

生労働科学研究費補助金（地球規模保健課題解決推進のための行政施策に関する研究事業）「2030年までの Universal Health Coverage 達成に向けたアジア各国の進捗状況と課題に関する研究」

令和4年度 分担研究報告書

「Universal Health Coverage を達成するための PPP (Public-Private Partnership) について」

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研究要旨：

【背景・目的】ユニバーサル・ヘルス・カバレッジ (UHC) 達成と保健システムの課題解決に向け、各国では様々なアプローチが展開されている。なかでも官民連携 (Public Private partnership : PPP) は、政府がインフラの不足や老朽化に直面し、より効率的なサービスを必要とする場合、新たな解決策の創出や資金調達に役立っている。一方、新型コロナウイルス感染症の世界的蔓延により、多くの低中所得国 (Low and Middle Income Countries: LMICs) の保健セクターにおいて、民間事業者の財政やサービス提供の危機、それに伴う国家・事業者が遭遇する危機の発生への指摘がなされている。本研究ではユニバーサル・ヘルス・カバレッジ (UHC) を達成するための PPP について、その有益性と課題、with コロナ時代に求められる対応について分析し、アジア諸国における今後の有効策を検討することを目的とする。

【方法】本年度は、保健医療分野における官民連携・PPP について、初年度に引き続き World Bank (世界銀行)、WHO、OECD 等の国連機関による公表文書や各国省庁公表文書、関連ジャーナル等の文献による情報収集を行った。特に、プライマリヘルスケアにおける PPP に焦点を絞って情報収集を行った。

【結果】保健医療分野における最も一般的な PPP は、医療施設の建設または改修、運営、臨床サービスの提供を含む複合的な医療サービスの提供であるが、近年プライマリヘルスケアレベルでの予防・治療サービスを含めた報告も増加している。サービスのアウトソーシング等によって事業者間の競争が刺激され、経済的インセンティブが生じることにより、サービス提供の改善が目指されているものの、多くの場合、サービスへのアクセス改善は期待されるが、公平性、質、効率といった他のパフォーマンスやシステム全体に及ぼす効果については不確実である。また、PPP プロジェクトの対象とはなりにくい分野でもあるため、公的機関によるコスト確保が推奨される。具体的には、専門医や診断サービスなどの小規模プロジェクトで試験的に利用し、時間をかけてより複雑なサービス領域で契約することが提案されている。

【考察・結論】PPP の進展や有効性は、各国の PPP に関する基盤的な法整備状況等が大きく関与している。世界銀行等の国連機関による援助がある一方で、サービス提供側の運営や人材育成、公平性や質、国のサービス全体への効果について、さらに検討する必要がある。アジア諸国が抱える保健課題は感染症のみならず NCD (非感染性疾患) や高齢化の影響も大きいことから、各国において優先度の高い保健課題を中心に有効な PPP のあり方の検討が求められる。施設型の医療サービスや地域におけるプライマリヘルスケアサービスなど、各国の実状に応じた PPP 構築のため、システム全体を俯瞰した対応が期待される。

A. 研究目的

これまで、ユニバーサル・ヘルス・カバレッジ（UHC）達成と保健システムの課題解決に向け、各国では様々なアプローチが展開されているが、なかでも官民連携（Public Private partnership）は有効とされてきた[1]。一般に、PPPは、インフラサービス（上下水道、交通、健康、教育など）を提供するために、公的セクター（政府など）が、民間セクター（協同組合、民間企業、慈善団体、非政府組織（NGO）など）の知識、経験、財源などの能力を活用する仕組みである。政府がインフラの老朽化や不足に直面し、より効率的なサービスを必要としている場合、民間セクターとのパートナーシップは、新たな解決策の育成と資金調達に役立っている[2]。

数十年にわたり、政府や開発パートナーは多くの低所得国（Low and Middle Income Countries: LMICs）の保健セクターにおいて、各国政府が人々のニーズを満たすために必要な保健サービスをカバーするためにPPPを推進してきた。一方で、2019年以降の新型コロナウイルス感染症(COVID-19)の世界的蔓延により、これらの国々では、民間事業者の財政・流動性の危機、サービス提供・価格設定の危機、それに伴う国家・事業者関係の危機の発生につながったと指摘されている[3]。

本研究では、ユニバーサル・ヘルス・カバレッジ（UHC）を達成するためのPPPについて、その有益性と課題、withコロナ時代に求められる対応について分析し、アジア諸国における今後の有効策を検討することを目的とする。

B. 研究方法

本年度は、保健医療分野における官民連携・PPPについて、初年度に引き続き

World Bank（世界銀行）、WHO、OECD等の国連機関による公表文書や各国省庁公表文書、関連ジャーナル等の文献から、特にプライマリヘルスケアにおけるPPPに焦点を絞って情報収集を行った。

＜倫理的配慮＞

該当なし

C. 研究結果

PPPとプライマリヘルスケアに関するコンセンションのあり方など、これまでにWorld Bankによるモデルの紹介等がなされているが、その取組内容は各国によって様々である[4]。

イランでは、医療協同組合（health cooperative）という新たな官民連携モデルを開始し、プライマリヘルス領域のサービスの評価を行っている[5]。既存の公衆衛生センター（PHC）と協同組合保健センター（CHC）における保健サービスの実績と質を比較したところ、スクリーニング・プログラム中の訪問者の割合や母性健康管理のいくつかのプログラムでは、CHCがより良い結果を出しており、子どもの健康管理のほとんどの指標、学校保健プログラムおよび健康教育のすべての指標は、CHCの方が優れているか、同程度であった。環境衛生ではPHCがカバーする人口と比較して、CHCがカバーする人口に有意な差はなかった。この他、マネジメントにおける顧客と職員の満足度、職員の経営への参加と態度もCHCの方が優れていた。PHCがカバーする人口の一人当たりの平均年間コストは、PHCの方が高かった。結果として、イランにおける官民連携モデルとしてのCHCは、多くの分野でPHCと同等の予防医療サービスを提供できる可能性があり、地域によってはさらに優れていると報告されている。

