



This is a repository copy of *Redesign and commissioning of sexual health services in England – a qualitative study*.

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/104233/>

Version: Accepted Version

Article:

Walker, I.F., Leigh-Hunt, N. and Lee, A.C.K. orcid.org/0000-0002-9795-3793 (2016)
Redesign and commissioning of sexual health services in England – a qualitative study.
Public Health, 139. pp. 134-140. ISSN 0033-3506

<https://doi.org/10.1016/j.puhe.2016.05.018>

This is an author produced version of a paper subsequently published in Public Health. Uploaded in accordance with the publisher's self-archiving policy. Article available under the terms of the CC-BY-NC-ND licence (<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Reuse

This article is distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND) licence. This licence only allows you to download this work and share it with others as long as you credit the authors, but you can't change the article in any way or use it commercially. More information and the full terms of the licence here: <https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

Redesign and Commissioning of Sexual Health Services in England – A Qualitative Study

Abstract

Objectives

Responsibility for the commissioning of sexual and reproductive health (SRH) services transferred from the National Health Service (NHS) to local authorities in England in 2013. This transfer prompted many local authorities to undertake new procurements of these SRH services. This study was undertaken to capture some of the lessons learnt in order to inform future commissioning and system redesign.

Study Design

A qualitative study was carried out involving semi-structured interviews.

Methods

Interviews were conducted with 13 local authority sexual health commissioners in Yorkshire and the Humber from 11 interviews. Thematic analysis was used to identify themes from transcripts of the interviews with the thirteen participants.

Results

Key themes identified were: the challenge and complexity to those new to clinical commissioning; the prerequisites of robust infrastructural inputs to undertake the process, including technical expertise, a dependable project team, with clarity over the timescales and the budget; the requirement for good governance, stakeholder engagement and successful management of relationships with the latter; and the need to focus on the outcomes, aiming for value for money and improved system performance.

Conclusions

Several key issues emerged from our study that significantly influenced the outcome of the redesign and commissioning process for sexual health services. An adapted model of the Donabedian evaluation framework was developed to provide a tool to inform future system redesign. Our model helps identify the key determinants for successful redesign in this context which is essential to both mitigate potential risks and maximise the likelihood of successful outcomes. Our model may have wider applications.

Key Words

Sexual health

Procurement

Qualitative research

Public health

Local government

Introduction

Health services in England in recent years have undergone significant reforms following legislative changes set out in the Health and Social Care Act in 2013. These included a transfer of responsibilities for commissioning some public health services. Commissioning is the planning and purchasing of services to meet the needs of a population, which in England, operates in a quasi-market¹. As part of the reforms, the commissioning of sexual and reproductive health (SRH) services are no longer solely the prerogative of the National Health Service (NHS). Local authorities in England are now responsible for a range of sexual health services that include treatment for sexually-transmitted infections, contraception, sexual health promotion, as well as HIV prevention and testing services. However, HIV treatment services are now commissioned separately by NHS England, with abortion services being commissioned by General Practitioner (primary care) led Clinical Commissioning groups (CCG)².

This new responsibility to procure SRH services was challenging as many local authorities lacked prior experience of commissioning wholesale clinical services. The procurement process also provided a unique opportunity for sexual health services to be re-designed and developed. Numerous guidance documents were produced by the Department of Health, Public Health England and the Local Government Association to assist local authorities with their new commissioning responsibilities. These documents outlined various commissioning considerations including the benefits of developing local solutions, encouraging the adoption of a 'whole systems approach' via joint commissioning with different commissioning organisations, the role of clinical input, good governance, and the desirability for workforce development and training³⁻⁹. The anticipated advantages of the reforms were redesigned services with a greater focus on prevention that were better enabled to address local needs including those of specific target groups. It was also envisaged that the reforms would lead to greater integration of sexual and reproductive health services. Prior to the reforms contraception and sexual health (CASH) services and genitourinary medicine (GUM) services had traditionally been delivered as separate services in many areas, but there were now opportunities for them to be delivered as one service^{10,11}.

The reforms however were not universally welcomed and numerous concerns were raised¹². As noted earlier, the local authorities were less familiar with commissioning and managing clinical services. There were also funding anxieties as the reforms were implemented at a time of shrinking local authority budgets. While CASH and GUM services had been provided by separate providers in some areas, over time clinical care pathways and financial flows were established to make these arrangements work. However, the new procurement process has led to fracturing of these pathways and relationships. A good example is HIV where prevention is now the responsibility of the local authority, HIV treatment that of the CCG and HIV drug costs that of NHS England¹². The impact of the reforms on SRH workforce development, training, governance and accountability were also uncertain^{10,12,13}. This led to fears that the changes could result in worsening care, reduced access to services and marked variations in service provision between areas^{14,15}.

