Historical and institutional background

Is migration linked to healthcare access in any way? Is migration motivated by health needs? Are remittances improving healthcare access? As an example, Tajikistan has the highest remittances as a share of GDP . Howeverdue to the lack of public healthcare financing, seeking medical help can be relatively costly and some households do renounce to it. Vulnerable population may count on the support of a member abroad to use healthcare.

Tajikistan was historically the poorest republic of USSR and remains the poorest in Central Asia. After the collapse of Soviet Union, Tajikistan has had to overcome a devastating civil war that has lasted over five years (1992-1997). It is a small, landlocked and mountainous country, during its time in the soviet Union it had specialized in the production of aluminum and cotton.,. Today, Tajikistan remains poor: after the war, and with the removal of the subsidies from Moscow, , the country remains in crisis; , the aftermath of these events has left Tajikistan with destruction corruption and overspecialization, disturbing the reconversion needed for the recovery. Its current GDP (PPP) per capita is around 2,3K$ (2013), which ranks Tajikistan 182nd, after Cameroon and just before Tanzania in terms of purchasing power.

Tajikistan has an officially universal and free access to healthcare system, which is inherited from Socialism. There are no social contributions and no insurance schemes; this is a budgetary-based financing. Already under-financed at the end of the Soviet Union, the healthcare system has been severely damaged by conflicts which deteriorated the infrastructures, by cuts in expenses and the resulting lacks in materials, by the departure of numerous doctors to Russia, and alike. Due to the state disruption and the consecutive wage disruption, petty corruption has also developed in its health system: in order to compensate their lack of wage, medical staff started to take informal payments. Despite the effort of the State to reform the healthcare system, helped by international donors, Tajikistan is still the country with the lowest share of public spending allocated to healthcare in Central Asia. Consequently household expenditure (out-of-pocket) covered more than 70\% of total health expenditure. The informal cost of healthcare access, made it unequal even if some redistribution organized by doctors might compensate a little (Falkingham, Habibov). Health represents a huge burden for households and some of the poorest renounce to seek for medical help (Kan, Pellet).

In this country where budget constraint is tight and employment opportunities are thin, migration is playing a great role in growth of GDP and support to households. Tajikistan has a very specific migration context. Recently, there were successive waves of different types of migration. After the decree officializing Tajik language in 1989, a first wave of emigration occurred: some thousands of ethnic Russians left Tajikistan. The second wave occurred during the civil war in the 1990s, populations running away the conflicts emigrated sometimes definitely from Tajikistan (“defensive” emigration, \cit{Clément}). After the default of 1998 in Russia, when the Russian economy started to grow again, the Tajik economy was still in crisis, a third wave of migration of a new type, labor migration, had begun (Jones et al. 2007). This trend was amplified in 2007, by a new policy in Russia, facilitating the work permit \endnote{A system of quotas has been implemented. The quotas in 2006-2007 were big enough to implicitly legalize the illegal workers and welcome new ones. This is explained by the weak demography in Russia and the lack of labor supply. However this trend was quickly stopped by the crisis and the political turn to nationalism. In 2008, the speech changed and Russia reduced sharply the quotas implying numerous returns to Tajikistan or illegal stays, reducing the remittances as well.}. This leads to an estimation of migrants’ transfers accounting for 49,6\% of GDP in 2008 (World bank 2010). Tajikistan would rank top in the world.

In this context it is legitimate to wonder whether migration is sometimes the only possibility to cope with a health shock occurring in the household and whether the remittances sent from abroad are more likely to be spent in the health sector, and hence improving healthcare access of the vulnerable Tajik households. As we can see the causality can be two-way, which invites us to proceed to an econometric analysis. See below for the identification strategy.

Contribution to the literature on Migration and Health

Since the 1980s, research on migrations considers the decision of migrating as a collective choice within the household in order to cope with financial risks in situations of vulnerability or uncertainty. We follow this view of migration as a collective choice (\cit{Chor}). Remittances sent by the migrant abroad are analyzed as portfolio diversification or substitute to other sources of income. There are numerous economic papers (Lucas and Stark, 1985; Stark and Lucas, 1988; and Shaw, 1988) that deal with the insurance aspects of migration, explaining the decision to migrate as a way of “diversifying” income sources (\cit{Gubert}). They argue that families, that are risk-adverse but live in a place lacking insurance schemes, will insure their incomes by allocating some members to the locations that are less subject to natural or economic shocks. From a different point of view but in the same idea of protection against risk, the socio-economist Bruno Lautier explains that in the case of the withdrawal of welfare state or the lack of state involvement in developing countries for example, informal family solidarity will develop and try to compensate the state action.

