Using public transportation is important for people living in urban communities. However, a previous study suggested that approximately one-third of sub-acute rehabilitation hospitals in Japan could not practice using public transportation. Here we aimed to quantitatively and qualitatively examine why these hospitals did not practice. Managerial occupational therapists working in sub-acute rehabilitation hospitals in urban Japan were enrolled. Using a postal survey, some questions regarding the practice of using public transportation were asked. Two hundred and twenty-eight responses were analyzed. The frequency of practicing the use of public transportation was weakly correlated with the hospital bed number, therapist number, and average therapy duration. The qualitative data concerning reasons for not practicing were integrated into four categories: barriers of social system, specific factors of the task, existence of complementary method, and lack of necessity and awareness. It may be important to improve these inhibiting factors for providing appropriate occupational therapy.

Keywords: practice, public transportation, sub-acute rehabilitation hospital
are elderly and easily get housebound after handicapped. Moreover, according to our previous research, even if there are many inpatients hoping to use public transportation after discharge and are approved to use it, 29.4% of hospitals cannot practice it [12]. Other studies also indicated that many patients with physical disability who lived at home wished to get out more often [13–14]. Although aging of society has been progressing worldwide, particularly in Japan, studies have revealed undesirable conditions concerning the supply and demand of occupational therapy needs.

Barriers to outdoor mobility for stroke patients have been studied. A previous qualitative study found that the barriers were fear of falling or injury, lack of confidence, and inadequate information about transport services [14]. To reduce these barriers it could be vital to practice riding public transportation as a rehabilitation practice. Why can occupational therapists in some sub-acute rehabilitation wards not practice using public transportation? Investigation of the reasons would give us some meaningful information for adjusting appropriate occupational therapy practices. Moreover, this research could be applied to urban areas of the world to provide knowledge about rehabilitation of public transportation.

The purpose of this study was to quantitatively and qualitatively examine why occupational therapists working in sub-acute rehabilitation wards cannot practice using public transportation in a Japanese urban community. The quantitative method was used to examine correlations between the extent of the practice of using public transportation and the characteristics of sub-acute rehabilitation wards. Furthermore, the qualitative method was used to ask occupational therapists about reasons for not practicing using public transportation.

Methods

Subjects

Using purposive sampling, subjects in the study included managers of occupational therapy departments in hospitals that were selected from a list of sub-acute rehabilitation hospitals in Japan, which were made by the Kaifukuki Rehabilitation Ward Association [15]. The subjects were all associated with hospitals that had sub-acute rehabilitation wards in the regions and cities with a greater than 5% utilization rate of railways during holidays on investigation of the national urban traffic condition [16]. Based on the selection criteria, 453 facilities in the metropolitan region including the Kinki region and Chukyo region as well as Sapporo, Sendai, Hiroshima, and Fukuoka city were selected for the investigation.

A postal questionnaire was sent to the manager of the occupational therapy department in each facility. A document attached to the postal questionnaire provided information about the research purpose, research method, and protection of personal information. The explanation in this document was carefully written to not affect question responses. The questionnaire was filled out anonymously. Returning the questionnaire was regarded as obtaining respondent’s consent for participation in the study. The study was approved by the ethics committee at IMS Itabashi Rehabilitation Hospital (approval number: A-006).

Recruitment and data collection

The data collection method was a postal survey with a self-administered questionnaire. The reply deadline was three weeks later. After this deadline had passed, a letter of appreciation including a reminder of their response was sent to all of the subjects and the deadline was extended for two more weeks.

As a precaution, before answering the questionnaire an operational definition of the following terms was explained. In this study, public transportation meant railway and bus and excluded taxies. Practice of using public transportation was defined as practice riding transportation outside the hospital during rehabilitation or an assessment.

Information about the respondents, such as years of clinical experience and managerial position, was gathered. General information regarding the facility included the number of hospital beds, number of therapists (occupational therapists, physical therapists, and speech therapists), average therapy duration for a patient per day, and distance from the hospital to the nearest station and bus stop.

Regarding practice of using public transportation, a question about the frequency was asked. The question was, “How many patients practice using public transportation during rehabilitation, among those who are approved to use it after discharge?” The response was given on a 5-point scale: all of the patients, majority of patients, half of the patients, few patients, and none of the patients. If few patients and none of the patients were answered, an open-ended question was asked regarding the reason for not practicing it. If the practice was not performed, this question was sure to be answered.

