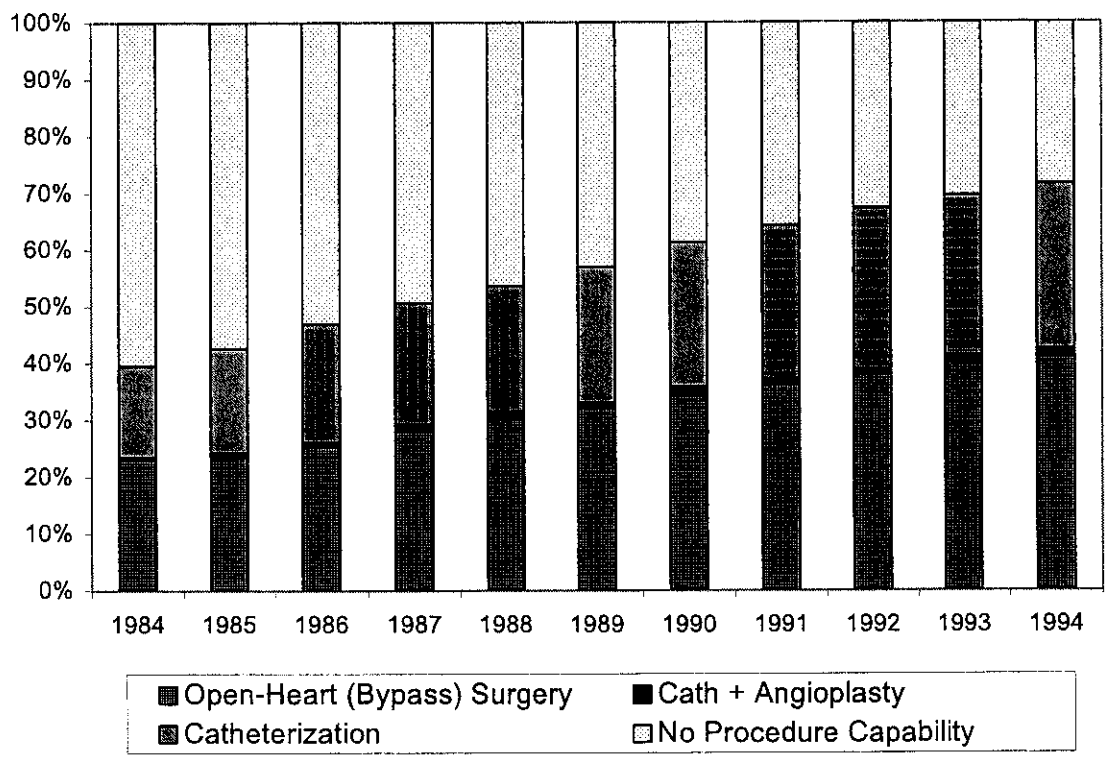


Figure 6: Share of US Elderly AMI Patients by Hospital Types



共同研究３

「所得分配に関する国際比較研究」

（平成 11～13 年度）

「所得分配に関する国際比較研究」平成 12 年度　研究活動報告

本研究は、厚生科学研究・政策科学推進研究（指定研究）「社会保障の改革動向に関する国際共同研究」の一環である「所得分配に関する国際比較研究」として行う。本研究の目的は、厚生労働省『国民生活基礎調査』および『所得再分配調査』を用いて日本の所得分配、低所得層の現状と動向を、国際比較を交えて分析することにある。

平成 12 年度における主な研究活動は以下の通りである。

1. 国内研究者による研究会活動

(1) 研究会参加者

田近栄治（一橋大学教授）・寺崎康博（東京理科大学教授）・小塩隆士（東京学芸大学助教授）・古谷泉生（一橋大学助手）・府川哲夫（国立社会保障・人口問題研究所部長）・阿部彩（同研究所室長）・大石亜希子（同研究所室長）

(2) 平成 12 年度における活動

平成 12 年８月８日　第１回研究会開催

- 研究会の概要説明
- 各委員の研究プラン説明
- 『所得再分配調査』に関する検討項目の議論
- 研究報告：「ライフサイクルからみた不平等度研究の問題点」（大石亜希子）

平成 13 年１月 30 日　第２回研究会開催

- 目的外申請の状況について説明
- 研究報告：「国民年金免除制度の効率性」（阿部彩）

2. ルクセンブルク・インカム・スタディ(LIS)を中心とする国際比較

(1) LIS 夏期セミナーへの参加（平成 12 年7月9日～15日）

LIS 主催の夏期セミナーに阿部彩が参加した。

(2) 「所得分配の国際比較」セミナー開催（平成 13 年3月 21 日）

LIS 及び SyracuseUniversity の Timothy Smeeding 教授を招き、「所得不平等とその政策的インプリケーション」（Income Inequality and its Political Implications）に関する講演会を国立社会保障・人口問題研究所会議室で開催した。