Health system and service redesign is complex and challenging. Whilst there is a growing body of literature around commissioning redesign^{5,16-20}, the evidence-base for this remains limited. The English experience is unique in view of the scale of the commissioning reforms introduced. Three years on, most of the English local authorities have gone through the reforms and recommissioned sexual health services. For many, this was a challenging endeavour. At the behest of local commissioners in the Yorkshire and the Humber region, this study was conducted to try to capture some of the experiences of procuring SRH services and lessons learnt in order to inform future commissioning and system redesign.

Methods

This study was carried out with local authorities in Yorkshire and the Humber. This region in the north of England has 15 upper tier local authorities and a population of 5.4 million²¹. The localities include a mixture of rural and urban settings, with considerable variations in socioeconomic as well as demographic characteristics, ranging from affluent suburban areas, rural villages to deprived inner city areas.

A qualitative study was carried out involving semi-structured interviews with local authority commissioners in the region. This study was conducted at the request and sanction of the regional sexual health commissioners' network, which is a network comprising of representatives from all of the local authorities in the region involved in the sexual health agenda.

Interview participants were sought who were senior managers or public health practitioners in the local authorities who were directly involved in the commissioning of SRH services. Twenty one individuals across all the local authorities in the region were identified through the regional sexual health commissioners' network and invited to participate in the study, of whom seventeen responded (representing all 15 local authorities). Thirteen agreed to be interviewed from 11 local authorities. Of the remaining four individuals, three declined as no procurement had been undertaken in their local authorities and one declined as no-one who was currently employed in their team had been involved in the procurement process.

Semi-structured interviews were conducted using a standard interview schedule. The questions asked sought to explore the participants' experiences of commissioning SRH services, explore barriers and enablers, as well as capture issues that arose in the process. Interviews were arranged at a location convenient for the participants, which were mainly at their workplaces. One researcher undertook the interviews during June and July 2015. None of the participants were known to the interviewer prior to being interviewed. All of the interviews lasted less than an hour, were digitally recorded and then transcribed verbatim. Consent was given by all participants to record and transcribe the interviews on condition of anonymity, with any reference to person, place or organisation removed.

All of the transcripts were then initially analysed by two researchers. A coding framework was developed by both researchers without any pre-conceived themes. An analytic inductive approach was undertaken iteratively to identify themes, which enabled the themes to emerge from the data. Coding and ongoing comparison of the data refined the themes and enabled testing of any deviant data. Where there were significant differences in thematic coding between the two coders, these were discussed until eventual resolution. The final themes and sub-themes were agreed by the same two researchers, and a conceptual framework was devised with additional input from the third researcher. No new themes emerged from the final few interviews, indicating thematic saturation had been achieved. Further validation of the results was achieved through presenting findings to the regional sexual health commissioners who were unanimously supportive of the themes²².

Results

Data were collected for this study from 13 commissioners from 11 interviews (see summary of themes and sub-themes in Table 1). Six were public health consultants and seven were senior managers within public health teams.

Table 1 – Themes and Sub-Themes (attached .doc file)

