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Giving up on Health Care for Economic Reasons: an Econometric Approach

Caroline Després (Irdes), Paul Dourgnon^a (Irdes ; Paris-Dauphine University, Leda-Legos),
Romain Fantin (Irdes), Florence Jusot (Paris-Dauphine University, Leda-Legos ; Irdes)

Despite extensive public health insurance coverage, France faces social inequalities in access and use of health care services. In this research we study self assessed unmet needs (SUN) as an alternative approach to standard measures of health consumption, such as expense or number of visits, so as to cast new light on social inequalities in access to health care services issues.

SUN is measured in a short questionnaire on having given up on health care for financial reasons within the last twelve months. The questionnaire is introduced in the ESPS survey, a French general population survey on health, health care and insurance. We focus on SUN for financial reasons since French ambulatory care is grounded on private practice, fee for service, some of it unregulated, and upfront payment.

In 2008, 15.4% of the adult population declared having given up on medical care for financial reasons over the last twelve months. Economic barriers to accessing care are essentially concentrated on dental care (10% declared having foregone dental care for financial reasons) and to a lesser extent, eyewear (4.1%) and physician visits (3.4%, GPs and specialists altogether).

These difficulties in accessing care are partially explained by limits in Insurance coverage. Indeed, the lack of complementary health insurance (CHI) coverage appears to reduce significantly access to health services whereas means tested CHI (CMU-C) facilities access. This study also brings to light explanatory factors related to life course episodes, in particular past and present socio-economic conditions and perspectives. Our study also confirms that prices do matter. The level of the fees in the unregulated ambulatory sector (in 2008, 40.7% of specialists and 8.5% of GPs belong to the so-called unregulated "secteur 2") has an impact on access to health care as measured through SUN.

A socio-anthropological study published simultaneously by the authors (Després *et al.*, 2011) supports the use of SUN data in quantitative multivariate approaches to study access to health care services.

France, as the majority of European countries, faces social inequalities in the use of health care services. Health care utilization rates and numbers of visits differ according to socioeconomic

category even after controlling for age, gender and health status (Couffinhal *et al.*, 2004; Jusot, 2011). Financial access appears indeed an issue in France: in 2008, 15.4% of individuals aged 18 and

over declared having foregone care for financial reasons over the last twelve months.

^a Corresponding author: dourgnon@irdes.fr

The use of self assessed unmet needs (SUN) as an indicator of financial accessibility of health care services has progressively emerged in the public and political spheres. Biannual Statistics on SUN produced from the Health, Health Care and Insurance survey (ESPS)¹ [Sources and Methods insert] questionnaires since 1992 have contributed to making this concept a public policy evaluation indicator (Boulard, 1999)². It is following this logic that it was chosen as one of the CMU-C³ performance monitoring indicators⁴ in the Social Security Funding Act Draft⁵). This indicator stands as the difference in the rate of SUN for economic reasons between beneficiaries of the State-funded means tested CMU-C and those covered by a private complementary health insurance (CHI).

From a scientific point of view, the relatively unexplored concept of SUN aims at

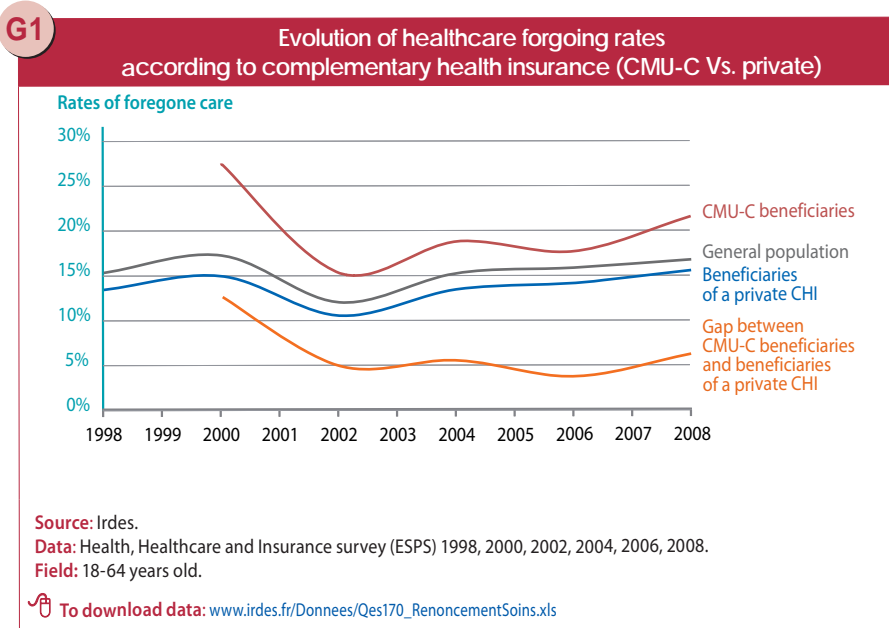
¹ Enquête santé protection sociale.