Data analysis

Descriptive statistics were calculated for the characteristics of respondents and their facility. Spearman’s rank correlation coefficient was used to examine the relationship between the frequency of practice and other variables, including number of hospital beds, number of staff, average therapy duration, and distance between the
hospital and station and bus stop. SPSS 22.0 was used for statistical analysis. The level of significance was set at 0.05.

A qualitative analysis was performed for descriptive data from the open-ended question regarding the reasons for not practicing the use of public transportation using the KJ method [17]. First, the answers that were impossible to understand or misunderstand were examined, for example “can you apply health insurance for payment of rehabilitation outside a hospital such as using public transportation? (counter-question)” These answers were excluded from the analysis. The answers were split into labels so that each label had only one meaning for a question. The labels were gathered by their similarity to make the first-level categories and each of the categories was named so the meaning of the category was represented. Furthermore, following similarity of the categories the second-level categories were made. The same procedure was repeated until the forth-level categories were finally made. To ensure consistency in the analysis, two researchers who had experience with qualitative studies repeatedly confirmed until no further revisions were found. They were occupational therapists and co-authors who had clinical experience more than ten years.

Results

Two hundred and thirty subjects replied. Two of the returned questionnaires had many omissions and were excluded. Therefore, 228 responses were used for the analysis (response rate, 50.3%).

The number and ratio of participants is shown in Table 1. Information regarding the respondents and their facilities is shown in Table 2. Some responses were excluded for each question in the analysis because no answer or an inappropriate answer was given. The average and standard deviation of years of clinical experience was 10.9 years ($SD = 5.7$) and 81.5% of the respondents held a managerial position. The average number of hospital beds was 70.5 ($SD = 54.8$). The average therapy duration for a patient per day was 127.5 min ($SD = 32.5$; including physical therapy and speech therapy). The average distance from the hospital to the station was 2.0 km ($SD = 2.2$) and to the bus stop was 0.44 km ($SD = 0.51$).

Results of the frequency of practice using public transportation are shown in the bottom right of Table 2. Correlation coefficients between the frequency of practice and other variables are provided in Table 3. Correlation coefficients between the frequency of practice are presented with the number of hospital beds ($r = .25, p < .001$), number of therapists ($r = .28, p < .001$), and average therapy duration ($r = .18, p = .005$).

**Table 1.** Characteristics of respondents.

| Years of clinical experience | n   | ratio (%) |
|-----------------------------|-----|----------|
| 1−5 y                       | 25  | 11.2     |
| 6−10 y                      | 103 | 46.2     |
| 11−15 y                     | 61  | 27.3     |
| ≥ 16 y                      | 34  | 15.3     |
| No answer                   | 5   |          |

| Managerial position           | n   | ratio (%) |
|-------------------------------|-----|----------|
| Vice-principal, general manager, assistant manager | 4 | 2.1 |
| Section manager, chief therapist, senior manager    | 36 | 19.1 |
| Section chief, chief clerk          | 111 | 58.7 |
| Other managerial position         | 3  | 1.6     |
| Staff (non-managerial position)   | 35 | 18.5    |
| No answer                         | 39 |         |

Qualitative analysis of reasons for not practicing public transportation use

Eighty-three respondents provided reasons for not practicing public transportation use with the narrative form. From these answers 239 labels were extracted. The average and standard deviation of the number of labels per respondent was 2.8 ± 1.5 labels (range: 1−7 labels). Italics in the following results are quotes of respondents’ answers. The numbers in parentheses correspond to the label number.

The data were integrated into 4 categories with the forth-level category as the highest category: 1) barriers of social system (37 labels), 2) specific factors of the task (89 labels), 3) existence of a complementary method (44 labels), and 4) lack of necessity and awareness (69 labels). Based on these categories (Fig. 1), excluding 4) lack of necessity and awareness, the reasons for not practicing public transportation use were 1) barriers of social system and 2) specific factors of the task. These two categories have given rise to 3) existence of complementary method.

1) Barriers of social system

Twenty-nine respondents (34.9%) felt that there were barriers of social system preventing therapists from the practice. This category comprised two lower categories (third-level categories): A) not permitted by hospital administrations (13 labels) and B) imperfections in the social system (24 labels).