Concerning health risks or shocks, many papers showed the positive role of remittances on health (\cit{Amuedo-Dorantes}). In Colombia it has been demonstrated that migration is a substitute for indebtedness in households facing health shocks (\cit{Ambrosius}) and not only a complementary source of income. Similarly, the choice of migrating has been analyzed as substitution for other sources of uncertainty, for example a substitute for female labour participation in Nepal (\cit{Lokshin}), a substitute for local agricultural employment in Tajikistan (\cit{Atamanov}) and for informal sector activity in Tajikistan as well (\cit{Abdulloev}).

In both cases – diversification of sources or substitution to another income less stable or more constraining - migration is perceived as a response to a vulnerable situation.

An emerging literature in the Economics of Migration is the debate between the optimistic and the pessimistic view of remittance use. Are remittances used for consumption (short-term unproductive use) or for investment (long-term productive use)? The optimistic papers assess a positive effect of remittances on durable good expenditure in different countries like Albania (\cit{Castaldo and Reilly, 2007}), or Mexico (Taylor and Mora 2006, Zarate-Hoyos 2004). Concerning Tajikistan, M. Clément is rather pessimistic. He found that recipient households use remittances mostly for consumption and do not invest in human capital or in thriving business and firm. In the case of health expenditure, Clément underlines the fact that the literature is more unanimous than for education investment, and he found some positive impact of remittances (peculiarly domestic remittances) on health expenditure in some quintiles. This result actually raises the following question: is healthcare consumption good or productive investment?

Although we acknowledge/admit/recognize(?) the human capital thesis and then health expenditure as an investment, given the sanitary context in Tajikistan, we consider that demand healthcare is inelastic, a sudden need to satisfy in priority in case of bad health status, instead of an investment. The health status and the difficult access to medical help could even explain the migration itself.

More specifically about Tajikistan there are two main recent studies investigating the relationship between health and remittances. M. Clément studies the impact of remittances on the allocation pattern of expenditure, including health expenditure. S. Kan assesses the effect of remittances on all health outcomes. Clément notices that the remittances increased with the number of dependent persons (elderly, women, inactive) in household, documenting the idea of remittances as a support aiming at mitigating a situation of dependence. He found no significant effect of international remittances – except a 10% significant effect of remittances on health expenditure in the third quintile – but a significant effect of domestic remittances on health expenditure. They are the only productive expenditures that are affected by remittances. Although he is first considering health as an investment, following the human capital idea, his results incentivize him to redefine healthcare expenditure as consumption expenditure, which is very interesting for our study. Indeed, in Tajikistan health is rather a need due to formal (laboratory test, transport cost...) and informal (payments to the staff) costs that may be a source of strong indebtedness or renunciation to care.

We argue that the need for medical care has to be taken into account and seems to be a motivation for migration in some cases. Clément is looking for the causal impact of remittances by comparing two comparable groups of remittance-receiving and non-receiving households (matched by propensity score), but we are also interested in describing the *differences* between recipient and non-recipient households. Clément's paper uses a proxy for domestic and international remittances, equal to 1 if the household receives some help or gifts from a family member non-residing in the household. We are trying to identify more specifically the relationship between international migrations and health expenditure thanks to different questions about past and current migration and direct questions about the amount of remittances they sent from abroad. Indeed, this variable is directly related to migration as a collective decision within households, whereas private transfers describe more generally the solidarity and reciprocity within families and relatives, in Tajikistan.

By means of instrumental variables, S. Kan shows that remittances have a positive and significant impact on most health outcomes (day of inability, self-assessed health status, expenditure). Although the impact is low in intensity, it is still the most important one among different sources of incomes. It seems that households use a disproportionate amount of their remittance money toward healthcare expenditure. Kan also analyses the different channels and claims that this positive impact is passing rather through healthcare access improvement than through an increase in medicine expenditure, such as some papers in the literature assumed. This striking result is in line with our own results.

Beyond those important results, Kan does not investigate the differences among migration profiles. Indeed some recent migrants could have sent remittances to support /finance hospital expenditure, which are asked for the last 12 months in the questionnaire, and it needs to be taken into account. Unlike Kan's analysis, we define health outcomes (day of inability, chronic disease...) as proxies for the need for medical assistance and then as explanatory variables of health expenditure, instead of alternative health outcomes, and as possible factors of migration as well. They are part of the equation of health expenditure.

Concerning the equity effect of remittances on healthcare access, to our knowledge the literature is quite sparse. Kan does not analyze the effect in terms of distribution, Clément mentioned the different effect between quintiles, without investigating further, and Habibov (2011) analyses the equity impact of out-of-pocket on equity in access to care and in financing, but does not mention the role of migration and remittances in it.

In this paper, we first compare the different profiles of migrants and the effect of health status of different members of the households. Mother’s health appeared to be quite significant in affecting seasonal migration. In a second part, this paper investigates the elasticity of health expenditure to remittances by comparing recipient and non-recipient households, using a 2sls procedure to deal with the two-way causality endogeneity problem. We found a significant positive impact of remittances on ambulatory expenditure. Finally we turn to the equity effect of remittances and find that they contribute positively to inequality in access to ambulatory care.