インドでは、PPP のベストプラクティスを共有し、公務員や民間開発者の PPP プロジェクト実施能力を高めるために、PPP 部署で開発された様々なプロダクトを紹介している。これらのナレッジプロダクト(knowledge products)には、マニュアル、グリーンブック、PPP に関する委員会の報告書、インドにおける PPP イニシアチブを含むケーススタディ、インフラにおける PPP プロジェクトの実施に関連するオンラインツールキットなどのガイダンス資料が含まれている[6]。この中に、プライマリヘルス向け、およびプライマリヘルスのプラクティショナー向けの仕様書が掲載されている[7,8]。

インドのプライマリヘルスケアは、医師不足、物理的なインフラや施設の不備、薬剤不足、国民への説明責任の欠如やコミュニティへの参加の欠如、ケアの質を監視する基準の欠如、など様々な課題を抱えている。

プライマリヘルスセンターで提供されるサービスには、24 時間の救急を含めた外来治療、家族計画を含む母子健康管理（産前ケア、産後ケア、紹介、産後ケア、新生児保育。育児や家庭福祉を提供するサービス、医学的な妊娠の終了（人工妊娠中絶）、妊娠の管理、性感染症、思春期外来サービス等）や、厳選された外科的処置（腹腔鏡を含む）が想定されている[8]。PPP によるプライマリー・ヘルスケア・クリニック（PHC クリニック）は、プロジェクトの目的や当局の要求、疫学的評価、予算支出に応じて、上記のサービスの一部または全部を提供することができる。

PHC クリニック運営者のための上記ガイドでは、PHC クリニックの設置について①クラスターで開発するもの（州政府が、地域に複数の PHC を開発するためのコンセッション業者を任命）、②個々の PHC 開発（当局が一次医療機関の開発の

ためのコンセッション業者を任命）を提案している。

クラスターで開発する PPP プロジェクトは、州政府が様々なプロジェクトを1つの共通の傘の下にまとめ、そのパッケージを民間企業に提供するものである。まず、地区レベルで一次診療所が必要な地域を特定する（例えば 20 の PHC）。その後、通常 3~6 箇所の PHC からなるクラスターにパッケージ化され、各パッケージは、個別のプロジェクトとして扱われる。入札者は、いずれか、またはすべてのパッケージに対して入札を行う。すべてのパッケージについて単一の技術提案書を提出し、各パッケージについて個別の財務提案書を提出することになる。

クラスター開発のメリットは、PHC の統一性・標準化が可能であること、また PHC 規模が大きくなるため投資とリターンの最適性が期待できること、合同入札プロセスによる効率化、手頃な価格（複数のプロジェクトが集まるため、より良い規模の経済を達成）、より良いモニタリングが可能となることである。

WHO/欧州委員会の最新の報告書では、医療分野における PPP を最適化するために、各国政府が取るべき主要な行動を提示している[9]。WHO ヨーロッパ地域の中所得国は、プライマリーケアレベルの能力不足、インフラの老朽化、高額な自己負担、あるいは病院や専門施設の過剰など、医療システムの効率化に対する共通の課題に直面しており、多くの国では、PPP がこれらの課題に対処する役割を果たすことができるという認識がある。

この報告書の中では、PPP の抱えるリスクを踏まえたうえで、「バリューフォーマネーを確保する」ということは、PPP が他の調達オプションと比較して最も費用対効果の高いソリューションである場合

にのみ実施する」ことが推奨されており、政府が複雑で長期的な契約を設計、計画、監視し、医療予算への長期的な影響を考慮することができなければならないと述べている。

また、公的機関が他の社会的義務を損なうことなく、プライマリーケアなど PPP プロジェクトの対象とはなりにくい分野への投資を減らすことなく、コストを確保できるようにすることを推奨している。具体的には、PPP を利用する際には、専門医や診断サービスなどの小規模なプロジェクトで試験的に利用し、時間をかけてこの種のパートナーシップで政府の能力を高めてから、より複雑なサービス領域で契約することを提案している。

具体的なステップとして、

- ① パートナーシップを結ぶ前に、保健省は医療システムの中で投資が必要な分野やサービスに優先順位をつけ、最も費用対効果の高い解決策である場合にのみ PPP を実施すべきであること。
- ② 次に、政府は、医療インフラの近代化（投資決定）と、医療システムの将来の財政的持続可能性を確保するための支払い方法（調達決定）に関する全体的な戦略計画を策定する内部能力を持つことが挙げられる。これらは保健システムの長期的な効率性に不可欠な政府の中核的機能であり、外部機関が行うべきものではないとされている。
- ③ さらに、多くの PPP が地方レベルで行われる可能性があるため、政府は、競争的な調達プロセスの運営、効果的な契約の設計、契約の履行状況のモニタリングにおいて、地方保健当局を支援する内部能力を持つ必要があること。また、透明性を確

保し、財政リスクを最小化し、公共の利益を守るために、制度的なチェック・アンド・バランスも整備されることとして

D. 考察

昨年度の報告書でも言及したように、PPP プロジェクトの成功は、プロジェクトの質的成果に基づいて評価され、最も一般的な評価方法はバリュー・フォー・マネー分析である。しかし、ヘルスケアのような政治的な影響を受けやすい公共政策の分野における PPP を測定するためには、定量的・定性的基準の両方が必要である。ヘルスケアの特性を考慮して PPP を成功させるためには、コミュニケーションと広報、設計と建設後の計画に特別な注意を払わなければならないことが指摘されており[10]、最新の WHO 報告書ではさらに踏み込んだ内容となっていた。

報告書では、プライマリヘルスケアにおける PPP 事例について述べた。高齢化や非感染性疾患（NCD）の罹患率が増加しているインドでは、2017 年の国家保健政策で、包括的なプライマリヘルスケアを提供するプラットフォームとして「ヘルス&ウェルネスセンター(HWC)」の設立を通じて、プライマリヘルスケアの提供を強化することを推奨し、保健予算の 3 分の 2 をプライマリーヘルスケアに充てることを求めている[11]。