A) Not permitted by hospital administrations

Some occupational therapists wanted to practice outside their hospitals, but they had some problems with
hospital administers and hospital policy, for example, “hospital administers do not permit therapists to practice outside the hospital (17d)” and “as our hospital’s policy, going out with patients is not preferred. (.62a)” They were restricted by the administration in the hospital.

B) Imperfections in the social system

In some cases rehabilitation outside the hospital was restricted because it is not profitable owing to the lack of health insurance coverage, for instance, “because rehabilitation outside the hospital is not covered by health insurance (3a)” and “practice of public transportation give little profit (23c).”

The other barrier was problems of guarantee if any accidents would be happened. This category was extracted from the following representative label, “if any accidents like falling and medical emergency occurred, it will be difficult for our hospital to guarantee patients. (.50d)” The restriction was caused by problems in our social system regarding insurance and guarantee system.

2) Specific factors of the task

Fifty respondents (60.2%) pointed out that there were specific factors involved in practicing public transportation use. This category had four third-level categories: C) high risk of practice (30 labels), D) problems with environment around the hospital (19 labels), E) problems of manpower and time (28 labels), and F) Not Table 2. Facility information and frequency of practice.

| Location                          | n   | ratio (%) | Distance from hospital to the nearest station | n   | ratio (%) |
|-----------------------------------|-----|-----------|----------------------------------------------|-----|-----------|
| Metropolitan region               | 91  | 40.5      | 0.0–0.9 km                                    | 65  | 29.7      |
| Kinki region                      | 72  | 32.0      | 1.0–1.9 km                                    | 63  | 28.8      |
| Chukyo region                     | 25  | 11.1      | 2.0–2.9 km                                    | 43  | 19.6      |
| Local central cities (Sapporo, Sendai, Hiroshima and Fukuoka city) | 37  | 16.4      | 3.0 km+                                       | 48  | 21.9      |
| No answer                         | 3   |           |                                              | 9   |           |

| Number of hospital beds           |     |           | Distance from hospital to the nearest bus stop |     |           |
| 1–49 beds                         | 98  | 44.1      | 0.00–0.19 km                                   | 91  | 42.5      |
| 50–99 beds                        | 78  | 35.1      | 0.20–0.39 km                                   | 48  | 22.4      |
| 100–149 beds                      | 27  | 12.2      | 0.40–0.59 km                                   | 47  | 22.0      |
| 150+ beds                         | 19  | 8.6       | 0.60+ km                                       | 28  | 13.1      |
| No answer                         | 6   |           |                                              | 14  |           |

| Number of therapists*             |     |           | The frequency of practice using public transportation |     |           |
| 0–19 therapists                   | 83  | 37.9      | All                                             | 34  | 15.2      |
| 20–39 therapists                  | 72  | 32.9      | Almost                                          | 67  | 30.0      |
| 40–59 therapists                  | 24  | 11.0      | Half                                           | 26  | 11.7      |
| 60–79 therapists                  | 43  | 18.2      | Seldom                                         | 55  | 24.7      |
| No answer                         | 6   |           | None                                           | 41  | 18.4      |

| Average therapy duration          |     |           | Inappropriate answer                            | 1   |           |
| 0.00–0.99 hours                   | 10  | 5.1       | No answer                                      | 4   |           |
| 1.00–1.99 hours                   | 442 | 2.5       |                                                |     |           |
| 2.00–2.99 hours                   | 129 | 65.8      |                                                |     |           |
| 3.00 hours*                       | 13  | 6.6       |                                                |     |           |
| Inappropriate answer              | 4   |           |                                                |     |           |
| No answer                         | 28  |           |                                                |     |           |

Table 3. Correlation coefficients between frequency of practice and other variables.

| frequency of practice | r    | p     |
|-----------------------|------|-------|
| Number of hospital beds (n = 217) | .25  | < .001 |
| Number of therapists* (n = 214) | .28  | < .001 |
| Number of occupational therapists (n = 215) | .22  | < .001 |
| Number of physical therapists (n = 214) | .21  | < .001 |
| Number of speech therapists (n = 206) | .21  | < .001 |
| Average therapy duration (n = 182) | .18  | ‘.005 |
| Distance to the nearest station (n = 212) | .05  | ‘.488 |
| Distance to the nearest bus stop (n = 204) | −.05 | ‘.468 |

* Number of therapists is the sum of occupational therapists, physical therapists, and speech therapists.
established necessary manuals and rules (12 labels).