² « (...) Whereas from 1946, the preamble to the Constitution proclaims that 'the Nation guarantees health protection to all', in 1996, one out of four French people self-reported having renounced medical treatment at least once during the year for financial reasons. In the face of this, 'instituting a universal health insurance coverage must permit the transition from the attested legal right to health to the actually exercised right to access healthcare.'

³ The CMU-C is a free-of-charge and means-tested CHI for low-income individuals (Couverture maladie universelle complémentaire).

⁴ As part of quality and efficiency programs (Programmes de qualité et d'efficience, PQE).

⁵ PLFSS : Projet de loi de financement de la Sécurité sociale.



identifying medically justified but unmet health care needs. These unmet needs can be measured either from the rate of health care service utilization or self assessed unmet needs, e.g. from questions on giving up on health care. The self assessment of unmet needs provides complementary information to the objective health service utilization rates, and partially avoids the classic pitfall in micro-economic studies: observed differences in health care consumption between the rich and the poor, controlled for health status, do not clearly establish the existence of socioeconomic inequalities. Do the poor consume less because they can't afford care or because

their preferences for health are equally lower?

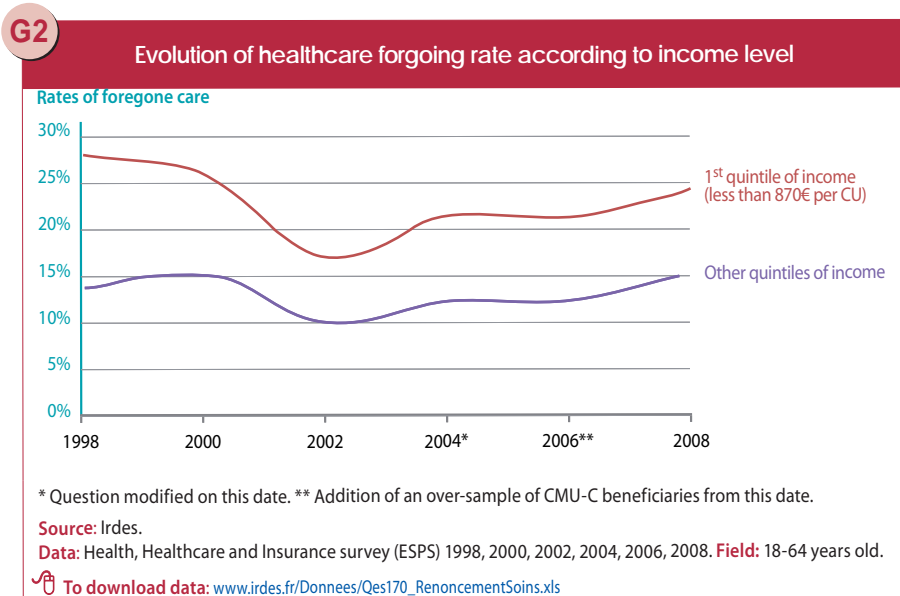
After having described the types of care that are assessed as given up on health care for financial reasons, SUN evolution from 2000 to 2008 and its distribution within different social groups, we analyse the determinants of SUN with a specific focus on the role played by social situation, complementary health insurance coverage and the cost of care.

Foregoing healthcare for financial reasons in France

In 2008, 15.4% of the French population aged 18 and over declared having foregone care for financial reasons over the last twelve months. Foregoing dental care is the most frequently cited (table 1). It concerns 10% of the population, ahead of eyewear (4.1%) and consultations (3.4% GPs and specialists combined).