現在、インドの一次医療には、サブセンター(Health Sub Center : HSC、最末端の保健医療施設であり、農村部の人々に母子保健サービスを提供する拠点である。人口 5,000 人につき 1 施設(丘陵地域では人口 3,000 人につき 1 施設)設置)8,713 施設、プライマリーヘルスセンター(Primary Health Center : PHC、農村

部では人口 3 万人につき 1 施設(丘陵地域では人口 2 万人につき 1 施設)設置される。医師、看護師等を配置し、予防・治療サービスを提供) 2,330 施設、コミュニティヘルスセンター(Community Health Center : CHC. PHC4 か所のリファーマル(医療連携)施設として、人口 8 万から 12 万人につき 1 施設設置。専門医 4 名(外科医、内科医、婦人科医、小児科医)およびその他の医療従事者を配置し、外来診療を 24 時間対応で行い、病床 30 床を備え、臨床検査、X 線検査等のサービスを提供)400 施設が存在する[12]。

長寿化インド計画(Ayushman Bharat)では、現在の HSC や PHC をヘルス&ウェルネスセンター(HWC)に転換し、「治療までの時間」を 30 分以内とすることを原則に、住民により近い場所で包括的なプライマリーケアを提供する方針とされている[11]。

E. 結論

PPP は各国で取組み状況は異なるものの、その適切な運営を確立することにより、保健医療分野においても有効である。新型コロナウイルス感染症蔓延によって、公的機関と私的機関の連携は益々重要度を増している。“誰も取り残さない”ユニバーサルヘルスカバレッジを達成するためには、施設型の医療サービスにおける PPP のみでなく、地域におけるプライマリーヘルスケアレベルにおいても実現する必要がある。

PPP の進展や有効性は、各国の基盤的な法整備状況等が大きく関与している。世界銀行等の国連機関による援助がある一方で、サービス提供側の運営や人材育成、公平性や質、国のサービス全体への効果について、さらに検討する必要がある。アジア諸国が抱える保健課題は感染症のみならず NCD (非感染性疾患) や高齢化

の影響も大きいことから、各国において優先度の高い保健課題を中心に有効な PPP のあり方の検討が求められる。施設型の医療サービスや地域におけるプライマリーヘルスケアサービスなど、各国の実状に応じた PPP 構築のため、システム全体を俯瞰した対応が期待される。

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H.知的財産権の出願・登録状況

なし

Public–private partnerships for health care infrastructure and services: policy considerations for middle-income countries in Europe



WHO Barcelona Office for Health Systems Financing

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Public–private partnerships for health care infrastructure and services: policy considerations for middle-income countries in Europe

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Abstract

There is increasing interest in using public–private partnerships (PPPs) to mobilize funds for and enable reforms of health systems. This report provides a review of PPP models currently being used or considered in the WHO European Region. It finds that, in comparison with other models of engagement with the private sector, PPPs have led to good outcomes in terms of post-contractual cost-certainty, but also higher transaction and financing costs. Securing value for money means selecting the right projects, reflecting their degree of priority for the health system as a whole (allocative efficiency) and implementing these effectively (technical efficiency). PPPs should be used only when they represent the most cost-effective solution compared to other procurement options and where the capacities needed to plan, design, negotiate and monitor long-term and complex transactions are readily available. To minimize fiscal risks, ensure the integrity of procurement processes and safeguard the public interest, robust institutional checks and balances need to be in place.

Keywords

PUBLIC PRIVATE PARTNERSHIPS
PRIVATE SECTOR
HEALTH FINANCING
CAPITAL INVESTMENTS
MIDDLE-INCOME COUNTRIES

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Abbreviations

| | |
|------|--|
| EBRD | European Bank for Reconstruction and Development |
| EIB | European Investment Bank |
| IFC | International Finance Corporation |
| IMF | International Monetary Fund |
| MES | managed equipment service |
| MICs | middle-income countries |
| PPPs | public-private partnerships |

Executive summary

Middle-income countries (MICs) in the WHO European Region face a number of common policy challenges that reduce their capacity to improve population health. Prominent among these are legacy issues that drive inefficiencies in health expenditure, including lack of capacity at primary care level, an excess of hospital and mono-profile specialist facilities, obsolescence of infrastructure, and high and rising out-of-pocket payments. Sustained investment and structural reform are required to address these challenges.

In many countries, there is a perception that public–private partnerships (PPPs) can play an important role in this regard, partly because they can create a (superficial) relaxation of the public capital budget constraint by leveraging private financing. This report aims to examine the empirical experience of PPPs in the MICs of the Region to provide governments and other health system stakeholders with evidence on which to base their policy frameworks in relation to PPPs and their role in capital investment strategies. In particular, the report is focused on three key questions.

1. What PPP models are being used or actively considered by MICs in the Region?
2. What are the costs, risks and benefits of these models?
3. What actions can governments in the Region take to optimize the use of PPPs?

In most countries of the Region, the PPP agenda is highly centralized, with policy formulation led by ministries of finance, and then – in effect – transplanted into the ministry of health, and from there to individual regional or local authorities. In many cases, this leads to a prioritization of form over function, as policy analysis begins with the assumption that PPPs will be used and proceeds to identify service areas/localities that may provide viable opportunities for them. Instead, investment decisions should come first and procurement decisions second. However, capital projects should be prioritized according to a plan for reconfiguration of the health estate by, for example, responding to a lack of capacity at primary care level and addressing excess capacity and/or fragmentation at secondary and tertiary levels.

Once a prioritization plan is in place, decisions about the mode of procurement/financing should be informed according to a clear assessment of the costs, benefits and risks associated with alternative options. As noted, PPPs are often seen as a means of mobilizing

additional capital; by utilizing private finance, they allow for the deferral of the budgetary recognition of capital expenditures, whereas, with conventional procurement (in which the construction/equipping project is tendered independently of facilities management/maintenance, services continue to be provided by the public sector, and funding for capital is provided by government through, for instance, grants or loans to public authorities involved), the up-front capital expenditures are recognized as they are incurred.