**C) High risk of practice**

This category included high risk of traffic accidents and falling, emergency for patients outside, and difficult to cope with accidents and emergencies away from the hospital. A respondent suggested that “we are worry about how to cope with an emergency away from our hospital. It is would be difficult (50c).” Therefore, many therapists recognized that the practice had a lot higher risk factors than those in the hospital.

**D) Problems of environment around hospital**

Some occupational therapists felt that there were barriers regarding the environment around the hospital, such as undeveloped public transportation, long distance from station or bus stop, and danger around the hospital. For example “we spend a lot of time waiting for a train because only one train comes every hour (55c)” and “the pavement to the station is narrow and bumpy around our hospital (19c).” Therefore, the environment around the hospital affected whether practice was performed or not.

**E) Problems of manpower and time**

It took extensive manpower and time to practice using transportation in several hospitals. Examples of their responses were “impossible to come back to the hospital after practice on the train within the given rehabilitation time (17a),” “we have more number of patients than therapists (30b).” Using transportation takes more time than usual rehabilitation in their hospital. Moreover, a shortage of manpower restricted the practice of using transportation.

**F) Not established manuals and rules**

Some hospitals have not made necessary manuals and rules such as practice protocol, payment for the cost of transportation, and countermeasures for accidents or emergencies outside. The representative opinions were, “in our hospital, rules for the practice haven’t been established yet (81a)” and “there is a problem: who will pay for the expense of using transportation? Sometimes therapists pay the fee by themselves (78g).”

### 3) Existence of complementary method

Forty-four respondents (41.0%) mentioned using a complimentary method as the reason for not practicing public transportation use. Complementary methods included two lower categories: G) applying supplementary method (35 labels) and H) practice with simulated method (9 labels).

**G) Applying supplementary method**

Instead of the actual practice by therapists a supplementary method was used. The representative labels were, “when an inpatient returns home for a while, we ask his or her family to use the transportation that will be used after discharge and to assess their behavior
with a checklist (19f)” and “after discharge, we ask home-visiting therapists to follow-up with them (63b).” The therapists made use of the patients’ family, other service, or other professional if they had not given their patient practice.

H) Practice with simulated method
Without riding a train or a bus, simulated activities are also used, such as “in the rehabilitation room, we assess a patient using steps as high as those of the bus entrance (55e)” and “we took a patient to the nearest station to pretend to buy a ticket as a practice (12e).” Patients did not actually ride public transportation but the therapist simulated similar conditions for their patients.

4) Lack of necessity and awareness
Thirty-nine respondents (47.0%) answered that practice was not necessary and it had a lower priority than other necessary things. In this category, therapists, patients and their families thought that practice was not necessary: I) few patients need practice using public transportation (64 labels) and J) negative attitude toward practice (5 labels).

I) Few patients need practice using public transportation
Patients did not need to practice because “our patients are in such a bad medical condition that they cannot go out and they are old aged (59b)” and “driving a car is the main form of outdoor mobility so in this area it is more necessary than using public transportation (53a).” The demand for public transportation depended on the area. In a rural area, driving a car is a more common form of outdoor mobility compared with using public transportation.

J) Negative attitude toward practice
Some answers insisted that therapists, patients, and families had a negative attitude toward the practice. Some examples were, “we have never thought practicing use of public transportation in our hospital (26e)” and “patients and families refused the suggestion to practice from their therapists. (71c).”

Discussion
We studied the reasons for not practicing the use of public transportation using a postal survey. Interviews are often used in qualitative studies as a study method [18]. Alternatively, few researches use a postal survey. While thinking of reasons for not practicing the use of public transportation before the present study, we hypothesized various reasons that depended on the area and site in which the hospitals were located. Therefore, the survey was not performed for a widespread area in major urban places of Japan. Moreover, a postal survey is one directional communication and can sometimes cause misunderstanding. In the present study, we omitted data if it was difficult to interpret the meaning. However, we believe that the more than 200 labels in this study are enough to analyze reasons not to practice.