Evolutions in healthcare renunciation between 2000 and 2008

The rate of SUN for financial reasons increased between 1998 and 2000 then dropped significantly between 2000 and 2002 (graph 1). Since then, it has increased continuously to almost come back to its 2000 level in 2008. In all these periods, individuals in the lowest income



eCONTEXT

This study forms part of a multidisciplinary research project financed by the Ministry of Labour, Employment and Health Directorate for Research, Studies, Evaluation and Statistics (Drees) and its Research Mission (MiRe). This project aims at gaining a deeper understanding of SUN for economic reasons, to assess that the concept and its measurement are methodologically founded. To achieve this, it borrows socio-anthropological, econometric and survey methodology analysis tools. The econometric analysis has already been published in 'Comptes de la santé' 2010 (Dourgnon *et al.*, 2011).

per consumption unit quintile⁶ more frequently forego care than the others (graph 2), but their healthcare renunciation rates however decreased steadily from 1998 to 2002. The difference in average healthcare renunciation rates between the upper and lower income quintiles was 14.2 points in 1998, in other words, just before the introduction of the CMU-C. It appears to stabilise at between 9.1 and 10.5 points from 2002. Similarly, the percentage of SUN among CMU-C insured drops significantly between 2000 and 2002, accompanying the scheme's progressive implementation. It then increases steadily until 2008 as for other population categories. The gap between CMU-C insured and private CHI beneficiaries has remained statistically stable since 2002.

SUN and health status

Age and gender is correlated with SUN. Women more often self-report foregoing care for financial reasons than men. This difference is observed whatever the type of care involved and remains constant throughout the entire lifecycle. Yet, in terms of dental care and eyewear, no objective physiological differences between men and women can be raised to explain these differences. The reasons are more likely to be found on the side of subjective health status: for comparable health status, women tend to have a poorer self-perception of their health than men (Shmueli, 2003). Differences in

SUN between men and women can also reflect differences in expectations from the health system.

The relationship between age and SUN follows an inverted U shaped curve: SUN increases continuously between the ages of 18 and 40, stabilises between the ages of 40 and 50 (maximum at 42 years old but differences exist according to type of care) then the trend reverses and progressively decreases whatever the type of care. Foregoing dental care diminishes significantly among the elderly and the oldest olds together with a reduction in dental care needs. These results are less apparent all other factors kept equals where the decrease becomes significant only among elderly. This can be explained by a generation effect according to which elderly persons would express fewer care needs for equivalent health status.

Deteriorated health status, whether approached from the subjective self-assessed health status angle, long-term illness status, or dental or visual health, significantly increases the percentage of individuals foregoing care. This result can arguably reflect that those forgoing health care are generally in poorer health as a consequence, but it also suggests that with declining health status, situations where care is needed increase, therefore increasing the probability of foregoing care. On the whole this result tends to show that SUN concerns more curative than preventive care (routine exams, etc.).

SUN as explained by socioeconomic status

Income per consumption unit and complementary health insurance have an impact on foregoing care. The analysis also sheds light on other factors that had never been documented so clearly in studies based on objective measures of health consumption (table 1).

Giving up on Healthcare is related to past, present and future social situation

Income has an influence on access choice. The rate of healthcare renunciation steadily increases as income per consumption

unit decreases. This gradient disappears, however, when different factors associated with socioeconomic deprivation are taken into account, leaving a threshold effect between the wealthy and the rest of the population (table 1). The 20%, and even more so, the 5% in the highest income bracket, differentiate themselves from the rest of the population with a much lower SUN rate. This result is even more manifest regarding dental care. Social origin also appears to have an impact, the rate of giving up on healthcare being lower among individuals whose father is or was a company director.

We measure life course effects of deprivation on SUN as follows. Nine deprivation dummy variables are taken into account; each of them having a significant independent impact, even more when taken as a sum of deprivation dimensions, on the rate of SUN. This result remains true even after controlling for other socioeconomic variables such as income per CU. These variables are the following:

- Life course deprivation episodes: financial difficulties, periods of economic inactivity, isolation, lack of permanent housing;
- Present or recent situation (over the last twelve months): having experienced financial difficulties, being forced into part-time employment, unemployment or on the contrary having been able to take a holiday;
- Anticipations: fear of losing one's job within the next twelve months, expected social support in case of financial problem.