However, PPP contracts signed today will still place a significant call on public budgets tomorrow (once the associated facilities, equipment and services are established, and the bill must be paid). Consequently, their use should be informed by a clear strategic plan for the reconfiguration and modernization of the health estate (the investment decision – whether to invest or not in a given project) and identification of how to deliver this in a way that maximizes value for money and safeguards the future financial sustainability of the health system (the procurement decision – whether to use a PPP or conventional procurement, as defined above).

To address the latter question, a large evidence base exists on the use of health sector PPPs in high-income countries (notably for Australia, Canada, Italy, Portugal, Spain, the United Kingdom and the United States of America). This evidence demonstrates that:

- post-contractual cost overruns tend to be lower under the PPP route than under alternative procurement routes;
- standards of maintenance tend to be higher in PPPs, as private operators are incentivized to ensure that physical assets (buildings and equipment) are fully available and at the level of quality outlined in the contract (whereas maintenance of purely public assets tends to be neglected, especially, but not only, in periods when budget constraints are strict);
- transaction and financing costs tend to be higher – for example, the private operator’s weighted average cost of capital will normally be a multiple of the interest rate on the government’s debt, indicating that in financial terms, deficit financing is a lower-cost option for governments; and
- the obligations created by PPPs for the public sector and other health system stakeholders are debt-like in that they cannot legally be avoided or adjusted and can undermine the financial sustainability of health systems.

What PPP models are being used or are being actively considered in the MICs of the Region?

In the health sector, PPPs involve a long-term contract between a private sector entity and a government entity for the provision of health facilities, equipment and services. In general, the contract is designed to ensure that the private entity bears significant risk and managerial responsibility, and that its remuneration is tied to its performance. These features are designed to ensure limited variation in the prices paid by public authorities and/or service users once contracts have been signed. In addition, a central characteristic of PPPs is that they bundle together a range of project functions (such as facility design, build, finance, maintenance and operation). This creates the potential for economies of scope to be realized by the private operator – assuming the original procurement process was competitive, this may reduce the prices paid by authorities and/or service users. There are different models of PPP, however, incorporating different assets, project functions and payment mechanisms, and featuring different combinations of costs, risks and benefits. This report focuses on three such models:

- **Model 1**, specialized clinical/diagnostic services PPPs, in which a public entity contracts with a private operator for delivery of specialist equipment and clinical services (such as dialysis, radiotherapy and day surgery) or diagnostic services (like laboratory services, imaging and nuclear medicine);
- **Model 2**, health facility PPPs, in which a private operator manages the design, build, financing and operation of health care facilities (such as hospitals, ambulatory care facilities, polyclinics, primary care centres and maternal and paediatric clinics) while management responsibility for clinical services remains in the public sector; and
- **Model 3**, so-called integrated PPPs, in which a private operator manages the design, build, financing and operation of health facilities (such as hospitals, ambulatory care facilities, polyclinics, primary care centres and maternal and paediatric clinics) alongside a defined range of associated clinical services.

What are the costs, risks and benefits of these models?

Experience in the Region demonstrates that the three models present different combinations of costs, risks and benefits.

Model 1 can in principle enhance the scope and quality of specialist medical infrastructure, equipment and services that are available to the general population when, for instance, relevant capacity is lacking in the public sector, and cannot easily be established in the required timeframe. Safeguarding allocative efficiency, however, requires detailed assessment of the net benefits of allocating additional public funds to the service areas to be targeted, compared to alternatives. There is a danger that additional spending on relatively low-value, high-tech services will erode fiscal space for additional low-tech, high-value services (such as those relating to chronic conditions such as asthma, diabetes and hypertension) at the expense of allocative efficiency.

In terms of cost–efficiency, the opportunity costs of procurement through Model 1 PPPs should be compared to alternative procurement routes (such as direct public sector investment and service provision, or more routinized contracting arrangements administered by a social/national health insurance agency or governmental purchaser). While quantitative data are absent, interviews completed for this report suggest that Model 1 PPPs are associated with higher transaction costs and/or per capita/per session prices than these alternative forms of provisioning.

Use of Model 2 is largely driven by the superficial benefits of private financing – its apparent ability to defer and smooth out the budgetary recognition of capital costs. From a public interest point of view, however, this feature of Model 2 is undesirable: it can, for example, create perverse incentives within the public sector, in particular a willingness to overcommit future government revenues by, for instance, entering into contracts that will in the long term prove to be unaffordable for the public sector and other health system stakeholders. This may be driven by a combination of technical errors (related to the inherent difficulty of predicting the future), optimism bias (a non-deliberate tendency to underestimate costs/overestimate capacity to bear costs) or strategic misrepresentation (a deliberate effort to underestimate costs/overestimate capacity to bear costs).

Whatever the cause, the international evidence shows that the resulting underestimation of future costs or overestimation of the health authority's ability to service them has real, and sometimes severe, consequences for health systems. Yet in the absence of such behaviour by public authorities, this model can generate cost–efficiencies if the public authority:

- is able to generate strong competition in procurement;
- specifies its requirements in a clear and operationally relevant manner in the contract; and
- verifies (through monitoring of performance against the contractual provisions) that the operator is meeting these requirements in practice.

Where these things are not possible, or are not achieved, the risk transfer on which value for money depends will be undermined.

Compared to conventional public procurement, and to the standard forms of Models 1 and 2 as outlined above, PPPs of Model 3 can mobilize additional private financing for recurrent expenditures while enhancing the availability of medical equipment and clinical services to persons in the targeted populations. The costs to government (and service users) can be high, however, and both forecasting of, and budgeting for, these can be extremely challenging. As with the other PPP models, risks to affordability and value for money can be severe and difficult to mitigate via contract design. In this case, however, the risks are greater in magnitude and the potential impacts more severe due to the inherent difficulty of specifying long-term requirements for complex clinical services (and monitoring them adequately). In addition, equity of access and financial protection can be compromised when – as is being considered in some health system contexts – user fees are to be introduced as a major source of private operator revenues.

What actions can governments take to make the most effective use of PPPs?

While each of the three models presents a different combination of costs, risks and benefits, certain principles of good practice apply equally to all. Specific recommendations for Member States include the following.