Main Themes	Sub-Themes
Timing	The council processes are complex and can easily delay the process
	GPs were the cause of some obstacles in their role as commissioner and provider
	Councils are not experienced at procuring clinical services
	Leave plenty of time for the mobilisation phase
Governance	Keeping a log of all meetings and decisions protected the process
	Document a plan for the whole process, working back from contract date
	The robust process in the council protected against challenge from providers
	Independent advisors and panel members protected the process from challenges
Clarifying Outcomes	Spend plenty of time on engagement and consultation to inform your service model
	Needs assessment and consultation justifies your model which helps you defend from scrutiny
	Be clear on the end goal and outcomes you want to see impacted and measured by the service
	Complex commissioning arrangements for sexual health
Specialist support	Identify a team of key colleagues at the start and meet throughout the project
	Be clear on responsibilities and document these for each stage
	National guidance was generally good but published too late to be useful
	Clinical advice was crucial in defending the model and the process
	Support from other commissioners was helpful in sharing ideas and sense checking
Ethical considerations	Private providers were seen as a threat to NHS services and values
	Questioning whether procurement was the only means to transformation
	Having undertaken it commissioners were more convinced of the value of procurements
Finances	Need to spend a lot of time/energy on what the finances are including what savings expected
	Unclear allocations of budgets when public health went over to councils
	Decisions about what finance model to go with - block v tariff v mixed
	Outstanding financial issues remain about cross charging - no national solution offered
Personal impact	Steep learning curve for most commissioners who were inexperienced in procurements
	It was all consuming and other aspects of their work had to be neglected
	There was high personal stress and anxiety experienced
	Dealing with organisations and systems
Public Health Outcomes	Health inequalities can be identified and addressed in the new service model
	Prevention can take a more significant role within the sexual health services
	A more human approach to procurement and contracting - not counting widgets
	Emphasis on ensuring clinical pathways are sound and no gaps in the service appear
Provider relationships	Incumbent provider can create obstacles to the procurement and mobilisation process
	Relationship to commissioner became more adversarial
	Capacity issues with staff writing bid paperwork and people leaving without replacement
	Incumbent provider did not understand procurement process, rationale and principles
Other relationships	Communicating within the organisation early and effectively
	Scrutiny and questioning within the council helped to improve the procurement
	Extensive, formal dialogue with bidders during the procurement led to better bids
	Timely response to bidders' questions during PQQ and ITT was necessary

Commissioning challenge and complexity

The whole experience of re-commissioning SRH services was often described by commissioners as being challenging and highly stressful: *“It was all about timing... and turmoil I’ll say, at that time, was horrendous. Just thinking back I don’t know how we survived actually. I think there was a lot of stress”* (R6). A large part of this could be put down to the size of the contract involved: *“We were looking at a three million pound contract year on year, you know fifteen million pounds. That’s a lot of responsibility.”* (R4). The commissioning process was also seen as all consuming: *“I did nothing else but sexual health and it took all of my time. But that was to the detriment of some other things that just got left off”* (R10)

Part of the reason for this was the multitude of organisational hurdles that had to be addressed; the procurement process within local authorities was viewed as being very bureaucratic, though it was also recognized that this had its advantages: *“it’s certainly more complicated and a longer process than in the PCT but I think it’s sort of built to avoid legal challenge. So when you get to the end of it, potential providers that have lost out can be pissed off but they can’t challenge you on the process cos it’s really closely managed... I think the way the local authority does things on that is really good and above board – it’s fairly tight”* (R1)

Context of the process

The complexity and size of the task for some commissioners was partly due to the context of the particular local health system itself, with interviewees describing an intricate system of interlinked services commissioned by different organisations: *“sexual health is quite complicated because different people are paying for different bits of the pathway. So you’ve always got to be aware of that and always be open to a dialogue with others...”* (R4)

Commissioners were also keenly aware of the European legislation dictating a procurement process was necessary: *“this is not a choice... it goes out to tender!”* (R11) and the national political context that had led them to move to local authorities and work for new local political masters who were unfamiliar with this area: *“[local authority elected] members were a bit scared; it was a new NHS programme that they’d never had to think about”* (R11).

Infrastructural inputs to commissioning

In order to undertake this complex piece of work, the commissioners identified several key resources that were needed and utilised:

- a range of technical expertise,
- a project team,
- a clear timescale for the process, and
- a financial sum to procure against.

Procurement, legal and clinical expertise were key areas of technical expertise that were especially sought and valued: *“So they took us on and the process with them was absolutely brilliant... they guided us through the whole procurement stages with the financial support, the legal support”* (R8a) These specialist technical inputs were seen as essential to achieve a successful outcome, with the need to identify and secure them as part of the commissioning process highlighted. The available support and published guidance from national public health commissioning bodies was also discussed but their use was felt by many to be limited due to their late publication and release.

The need for a mapped out process and clarity over stakeholder roles and responsibilities was mentioned: *“to have that staged process, what needs to happen, who’s going to take responsibility for what and actually put names next to responsibility”* (R10) which together with a clearly documented plan would ensure timely completion of the re-commissioning: *“We had a project plan*

... although there's always lots of slippage, different things happen. But it's useful to have that, that was a good thing to have" (R3b)

Many of the commissioners reported difficulties in determining the size of the commissioning budget allocated to SRH services; this was as much due to the process of transferring financial resources from the NHS to local authorities as to the fact that many of the SRH services had never been commissioned individually before, having previously been contained within large acute hospital contracts: *"trying to work out what had been spent on sexual health and where it was going has taken months ...and there is still things coming out of the woodwork now to be honest that I'm dealing with... you thought you had the budget all right and something else would come up."* (R1)