Experiences of past, present or anticipated deprivation have an impact on the financial access to health care even when income and other socioeconomic variables are taken into account. They form part of the same mechanisms that lead to the construction of long-term vulnerability. Socioeconomic deprivation is clearly multifactorial as all its dimensions, for any given income level, influence the decision to forego healthcare for financial reasons. Current situation and past experiences have the greatest influence on healthcare renunciation, but expectations also plays a significant role and can be interpreted as either precautionary behaviour ('I am expecting it to be difficult in the future

⁶ Household income corrected according to household composition.

so I am saving today, avoiding expensive or unnecessary care’) or as a psychosocial effect⁷. Similarly, the presence of current, past or likely difficulties in accessing employment increases the risk of giving up on healthcare.

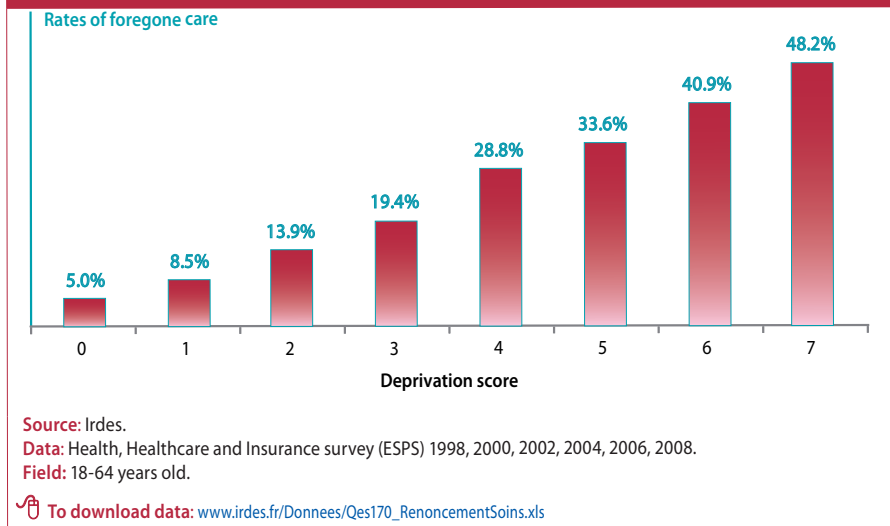
By adding-up these different dimensions, we construct a deprivation score (which comes down to adding together past, present and future deprivation situations but without making a distinction) so as to identify the cumulative effects of socioeconomic deprivation dimensions on financial access to health care (graph 3). The accumulation of social vulnerabilities then clearly appears as the most important determinant in the healthcare foregoing decision, whatever the type of care, even when controlled for income per CU (table 1).

This study thus reveals the complex nature of financial access to health care which is not just about costs and disposable income even though those are clearly contributing factors. Our results confirm

⁷ It is interesting to re-read the preamble to the act of October 4th 1945 on the creation of the Social Security: ‘Finding its justification in an elementary concern for social justice, it (the Social Security) will free the working population from an uncertain future, from the constant uncertainty that creates a feeling of inferiority in which class distinction, between the wealthy sure of themselves and their future and the workers over whom the specter of misery hovers at all times, is profoundly rooted.’ Over 60 years later, this vulnerability seemingly remains at the core of questions on social health inequalities.

G3

Healthcare renunciation rate according to deprivation score



that one cannot apply a basic economic framework model to access to health care analysis. Health care is not a standard good purchased and consumed according to individual preferences by an individual with a constraint budget. This study also reveals the limits of a medicalising model stating that health care needs exist independently of patients and that every health status corresponds to a unique way of treating oneself.

The protective role played by the CMU-C means-tested coverage

The lack of CHI as an obstacle to accessing health care services in France has been