1. Ensure that the investment decision is separated from the procurement route decision and that these decisions are made in the right order. The investment decision comes first. It is concerned with questions such as what is needed to deliver the right combination of services (those covered in a State Guaranteed Benefit Package or similar, for instance) in the right kind of facilities (primary, secondary, or tertiary facilities)? Only once such questions are addressed can a decision be taken about the relative value for money of alternative procurement routes. The latter decision is concerned with the question: what procurement route will deliver the intended outputs with the most advantageous combination of costs, risks and benefits?
2. Incorporate in the procurement route decision an objective recognition of long-term financial costs and risks to the public sector, health systems and (where user fees are to be introduced/expanded in the post-contract arrangements) household budgets. Financial risks relate to uncertainties around what the future costs will be in real terms and the ability of the ultimate payers to afford them without detriment to their own financial position. Experience to date has demonstrated a willingness to use PPPs even in cases where the model is unlikely to deliver best value for money, and a propensity to overcommit future revenues by, for example, entering into contracts that are too costly for the public authorities and/or service users that ultimately will pay the bill. Given the tendency of public authorities to engage in forms of strategic behaviour, it is crucial that regulations governing the conduct of financial appraisals are robust and subject to independent scrutiny. For larger schemes, scrutiny should be undertaken by well resourced independent agencies, such as the supreme audit institution of the country.
3. Invest in the capacity required to define a strategic plan for the health estate in which all investment decisions are embedded. In view of the importance of recommendations 1 and 2, achieving success in capital investment programmes – including those in which PPP is implicated – requires strong capacity within government to undertake rigorous needs-based capital planning to define a strategic plan for the health estate in which all investment decisions should be embedded. These functions should not be outsourced to external agencies – they are core functions of government and are essential to the long-term technical efficiency of the health system. Nor are they well suited to so-called PPP units, which require more specialist skills, as outlined below.
4. Invest in the capacity required to deliver the strategic plan. Finally, there needs to be strong contracting capacity in government, ideally in the form of a specialist procurement unit, to support local health authorities in running competitive procurements, designing effective contracts and establishing structures to ensure assiduous monitoring of performance. Without such capacities in place, PPPs will not deliver benefits in respect of risk transfer that are sufficient to offset this

procurement model's higher transaction costs and financial costs. Such capacities should be complemented by robust institutional checks and balances to ensure transparency in decision-making, minimize fiscal risks and maintain the competitive integrity of procurement processes.

1. Introduction

Middle-income countries (MICs) in the WHO European Region face a number of common health system challenges. Prominent among these are infrastructure-related challenges that undermine organizational efficiency at system level, including:

- an oversupply of hospital capacity;
- an undersupply of primary care and diagnostics capacity;
- outdated facilities, technologies and ICT;
- lack of integration between primary, specialized and hospital care; and
- inefficient use of energy and inadequate waste management.

A sustained programme of capital investment is required to address these challenges. In many countries, there is a perception that public–private partnerships (PPPs) can play an important role in this regard, partly because they can create a (superficial) relaxation of the public capital budget constraint by engaging private financing. This interest is illustrated in recent legislative changes in Ukraine (Parliament of Ukraine, 2021) and Uzbekistan (Parliament of Uzbekistan, 2019) designed to enable the systematic deployment of PPPs in the health sector.

This report focuses on transaction-specific PPPs, which are distinct from other forms of public–private engagement such as those described in Box 1, and also more routinized forms of contracting (see section 3). A transaction-specific PPP involves a long-term contract between a public authority and a group of private investors, normally constituted as a special purpose vehicle. The contract sets out the terms under which the consortium will ensure the availability of health care facilities, equipment and services (clinical and/or non-clinical) to the public authority. The consortium manages the design, construction and financing of the required facilities and equipment and subsequently manages a range of services over the contractual period. In return, it receives a stream of payments from the authority, in some cases supplemented by user fees. The payment amounts are determined through:

- a competitive bidding process during the earlier phases of procurement; and
- a bilateral negotiation process during the later phases of procurement.

These payments are drawn on by the consortium to pay its costs (capital and operational costs, including profit margins), make scheduled payments of principal and interest to its lenders, and a supply a return on equity to its shareholders.

While PPPs mobilize additional (private) funds for capital investment, they therefore require a commitment of the public sector revenue budget over a long period.

Box 1. Placing PPPs in the broader context of private sector engagement

This report focuses on a specific form of public–private sector engagement – the transaction-specific PPP, of which there are three main models. It does not seek to cover the many other ways in which governments seek to engage private sector entities to influence their incentives and behaviours by, for instance, safeguarding/promoting population health objectives.

It is recognized by WHO that governments need to have a strong public policy framework in place to address the challenges the private sector can create and to harness the opportunities it can present. Such a framework may include:

- regulations that require private sector entities to report into the routine health information system;
- licencing to define and enforce the conditions of market entry and to ensure ongoing oversight of, and accountability for, performance; and
- strategic purchasing of private sector entities' capacities to, for example, enable specific populations to access health services outside of the public sector on a free or low-cost basis.

This report makes a number of observations about the costs, benefits and risks of transaction-specific PPPs. By no means are these observations generalizable across the other modalities of engagement. In addition, it should be noted that the specialist skills required for a government to manage the costs, benefits and risks of PPPs are different to those required for effective implementation of other market interventions, so it will rarely be the case that the PPP unit within a ministry of health or other relevant state agency is best placed entity to define/manage the wider policy framework for private sector engagement.

As PPP contracts signed today will place a significant call on public budgets tomorrow (once related facilities, equipment and services are operational), their use should be informed by a clear strategic plan for the reconfiguration and modernization of the health estate (the investment decision – whether to invest or not in a given project) and identification of how to deliver on this in a way that maximizes value for money and safeguards the future financial sustainability of health systems (the procurement decision – whether to use a PPP or conventional procurement in which construction/equipping is tendered independently of facilities management/maintenance, services continue to be provided by the public sector and funding for capital is provided by government through, for instance, grants or loans to public authorities involved). To address this latter question, a large evidence base exists on the use of health sector PPPs in high-income countries (notably for Australia, Canada, Italy, Portugal, Spain, the United Kingdom and the United States of America) (Roehrich et al., 2014).