The result suggested that one of the reasons was a barrier in hospital administration and social system policies such as health insurance and guarantee for accidents outside of the hospital. In Japan, it is unclear whether we can or cannot apply health insurance to occupational therapy cost when it is performed outside of the hospital site. It could have a dramatic effect on the judgment of occupational therapists for performing the practice. To resolve these issues it would be necessary to clarify the evidence of practice. Logan et al. [9] reported a significant effect of home-based occupational therapy for people with stroke for the purpose of outdoor mobility. Alternatively, there has been no evidence regarding practicing the use of public transportation for inpatients. Therefore, it would be important to verify the practice effect and to appeal the necessity of the practice to provide appropriate occupational therapy corresponding to patient needs.

Some factors in the hospital affected the pros and cons of practice. For example, the number of therapists and number of hospital beds was correlated with the extent of practice. These results suggest that a large population of therapists and large hospitals can easily make time and establish a manual for practice. Hiring more therapists and making a manual is not easy but is required for practicing the use of public transportation.

Hospital environment was one of the reasons for not practicing. A previous study suggested that the perceived neighborhood environment affected the amount of walking in the elderly [19]. Infrequent public transportation, such as one train in one hour, was also one of the barriers. Ogawa et al. [12] found that making courses for the practice helped to shorten the duration of the practice. Therefore, setting up the courses and departure time would solve the problem, particularly in Japan as most of the trains operate on time. Considering that practicing actual condition leads to reacquired occupations, it would be essential to remove these barriers.

In cases where therapists could not practice using public transportation, simulation of the practice close to “real life” in the hospital was used instead of actual situation. Doig, Fleming, Cornwell and Kuipers [20] reported that rehabilitation in an actual situation such as patients’ home was more satisfying and effective from a
quantitative study analyzing patient interviews. Recently, home-based and community rehabilitation has been examined because it may effectively enhance community reintegration [21−23]. Therefore, actually practicing using public transportation would be close to real life, for example at home, and more effective for patients to learn the motion and to be motivated. However, it would be necessary to show the effectiveness of actually using public transportation compared with the simulated practice.

The results of this study are not always generalizable because all of the subjects worked on sub-acute rehabilitation hospital in urban community of Japan. Therefore, future studies may seek to explore the present situation in other setting such as an acute hospital and home-visiting rehabilitation. We found many reasons for lack of practice; however, we also have limitations of this study that need to be addressed, for example, the social system and difference in environment surrounding public transportation, which depends on the country and area, e.g., urban or rural [5]. In some countries and areas, driving a car would be more important than using public transportation [24, 25]. Alternatively, 28.7% of people use public transportation for outdoor mobility in the metropolitan area of Japan [16]. Therefore, in these regions, the quality of life of people with disabilities who could not use these public transportations would be affected. The goal of rehabilitation has been described to be to “maximize the patient’s role fulfillment and his independence in his environment, all with the limitations imposed by the underlying pathology and impairments and by the availability of resources” [26]. Occupational therapists should resolve the inhibiting factors of the practice and facilitate the use of public transportation for the elderly and those with a disability to acquire their important occupations.

**Conflicts of interest**

The author declares no conflict of interest.

**Acknowledgments**: We acknowledge the significant support for this study by Atsushi Komoto, Shinichi Aoyama and occupational therapists in IMS Itabashi Rehabilitation Hospital.

**References**

[1] Pinquart M, Sörensen S. Influences on loneliness in older adults: A meta-analysis. Basic Appl Soc Psych. 2001; 23(4): 245−66.

[2] Cutler SJ. Transportation and changes in life satisfaction. Gerontologist. 1975; 15(2): 155−9.

[3] Rantakokko M, Portegijs E, Viljanen A, Iwarsson S, Rantanen T. Life-space mobility and quality of life in community-dwelling older people. J Am Geriatr Soc. 2013; 61(10): 1830−2.

[4] Mackey DC, Cauley JA, Barrett-Connor E, Schousboe JT, Cawthon PM, Cummings SR. Life-space mobility and mortality in older men: A prospective cohort study. J Am Geriatr Soc. 2014; 62(7): 1−9.

[5] Therrien FH, Desrosiers J. Participation of metropolitan, urban and rural community-dwelling older adults. Arch Gerontol Geriatr. 2010; 51(3): e52−6.

[6] Peel C, Baker PS, Roth DL, Brown CJ, Brodner EV, Allman RM. Assessing mobility in older adults: The UAB study of aging life-space assessment. Phys Ther. 2005; 85(10): 1008−79.