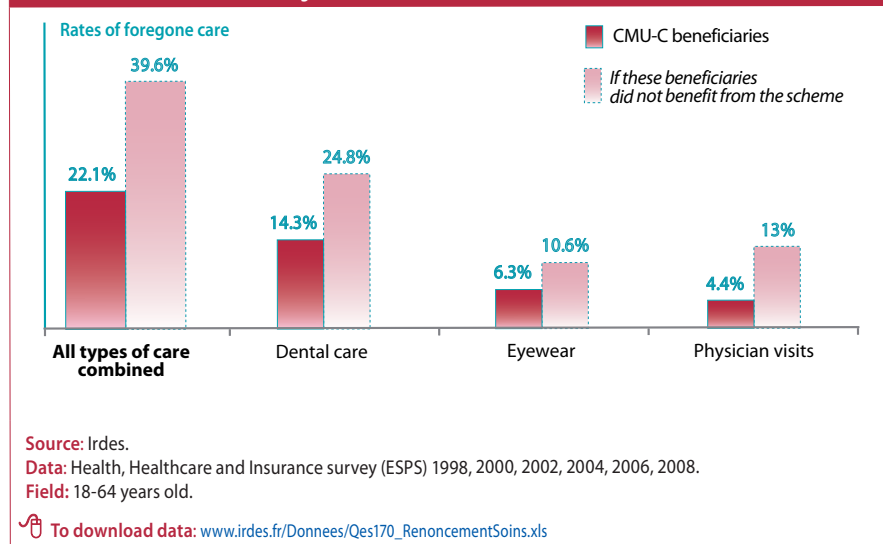
largely documented (Causat, Raynaud, 2004; Raynaud, 2005). Individuals without CHI are twice as likely to forego healthcare that is poorly reimbursed by the public health insurance coverage. The analysis has been refined in the ESPS survey making it possible to compare CMU-C and private CHI coverage according to the quality of complementary health coverage as measured by the insured’ self-assessed level of guarantee by type of care reimbursed (information available only for individual contracts).

Controlling for health care needs, individuals who declare needing better CHI more frequently self-report foregoing care than the others. Individuals without CHI (7% of respondents) forego healthcare more frequently (table 1). Moreover, individuals who explain that they can’t afford CHI forego care three times more frequently than individuals who declare not needing CHI. The results thus suggest that healthcare renunciation is preceded by foregoing complementary health insurance for financial reasons.

The rate of SUN among CMU-C beneficiaries amounted to 22% in 2008. What would this rate be without the CMU-C? We calculate a counterfactual rate of SUN among CMU-C beneficiaries if they did not benefit from the scheme, and obtain a rate of 40% , nearly the double of the actual rate [graph 4].

G4

Evaluation of the healthcare renunciation rate of CMU-C beneficiaries if they did not benefit from the scheme



T1

 Probability of having foregone care for financial reasons
 over the past twelve months - ESPS 2008

	General (all types of care combined)	Dental care	Optical care	GPs and specialists
Variables				
Gender	***	*	**	***
Male	0.73	0.87	0.76	0.67
Female	1	1	1	1
Age	***	***	***	***
< 30 years old	1	1	1	1
30-39 years old	1.07	1.02	1.56	0.81
40-49 years old	1.27	1.13	2.58	0.78
50-59 years old	1.05	0.84	2.43	0.50
60-69 years old	0.94	0.66	2.20	0.43
70-79 years old	0.65	0.41	2.69	0.34
80 and over	0.51	0.22	1.33	0.41
Income per consumption unit	***	**	*	*
< 5 th percentile	1.15	1.21	1.14	0.96
< 1 st quintile	1.01	1.06	1.16	1.10
< 2 nd quintile	1.24	0.96	1.42	1.38
< 3 rd quintile	1	1	1	1
< 4 th quintile	1.13	0.90	1.01	1.41
< 95 th percentile	0.65	0.70	0.91	0.72
> 95 th percentile	0.29	0.23	0.13	0.63
Deprivation score	***	***	***	***
0 (no deprivation)	1	1	1	1
1	1.86	2.23	2.43	0.97
2	3.11	3.04	4.61	1.81
3	4.38	3.74	6.18	3.64
4	7.53	5.83	11.50	5.54
5	7.96	6.20	12.20	5.42
6	11.78	7.71	13.60	9.70
7 and above	16.38	10.45	20.26	15.65
Social origins	***	**		
High (father director of a company of 10 employee or more)	0.33	0.46	0.29	0.41
Others	1	1	1	1
Education level	***	***	***	*
No diploma	0.58	0.61	0.63	0.80
Brevet CAP, BEP	0.76	0.83	1.02	0.61
Baccalauréat	0.93	1.09	1.20	0.70
Higher education	1	1	1	1
Complementary health insurance (CHI)	***	***	***	***
CMU-C (state-funded and means-tested CHI)	1	1	1	1
Private CHI	2.13	1.94	1.65	2.79
<i>Very good</i>	0.80	0.52	0.80	1.25
<i>Good</i>	1.51	1.25	1.20	2.40
<i>Average</i>	2.36	2.43	1.65	2.41
<i>Poor</i>	3.59	3.18	2.54	3.28
Without CHI	4.02	3.04	2.61	6.15
<i>By choice</i>	2.24	2.14	1.44	3.97
<i>Imposed</i>	7.63	5.81	4.45	7.44