This evidence demonstrates that:

- post-contractual cost overruns tend to be lower under the PPP route than under alternative procurement routes;¹
- standards of maintenance tend to be higher in PPPs, as private operators are incentivized to ensure that physical assets (buildings and equipment) are fully available and at the level of quality outlined in the contract (whereas maintenance of purely public assets tends to be neglected, especially, but not only, in periods when budget constraints are strict);
- transaction and financing costs tend to be higher and tend to result in considerable excess profits for private sector technical advisors and investors, meaning that in purely financial terms, deficit financing will often be a lower-cost option for governments than the cost of PPP financing (Hellowell, 2016); and
- the obligations created by PPPs for the public sector and other health system stakeholders are debt-like in that they cannot legally be avoided or adjusted and can undermine the financial sustainability of health systems.

In addition, the evidence shows how the financial sustainability of health systems can be threatened if the opportunity to mobilize private capital leads to poor investment decision-making (that is, investment of the wrong scale and/or on the wrong assets) by health authorities (Hellowell & Vecchi, 2015).

Experiences in MICs, however, are less well documented. This report seeks to address this gap. It draws on: a synthesis of theoretical and empirical research on PPPs; documents published by key policy stakeholders at national and international levels (documents in the public domain and those obtained through personal communication); and key informant interviews with experts with direct experience of working on PPPs in multiple MICs (see acknowledgements section) to identify key considerations for the use of PPPs in the Region, focusing on three research questions in particular.

1. What models are being used or are being actively considered in the MICs of Europe?
2. What balance of costs, risks and benefits is presented by these models?
3. What actions can governments in the Region take to mitigate the costs and risks of PPPs?

The report is structured accordingly, and a final section provides a summary of recommendations.

1. Supporters of PPP sometimes imply that post-contractual cost certainty can be taken as an overall arbiter of value for money. However, this is incorrect: it is evident that a project delivered on budget (meaning costs for the public sector do not exceed those outlined in the contract) can still represent poor value for money if the authority overpaid for the risk transfer mechanisms that led to that outcome.

2. What models are being used or are being actively considered in the MICs of Europe?

PPPs share a number of common features, the defining ones being:

- the use of private financing for capital (and sometimes recurrent) expenditures;
- the bundling together of outputs and activities within the scope of a single contract between a public and private sector entity; and
- the sharing of costs, risks and benefits between the contracting parties.

In the WHO European Region, as elsewhere, PPPs have been used to address a number of objectives, including:

- the harnessing of private sector resources (such as capital, human resources and/or expertise) by the commitment of a defined public sector and/or user-fee revenue stream;
- the need to overcome constraints on public sector capital budgets and thereby enable additional expenditures on health facilities, equipment and services;
- the opportunity to leverage new construction and facilities management/maintenance skills (some of which are only found in the private sector and which may be difficult to fully leverage via public procurement) to improve the quality and efficiency of health care assets/ services; and
- the opportunity to enhance the transparency and value for money of government procurement processes.

Models of PPP differ, however, varying in terms of the scale, nature and timing of the expenditures and risks involved. Table 1 provides an overview of three PPP models that the document review and interview data demonstrate have been used in the MICs of Europe. Table 1 notes their key economic features and provides a brief summary of the key opportunities and challenges that relate to each of them. More detailed commentary on each of these models is then provided in section 3 (see below).

Table 1. Types of health sector PPPs used in MICs in the WHO European Region

Note: no quantitative data exists on the number of health sector PPPs in the Region.

Source: author's analysis, based on International Finance Corporation (2021).

| PPP model | Economic features | Opportunities and challenges |
|--|---|---|
| MODEL 1 Specialized clinical/ diagnostic services | The public sector identifies specialist services (such as dialysis, radiotherapy and day surgery) or diagnostic services (like laboratory services, imaging and nuclear medicine) to be provided by a private operator. The private operator finances up-front capital costs. Payment to the operator is made by government on the basis of an annual per capita or per treatment model (or a combination), and in some cases users' co-payments. | <p>Opportunities</p> <p>The model can enhance the availability of medical facilities, equipment and services for the population(s) targeted, while improving the quality of clinical services and/or the efficiency of their provision.</p> <p>Challenges</p> <p>High transaction costs and/or per capita/per session prices are probable relative to other modes of delivery, including other methods of contracting with the private sector. The model may influence and perhaps distort resource allocation priorities unless projects are selected specifically to address identified gaps in the availability of prioritized services (as defined by the essential health service package, for instance).</p> |
| MODEL 2 Health facility | The private sector partner manages the design, build, financing and operation of health facilities (such as hospitals, ambulatory care facilities, polyclinics, primary care centres and maternal and paediatric clinics). Management of clinical services remains in the public sector. Contracts typically last for 30+ years and may include outsourcing of so-called soft facilities management (like catering, cleaning and laundry). Payment to the private operator is made by government, usually on the basis of a performance-adjusted availability charge. Co-payments by users for some limited costs – such as parking charges – may also be in place. | <p>Opportunities</p> <p>The model can enable access to private finance for capital expenditure, circumventing public budget constraints and enabling additional investment in the health care estate and equipment. It can also enhance the efficiency of capital procurement, with an emphasis on establishing certainty of public sector costs over the lifecycle of the assets.</p> <p>Challenges</p> <p>Substantial government capacity and a competitive market environment – one that enables a competitive procurement process – are required to secure and sustain value for money over the duration of the contract. In practice, costs can be difficult to forecast and budget for ex ante, and the opportunity to defer and smooth out the costs of capital investments presented by private finance may lead to an overcommitment of future public sector funds. As a result, there are risks to affordability ex post, such that the financial sustainability of health systems can be compromised (Hellowell & Vecchi, 2015).</p> |
| MODEL 3 Integrated | The private operator manages the design, build, financing and operation of health facilities (such as hospitals, ambulatory care facilities, polyclinics, primary care centres and maternal and paediatric clinics) and the full range of associated clinical services on a long-term basis, typically ranging from 10–30 years. Payment to the private operator is made by government, usually on the basis of a prospective global budget that includes the operator's cost of capital, and also co-payments by users. | <p>Opportunities</p> <p>The model can mobilize private financing for both capital expenditure and recurrent expenditure (if user fees are involved), enhance the efficiency of government procurement with an emphasis on lifecycle costs, and enhance the range and quality of medical equipment and clinical services to persons in the targeted populations.</p> <p>Challenges</p> <p>Substantial government capacity alongside a market environment that enables competitive bidding are required to secure and sustain value for money over the duration of the contract. Contracting authorities must be able to specify clinical service requirements and monitor that these are delivered in practice. Failure to do so places the quantity and quality of clinical services at risk. Market prices can be high due to a lack of qualified bidders and high transaction costs – related costs are difficult to forecast and budget. The risks to affordability – and thereby to the financial sustainability of health systems – can be high in magnitude and difficult to mitigate in practice. Equity of access and financial protection will be compromised if user fees are a major component of the private operator's revenue stream.</p> |