The Commissioning Process

From the interviews, a number of key processes emerged:

- Governance of the commissioning process,
- Engagement with stakeholders, and
- Relationship management with key stakeholders

Governance

Those commissioning SRH services had to acquaint themselves to a completely new commissioning environment subsequent to transferring with their public health teams from the NHS to local authorities. This included the need for familiarisation with new governance mechanisms and procedures: *"...clearly you need to go to Cabinet to ask for permission to start the procurement and you ask if you can award a contract."* (R11). Related to this was the need to keep an accurate record of decisions that were made and meetings that were held, driven to a large extent by anxieties regarding the potential threat of legal challenge to the outcome of the commissioning process: *"Our concern was to have as tight a process as possible – clear, tight and something that couldn't be picked apart really."* (R9)

Stakeholder Engagement

Stakeholder engagement was also acknowledged as being vital, in particular with the existing service providers at an early stage to ensure that the clinical pathways were sound, potential gaps were addressed and that the new system would perform well, and to avoid problems such as conflicts of interest that might arise from some stakeholders acting as both commissioners and providers of services. The need for public engagement was identified as necessary to provide commissioners with an insight into the needs of the population and confer a degree of legitimacy on them with regards to making service changes: *"Although it's been quite painful in many ways and it's been very lengthy, I think it was worth doing to get to grips with actually what we wanted."* (R10)

Relationship management

Managing relationships with organisations bidding for the new service contracts and the incumbent service provider was another challenge. Most commissioners observed a noticeable deterioration in their relationship with the incumbent providers once the procurement process started: *"from a commissioner-friendly lets-plan-it-together relationship to a quite standoff-ish [relationship]"* (R8a). It was challenging for commissioners to maintain good working relations built on trust once the procurement started as providers became more protective and suspicious of commissioner queries and actions: *"I got the train home with one of the consultants and it was just awful... I know they didn't think this ... but you know, like evil commissioners! As if we're sat here rubbing our hands together all excited about going out to tender"* (R5). Deterioration in key relationships occurred particularly where the previous provider was not awarded new service contracts. The exiting provider unsurprisingly became increasingly disengaged and this led to difficulties with negotiations over the transfer of staff, estates and medical records to the new service provider.

One solution adopted to improve relationships was to stick to a more formal dialogue with each bidder throughout the procurement process and instigate a formal feedback process for bidders to highlight areas of weakness and scope for improvement. This was felt to allow improved quality of bids as providers could subsequently amend and re-submit them. Maintaining peer relationships with commissioners in other local authorities was also reported to be helpful. The commissioners found such peer networks provided strong professional support and was an important means of getting informal advice and sharing ideas and experiences.

The other key set of relationships to be managed were internal ones within their own organisations, especially with senior decision makers in local authorities who would occasionally question the proposed service model or scrutinise the commissioning process undertaken. However commissioners generally viewed this challenge positively as it gave them an opportunity to improve knowledge within local authorities around their newly acquired sexual health responsibilities.

Commissioning Outcomes

Almost without exception, the commissioners viewed the commissioning process positively as it provided them with an opportunity to redesign the SRH service model with improved system performance and accountability. Most commissioners felt they had secured better value for money from the newly commissioned providers, especially in view of the growing financial constraints local authorities were then experiencing. They were generally optimistic that desired sexual health outcomes for the population were more likely to be achieved, with the reforms to the commissioning process having brought about a substantial shift away from the previous provider-led model of service delivery to one more strongly commissioner-led. Despite this, several commissioners still felt uneasy about the outsourcing of public health services, with the transfer of commissioning responsibilities perceived as a form of pseudo-privatisation: *“We came from the NHS. But we had no experience of commissioning, performance management, writing contracts, measuring contracts. Commissioning is business and actually I’ve never done business before...”* (R6).

Discussion

Main finding of this study

This qualitative study documents the experience of commissioners procuring public health services in England following substantial health sector reforms. Uniquely, the reforms that have taken place have led to the transition of commissioning responsibilities for SRH services from a nationalised health system to local authorities, many of whom have had little prior experience of commissioning clinical services. Unsurprisingly the process has been complicated and very challenging, requiring key inputs such as technical expertise, financial resources and tight project management, as well as clear governance, stakeholder engagement and skilful management of key relationships. Despite this the opportunity for considerable service redesign has arisen, allowing an emphasis on greater local accountability, value for money and a focus on delivering better sexual health outcomes.