3. 『国民生活基礎調査』および『所得再分配調査』の目的外使用申請

研究会での各委員の研究プランを基に、『国民生活基礎調査』、『所得再分配調査』の目的外使用申請書を作成し、平成 13 年３月 27 日付で正式に申請書を提出した。

ライフサイクルからみた不平等度研究の問題点

大石亜希子
（国立社会保障・人口問題研究所）

1. 本稿の目的

厚生労働省『所得再分配調査結果』によると、日本では税や社会保障による所得再分配効果が大きく、当初所得と再分配所得を比較すると、後者の不平等度は大きく改善している。しかしながら、再分配係数や、ジニ係数など従来用いられてきた不平等度指標は1時点での所得分布状況を示しているにすぎない。経済理論上は、横断面での所得不平等よりも、生涯効用の不平等がより重要と考えられる。

生涯効用は直接的に観察することはできないが、適当な前提条件を置けば、各期の消費の不平等度を観察することによって生涯効用の不平等度に関する考察を行うことができる（岩本(2000)）。大竹・斎藤(1996)はこうした観点から日本について実証分析を行った先駆的な研究であり、不平等度の変化について要因分解もしている。そこでは不平等度の変化の 50%以上を人口構成の変化が占め、高齢化が見かけ上の不平等度の上昇につながっていることを明らかにしている。しかしながら、これに続く大竹・斎藤(1999)、岩本(2000)では不平等度の変化に占める各要因の寄与度にかなりの差があり、とくに岩本(2000)の分析結果と大竹・斎藤(1996)とは、いくつかの点でインプリケーションに重要な相違が生じている。

本研究の目的は、統計的な観点から既存研究の分析結果に相違が生じている理由を検討し、ライフサイクルからみた不平等度の動向を明らかにすることにある。

2. 文献展望

ここでは比較のために主な文献のなかから大竹・斎藤(1996)、大竹・斎藤(1999)、岩本(2000)の３つを限定して取り上げる[1]。

次ページの表に見られるように、これらの既存研究は、以下の４点で重要なインプリケーションの違いが生じている。その第 1 は、不平等度の変化に及ぼす高齢化のインパクトである。大竹・斎藤(1996)では、高齢化（年齢別人口効果）は不平等度変化の 51%を占め、最も大きな要因となっている。これと比較して、岩本(2000)では消費・所得のいずれについても、高齢化の寄与度ははるかに小さい。第 2 は、50 歳以降の不平等度の動向である。大竹・斎藤(1996)では 50 歳代以降、不平等度は横ばいになる傾向が観察されているが、岩本(2000)では 50 歳以降も不平等度は拡大する。第 3 は、所得に関するコーホート効果の有無である。大竹・斎藤(1996)では、所得についてコーホート効果が観察されなかったにもかかわらず消費についてはコーホート効果が観察されることから、消費の不平等度は稼働所得

よりも遺産・贈与等の世代間所得移転によってもたらされているのではないかと解釈している。一方、岩本(2000)では消費・所得ともにコーホート効果が観察されており、所得不平等の進展が消費の不平等の進展に寄与する一因となっている可能性を示唆している。第 4 は、所得不平等度の進展の規模である。『国民生活基礎調査』を用いて 1989 年から 1995 年の変化をとらえた岩本(2000)では所得不平等度の変化幅は10.6%ポイントであるが、『所得再分配調査』を使用して 1981 年と 1993 年を比較した大竹・斎藤(1999)では、不平等度の変化幅は19.3%ポイントと大きい。

次節以降では、これらの論点について統計的な観点から検討する。

主な既存研究の比較

	大竹・斎藤(1996)	大竹・斎藤(1999)	岩本(2000)
調査・年	『全国消費実態調査』 1979、84、89 年	『所得再分配調査』 1981、93 年	『国民生活基礎調査』 1989～95 年
対象世帯	２人以上非農家世帯	２人以上世帯(?)	総世帯
	消費の不平等度は 40 歳代で急速に高まるが**50 歳代以降は横ばい**	n.a.	消費の不平等度は 40 歳代で急速に高まり、**50 歳代以降も上昇**
	所得不平等度は年齢とともになだらかに上昇	所得不平等度は年齢とともになだらかに上昇	所得不平等度は年齢とともになだらかに上昇
コーホート効果（消費）	若いコーホートほど、同年齢内での消費の不平等度が高まる	n.a.	若いコーホートほど、消費の不平等度が高い
コーホート効果（所得）	**観察されず**	n.a.	**若いコーホートほど所得の不平等度が高い**
不平等度の変化	消費：4.1	所得：19.3	消費：6.1、所得：10.6
年齢別人口効果	消費：51%	所得：24%	消費:14%、所得:19%
年齢階層内効果	消費：33%	所得：61%	消費:86%、所得:55%
年齢階層間効果	消費：10%	所得：11%	消費： 0%、所得:16%
人口高齢化の評価	不平等度拡大の主因	寄与はやや小さい	寄与は小さい
コーホート効果の評価	コーホート効果は消費にだけ観察されるので、遺産等による世代間所得移転の比重が大きくなってきた可能性	n.a.	消費不平等のコーホート効果は、所得不平等のコーホート効果が影響している可能性