3. What balance of costs, risks and benefits do PPPs present?

3.1 Model 1. Specialized clinical and diagnostic services

In this model, the private operator commits to deliver:

- a specified range of clinical and/or diagnostic facilities and/or equipment; and
- a specified range of services to a defined number of patients over a multi-year period (often 4–10 years, with longer durations for more capital-intensive contracts).

Typically, private operators assume responsibility for: renovating and/or equipping facilities; maintaining and operating equipment; procuring all medical supplies; recruiting, training and managing all staff; and treating patients. Government payments to the operator can be based on prospective global budgets, capitation payments, fixed fees-for-service or case-based payment (which may be adjusted annually). There is also, in some cases, a defined schedule of user charges.

Model 1 PPPs are in some ways similar to other contracting arrangements used by governments and other public authorities, such as social/national health insurance agencies that have included private operators in the network of providers eligible to receive pre-paid/pooled funds. There nevertheless are also important differences, summarized in Table 2, such that PPPs tend to be associated with much higher transaction costs than other forms of contracting.

Table 2. Distinguishing Model 1 PPPs from other forms of private sector contracting

a. Where a government or health agency has – or plans to have – a substantial programme of such contracts in place, it may attempt to reduce the transaction costs of individual contracts by standardizing such variables.

| Function | Routine private sector contracting | Model 1 PPP contracts |
|---|--|--|
| How contractors are selected | Contracts are allocated to any willing provider that meets set criteria (as defined, for example, through accreditation/empanelment/certificate of need arrangements). | Contracts are entered into with winning bidders – in principle, those that have offered the best terms (price/quality) during the competitive procurement process. |
| Type of competition involved | Competition takes place in the market – that is, after contractual arrangements have been established. | Competition takes place for the market – that is, before contractual arrangements have been established. |
| How outputs (and their range and volumes) are defined | Service volumes are defined by demand among patients within the specified group (such as residents in a defined locality enrolled in a specific insurance scheme). The range of services, quality standards and fee structure/amounts to be paid to contractors are determined at health system level. | Service volumes are determined by mechanisms set out in the contract (these may be volume-based but more often are availability-based, or a combination). The range of services, quality standards and fee structure/amounts to be paid to the contractor are specific to the transaction, and determined during the procurement process. ^a |
| Basis for payment | Money follows the patient. | Patients follow the money. |
| Benefits | <p>The contract can be light touch (as accreditation/empanelment criteria set minimum standards for issues such as provider competencies/equipment standards), reducing transaction costs.</p> <p>Incentives to provide high-quality care flow from financial incentives to attract and maintain patient demand, assuming that market conditions enable consumer choice/provider competition.</p> | The contractor has strong financial incentives to: deliver construction on time and in line with defined standards; and after completion/provision of the capital assets, operate them at the level of quality defined in the contract (as failure in either case may lead to delayed/reduced payments and associated financial losses). |
| Costs and risks | <p>A lack of detailed performance criteria and enforcement mechanisms may lead to gaps or weaknesses in the quality/quantity of service delivery.</p> <p>Performance relies on the conditions of entry and the market environment, including the robustness of the regulatory apparatus and the appropriateness of payment mechanisms and prices – where these are inadequate or ineffective, performance pressure on provider(s) is limited/inadequate, at the expense of patient care and value for money.</p> | <p>Contracts need to be lengthy and detailed, and monitoring arrangements extensive. For both reasons, transaction costs will tend to be very high. This may result in risks to value for money and affordability of contracts because of the direct burden of transaction costs and the downward pressure such costs can exert on the level of competition during the procurement process.</p> <p>Establishing comprehensive contracts is challenging. Any major gaps or limitations in contracts may compromise the contractor's incentive to perform well, at the expense of value for money for the public sector.</p> |

In principle, Model 1 PPPs have the potential to:

- enhance the availability of high-quality specialist medical infrastructure, equipment and services for the general population;
- improve health authorities' procurement of equipment, with an emphasis on reliability of operations, and strengthen the predictability of costs to government over the lifecycle of the assets;
- enable the development of new models of care through, for instance, hub and spoke models that improve organizational efficiency;
- allow the public sector to benefit from the skills of specialist international players, of whom there are many in key areas such as dialysis, radiotherapy and day surgery; and

- enable health authorities to attain experience and knowledge in procuring, designing and monitoring contracts for complex health services – building capacity for more institutionalized approaches to contracting and/or more complex forms of PPP contracting.

Model 1 has been used in a number of MICs over the course of the last two decades, most commonly for haemodialysis. There is good evidence from recent experiences in Kyrgyzstan, the Republic of Moldova and Romania that the model can be used to expand the availability and distribution of modern medical equipment and improve access to high-quality services for targeted populations. PPPs can also stimulate the development of a market in the private provision of clinical services that can (in the longer term) enable more service provision to occur outside of hospitals. This has been the case for haemodialysis in Romania, in which an initial programme of PPPs led to multiple short-term, and more flexible, contracts with dialysis providers that were entered into directly by the insurance fund – an experience that also seems to have been replicated in the Republic of Moldova and, most recently, in Kyrgyzstan (see Box 2).