[7] Dahan-Oliel N, Mazer B, Gelinis I, Dobbs B, Lefivre H. Transportation use in community-dwelling older adults: Association with participation and leisure activities. Can J Aging. 2010; 29(4): 491−502. doi: 10.1017/S0714980810000516

[8] Gama EL, Damian J, del Molino JP, Lopez MR, Perez ML, Iglesias FG. Association of individual activities of daily living with self-rated health in older people. Age Ageing. 2000; 29(3): 267−70. doi: 10.1093/ageing/29.3.267

[9] Logan PA, Gladman JRF, Avery A, Walker MF, Dyas J, Groom L. Randomised controlled trial of an occupational therapy intervention to increase outdoor mobility after stroke. BMJ. 2004b; 329(7479): 1372−4.

[10] Wendel K, Stahl A, Risberg J, Pessah-Rasmussen H, Iwarsson S. Post-stroke functional limitations and changes in use of mode of transport. Scand J Occup Ther. 2010; 17(2): 162−74.

[11] Kaifukuki Rehabilitation Ward Association. Investigation report of present condition and task in sub-acute rehabilitation units. (in Japanese) Tokyo: Kaifukuki Rehabilitation Ward Association; 2013a, February.

[12] Ogawa M, Sawada T, Toyotomi S, Hayashi Y, Watanabe S. A survey of training conditions for the use of public transportation in a recovery rehabilitation unit. (in Japanese) Japanese Occupational Therapy Research. 2014; 33(4): 292−303.

[13] Logan PA, Gladman JRF, Radford KA. The use of transport by stroke patients. Br J Occup Ther. 2001; 64(5): 261−4.

[14] Logan PA, Dyas J, Gladman JRF. Using an interview study of transport use by people who have had a stroke to inform rehabilitation. Clin Rehabil. 2004a; 18(6): 703−8.

[15] Kaifukuki Rehabilitation Ward Association. A list of member wards. (in Japanese) 2013b, June. [cited 2013 June 6] Available from: http://www.rehabili.jp/ward_list.html

[16] Japanese Ministry of Land, Infrastructure, Transport and Tourism. (in Japanese) 2012. Movement of people in community; Investigation of national urban traffic condition in 2010. [cited 2014 June 13] Available from: http://www.mlit.go.jp/common/001032141.pdf
[17] Raymond H. The KJ method: A technique for analyzing data derived from Japanese ethnology. Hum Organ. 1997; 56(2): 233–7.

[18] Richards L, Morse JM. Readme first for a user’s guide to qualitative method. California: Sage publications; 2007.

[19] Inoue S, Obys Y, Odagiri Y, Takamiya T, Kamada M, Nakaya T. Perceived neighborhood environment and walking for specific purposes among elderly Japanese. J Epidemiol. 2011; 21(6): 480–90.

[20] Doig E, Fleming J, Cornwell P, Kuipers P. Comparing the experience of outpatient therapy in home and day hospital settings after traumatic brain injury: patient, significant other and therapist perspectives. Disabil Rehabil. 2011; 33(13–4): 1203–14.

[21] Ponsford J, Harrington H, Olver J, Roper M. Evaluation of a community-based model of rehabilitation following traumatic brain injury. Neuropsychol Rehabil. 2006; 16(3): 315–28.

[22] von Koch L, Wottrich AW, Holmqvist LW. Rehabilitation in the home versus the hospital: the importance of context. Disabil Rehabil. 1998; 20(10): 367–72.

[23] Mayo NE, Wood-Dauphinee S, Cote R, Gayton D, Carlton J, Buttery J, Tabllyn R. There’s no place like home: An evaluation of early supported discharge for stroke. Stroke. 2000; 31(5): 1016–23.

[24] Finestone HM, Marshall SC, Rozenberg D, Moussa RC, Hunt L, Greene-Finestone LS. Differences between post-stroke drivers and non-drivers: demographic characteristics, medical status, and transportation use. Am J Phys Med Rehabil. 2007; 88(11): 904–22.

[25] Glasgow N. Older Americans’ patterns of driving and using other transportation. Rural America. 2000; 15(3): 26–30.

[26] Wade D. Stroke: rehabilitation and long-term care. Lancet. 1992; 339(8796): 791–3.