What is already known on this topic

The findings of this study complement a report by the UK Local Government Association involving nine local authorities and their external sexual health providers, which highlighted the importance of collaboration between commissioners and providers as well as engagement with senior executives, legal and procurement teams, clinicians and providers in order to get expert guidance. It also identified the need to garner a robust evidence base informed by health needs assessments which included the views of service users, and to consider opportunities to integrate the various components of sexual health services, seeking efficiency savings through prioritising prevention and joint commissioning. Further recommendations were to ensure suitable outcome indicators were selected and avoid focusing only on fiduciary duties²³.

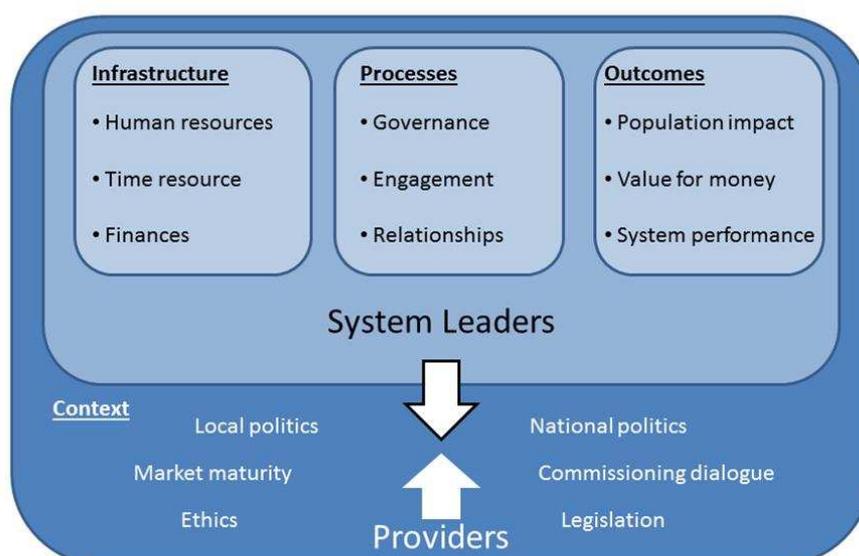
What this study adds

This study has identified some similar themes to the LGA report that may have wider application when undertaking wider system redesign work in public health and beyond. Our study identified several key components required for the commissioning process. This included the need for defined resources of time, labour, skills and finances allocated from the start to ensure there is sufficient input at each stage to see the process through to completion. System redesign and service commissioning also occurs through a web of complex relationships between individuals and organisations that require careful management. Engagement with key stakeholders is particularly important and a robust governance process is required to ensure clarity of roles and responsibilities and that the mechanisms of decision making in the process are well determined.

Any system that undergoes a purposeful redesign process should have clear outcomes articulated from the outset. This is crucial for ensuring that the process is then outcomes-focused and directed. These outcomes also need to be explicit. In our study, it was apparent that in addition to better population-level sexual health outcomes, the other outcome of interest included the need to deliver value for money. The other key component for consideration is the commissioning 'context'. An awareness of the wider context within which the system redesign takes place is crucial in order to maximise outcomes and mitigate risks. The context will vary from one system to the next but is likely to include aspects of politics (both local and national), legal restrictions and duties, ethical considerations and the maturity of the provider market to respond to commissioning tenders.

We attempted to understand how the different components of the process and issues identified from the interviews were linked. In seeking a model that accurately encapsulates the findings, we found that an adaptation of the Donabedian evaluation model was ideal for this purpose²⁴ (see Fig. 1). The model we propose illustrates the key components for consideration (commissioning infrastructure, processes and outcomes sought) as well as highlights the importance of contextual factors. This model may help commissioners plan future service procurements and help guide the management of the process by ensuring that key elements are addressed such as risk identification, mitigation and stakeholder management, as well as project evaluation and impact assessment.

Figure 1 - Model for system redesign and service commissioning



Limitations of this study

In this study commissioners from only one region of England were interviewed, but whilst it is possible that the commissioning experience in other regions may be different, we believe our findings are likely to be generalizable in England as the procurement processes, legislative requirements as well as local authority and health service configuration, is likely to be similar nationally.

Interviews were also restricted to commissioners, so the findings may reflect a biased view of the process from the commissioners' perspective. It would be useful to interview the other stakeholders involved in the commissioning process, especially the service providers. That said, the purpose of this study was to enable commissioners to reflect and learn from their commissioning experience; other stakeholders may have a narrower perspective with views not fully cognizant of the full extent of commissioning concerns such as political, legal and funding issues. The commissioners' views on the other hand assimilate to a degree these wider concerns.