Reading note: The values express odds ratios. Other variables were integrated in the model but are not presented here (type of household, general health status, mental health, national study and planning area). *** Variable significant at 1%. ** Variable significant at 5%. * Variable non-significant. Odds ratio: bold type (significant at 5%), underlined (at 1%). Multivariate analyses of healthcare renunciation, that simultaneously estimate the impacts of several potentially explanatory factors, are carried out using logistic models. The coefficients associated with each factor (odds ratios) indicate the correlation between the factor and the probability ratio of renunciation.

Data: Health, Healthcare and Insurance survey (ESPS) 2008.

To download data: www.irdes.fr/Donnees/Qes170_RenoncementSoins.xls

DATA AND METHOD

The data used are taken from the Health, Healthcare and Insurance survey (ESPS), merged with administrative data from the National Health Insurance reimbursement files. The ESPS survey is conducted by IRDES every two years on a sample base of 8,000 individuals sampled from the three main health insurance branches (Cnamts, RSI, MSA) and their households; that is a total of 22,000 participants.

The questionnaires broach respondents' social and economic situation, health status, complementary health insurance and healthcare services utilization. The questionnaire on SUN was introduced in 1992. It is administered by an interviewer and concerns the sample base only (those selected in the sample and not the other members of the household); that is 8,000 respondents each survey year. Survey data from 1998 to 2008 was used according to the needs of the study but the analysis focused on the most recent survey years. The majority of analyses were reiterated for several survey years to test their robustness. Work on the role played by the cost of healthcare in regional disparities was conducted on the 2006 and 2008 survey data combined.

The module on foregoing care for financial reasons is as follows:

'Over the last twelve months, have you at any time given up on healthcare for yourself, for financial reasons?'

 Yes

 No

If Yes: 'To what type of care did you give up on for financial reasons?'

Care 1:

Care 2:

Care 3:

 Health professionals' extra billings
 also influence giving up on health care

In 2008, 40.7% of specialists and 8.5% of GPs were enlisted in the so called unregulated "secteur 2". We show that these extra billings also explain giving up on health care for financial reasons. The most frequent case concerns dental care in regions where excess fees are the highest⁸. We observe significant differences in prices amounting to over 90€ between regions practicing the highest fees (Yvelines, Paris) and those with the lowest fees (Yonne, Aveyron, Haute-Loire), once the differences in population structure in terms of age and gender have been taken into account. These differences in prices in turn explain part of the cross-regions dif-

⁸ To take into account regional differences in dental fees we use core inlays, homogeneous products for which price differences a priori do not reflect differences in quality.

ferences in SUN that are observed in the models.

* * *

The study of giving up on healthcare for economic reasons confirms the strong relationship between complementary health coverage and access to healthcare. It also shows that life course socioeconomic factors have an impact on financial access to healthcare. Even if the CMU-C offers protection against foregoing health care for economic reasons that equals that provided by good and very good private complementary health insurance contracts, disparities in access to care subsist between social groups for a given level of insurance. Our results suggest that the issue of access to healthcare does not superimpose the issue of access to rights. It appears much vaster and as a consequence cannot be totally resolved through universal health insurance schemes. ♦

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10, rue Vauvenargues 75018 Paris • Tél.: 01 53 93 43 02 • Fax: 01 53 93 43 07 • www.irdes.fr • Email: publications@irdes.fr •

• **Director of the publication:** Yann Bourgueil • **Technical senior editor:** Anne Evans • **Editorial Assistant:** Anna Marek • **Reviewers:** Guillaume Chevillard, Julien Mousquès
• **Translator:** Véronique Dandeker • **Copy Editing and Page Layout:** Franck-Séverin Clérembault • **ISSN:** 1283-4769.