Conclusions

The commissioning of SRH services by local authorities in England are only but one of a raft of services that have been transferred across from the NHS. Other services affected by the reforms include smoking cessation services, drug and alcohol treatment services, as well as health visiting and school nursing services, among others. This reflects an ongoing evolution in the health system in England, with a move towards more integrated commissioning of health and social care services, as well as greater local authority responsibility for these services. The increasing devolution of powers from central government to local authorities in England means this issue will remain topical for some time to come. System redesign, and the commissioning processes that take place within this context, is complicated and challenging. Our model helps identify the key determinants for successful redesign in this context, mitigating potential risks and maximising the likelihood of successful outcomes.

Acknowledgements

We are grateful to the Yorkshire and Humber Sexual Health Commissioners' Network for asking us to undertake this study on their behalf and to the interviewees who gave their time and for their willingness to be candid with us.

Funding: None

Competing interests: AL is on the editorial board of 'Public Health' journal

Ethical approval: Not required as this was a service review undertaken at the request of the commissioners' network.

References

1. Miller R, Peckham S, Coleman A, McDermott I, Harrison S, Checkland K. What happens when GPs engage in commissioning? Two decades of experience in the English NHS. *Journal of health services research & policy*. 2015.
2. Marks L, Hunter DJ, Scalabrini S, Gray J, McCafferty S, Payne N, et al. The return of public health to local government in England: changing the parameters of the public health prioritization debate? *Public Health*. 2015; 129:1194-203.
3. Department of Health. A framework for sexual health improvement in England,. London; 2013.
4. Department of Health. Commissioning sexual health services and interventions : Best practice guidance for local authorities. Department of Health: London; 2013.
5. Public Health England. Making it work : a guide to whole system commissioning for sexual health, reproductive health and HIV. 2014.
6. Department of Health. Sexual health : clinical governance : key principles to assist service commissioners and providers to operate clinical governance systems in sexual health services. 2013.
7. Local Government Association. Sexual health commissioning : frequently asked questions2013.
8. Department of Health. Integrated sexual health services : national service specification a suggested service specification for integrated sexual health services. 2013.
9. Department of Health. Sexual health services : key principles for cross charging : key principles to assist service commissioners and providers to develop fair payments systems. 2013.
10. Kirby T, Thornber-Dunwell M. England's HIV services face complex new environment. *Lancet*. 2014; 383.
11. Gillen S. New sexual health commissioning framework will integrate services. *Nursing Standard*,. 2014; 28:11.
12. Clarke J, Carlin E. Sexual health is another commissioning crisis. *Bmj*. 2015; 350:h149.
13. Iacobucci G. A third of NHS contracts awarded since health act have gone to private sector. *Bmj*. 2014; 349:g7606.
14. British HIV Association. HIV patients set to suffer as a result of NHS restructure. 2013; Available from: www.bhiva.org/NHS-restructure.aspx.
15. Limb M. Split in commissioning between local authorities and health bodies is reducing access to sexual health services. *Bmj*. 2013; 347:f7311.
16. Unleashing Innovation: Excellent Healthcare for Canada: Advisory Panel on Healthcare Innovation,2015.
17. Blatchford K, Gash T. Commissioning for success: how to avoid the pitfalls of open public services: Institute for Government2012.
18. Gash T, Blatchford K. Testing New Commissioning Models: A guide to help policy makers learn about publically funded markets: Institute for Government2012.
19. Williams I, Bovaird T, Brown H, Allen K, Dickinson H, Kennedy J, et al. Designing whole-systems commissioning: Lessons from the English experience. *Journal of Care Services Management*. 2012; 6:83-92.
20. Shaw SE, Smith JA, Porter A, Rosen R, Mays N. The work of commissioning: a multisite case study of healthcare commissioning in England's NHS. *BMJ Open*. 2013; 3.
21. Office of National Statistics. Population Estimates for UK, England and Wales, Scotland and Northern Ireland, Mid-2014. 2015.
22. Ritchie J, Lewis J. Qualitative research practice : a guide for social science students and researchers. London: SAGE; 2003.
23. Local government association and MEDFASH. Sexual health commissioning in local government: building strong relationships, meeting local needs. 2015.
24. Donabedian A. Evaluating the quality of medical care. *The Milbank Memorial Fund Quarterly*. 1966; 44:166-203.