However, evidence on value for money from a contract-specific perspective (asking whether government costs may have been lower or the quantity/quality of facilities and services higher by using other modalities) is limited and is constrained by the absence of a clear counterfactual, or clear cost benchmarking. It nonetheless is apparent that transaction costs tend to be high relative to other forms of delivery, including other types of delivery under contracts such as direct contracting of private sector dialysis providers by insurance funds or state purchasers and/or managed equipment service (MES) leases undertaken by autonomous health care providers. Indeed, in some countries, the resulting costs may be affordable only if governments are able to access external support through, for example, development partners. The transaction costs faced by private sector bidders also tend to be high, increasing bid prices and limiting the number of bids, contributing to higher contract prices and/or service fees.

In analysis of value for money, such costs need to be considered alongside any operational efficiencies that the PPP model is expected to generate.

Box 2. Haemodialysis PPPs in Kyrgyzstan

Legislation to regulate the use of PPPs in the health sector was enacted in Kyrgyzstan in 2013. From that year, the Ministry of Health worked with development partners to prepare feasibility studies for a project to deliver haemodialysis capacity in the country. Initially, the level of interest from international market players was considerable, with expressions of interest from companies headquartered in 12 different countries, but several companies withdrew over the course of the procurement process, reducing the degree of competitive pressure. The Government eventually prequalified two bidders, both of which submitted a bid. The project was awarded to Fresenius, a German company. Fresenius signed a 10-year contract to finance, lease and operate four haemodialysis centres offering a minimum of 75 000 dialysis sessions, train health professionals from several public centres and develop home-based peritoneal dialysis services. As of April 2022, this contract was still in place, though the price per session (approximately US\$ 100) is now viewed by the Ministry as higher than current market rates.

Reflecting on the transaction and operational costs of the PPP, policy-makers have opted to diversify their approach to private sector engagement in future, including in the form of direct contracting by the Mandatory Health Insurance Fund with haemodialysis providers on the basis of one-year contracts. These contracts are regarded as having a number of advantages over PPPs, including shorter procurement periods, greater flexibility in service provision and lower contract periods and costs. This experience helps to demonstrate that where a mandatory health insurance fund exists and is capable of acting as a strong strategic purchaser, alternatives to PPPs can be found. In some cases, these alternatives represent a more affordable solution or better value for money, taking into account the up-front transaction costs and the long-term costs to government.

In addition to matters of transaction costs, finance costs and per capita/per treatment costs, it is important to consider the broader issue of allocative efficiency, which refers to whether the right services are likely to be purchased through Model 1. It is important that services are selected according to their degree of priority for the health system as a whole as reflected in, for example, the package of essential services covered by the national health insurance scheme rather than their amenability to be provided under a particular modality. It is apparent that services such as dialysis, radiotherapy and day surgery can be delivered under Model 1, but further case-specific analysis is needed to consider whether they should be. Analysis should consider the need for developing additional capacity in these areas and the net benefits of this private sector engagement modality in comparison to others (such as via subcontracting by public providers or direct contracting of private providers by a strategic purchaser). It should also be noted that the services purchased under this model are likely to represent only one input into a care pathway, and not a whole case episode.

There should be clear guidelines with referral criteria on the types of patients eligible to receive the related services, alongside robust monitoring to guard against opportunistic behaviours by providers.

Examples of projects of this type under consideration in the WHO European Region include:

- establishment of a new radiology centre at the National Cancer Institute, Kyiv, Ukraine; and
- establishment of three haemodialysis care centres in three regions of Uzbekistan – the city of Tashkent, the Republic of Karakalpakstan and the Khorezm region (in operation from April 2022).

3.2 Model 2. Health facility PPP

In this model, the private operator manages the design, construction, financing and operation of health facilities (such as hospitals, ambulatory care facilities, polyclinics, primary care centres and maternal and paediatric clinics). The name refers to “health facilities” because the public sector retains management of all clinical services and employment of all clinical staff. The model therefore focuses on the modernization of infrastructure and related activities, such as maintenance, rather than clinical services, although it can also have a major impact on services. Contracts typically last for 30 years or more – a period of time set to reflect the lifecycle of the contracted facilities – and may include outsourcing of some so-called soft facilities management (such as catering, cleaning and laundry), but this has been less common in recent years. Payment to the private operator is made by government, usually on the basis of availability (that is, the extent to which the specified facilities at the required standard are available for public sector use) and may be supplemented by user fees for some services (such as parking fees). Key features of this model include:

- long-term contracts – typically 30 years or more and up to 60 years in some cases;
- the sharing of risks between the public authority, private operator and investors/creditors;
- contracts based on a specified payment mechanism (the so-called availability charge), analogous to a prospective global budget, albeit one that can be adjusted according to performance;
- government ownership of the assets at the end of the contract, at which point facilities and equipment must be in reasonable condition; and
- bundling of infrastructure and non-clinical services within a single transaction.

Payment to the private operator is made in full only if the specified infrastructure and services are made available in accordance with the standards set out in the contract. The operator therefore has a

compelling incentive to deliver the specified infrastructure on time and to budget and to ensure that it is constructed and, once completed, maintained well, remaining fit for purpose throughout the long contract period. Achieving this degree of risk transfer, however, is dependent on a number of factors, including the ability of the authority to specify its needs in a legally enforceable and operationally practicable contract and to verify that the operator is meeting these needs in practice. The authority must also be able to run a competitive procurement, such that bidders are forced to ensure that bid prices approximate to their marginal costs of production, eliminating excess profits and enabling the state to capture a share of the gains from efficiencies related to risk transfer and the economies of scope engendered by the bundling of activities (design, build and maintenance, etc.).

Consequently, achieving benefits from this model requires that the authority has (or at least has access to) a high level of contracting expertise.

Even where such conditions hold, benefits may in practice be offset by the high transaction and financing costs that are, as the empirical evidence shows, generic features of the model. For example, Dudkin & Vällilä (2005) showed that a sample of social infrastructure PPPs undertaken in the United Kingdom had higher precontractual transaction costs than would have been generated under conventional public sector procurement. These amounted to about 10% of the capital expenditure value of the project on average for both state authorities and the winning private sector bidders, and up to 5% of that value for losing bidders. The authors attributed these additional costs to the long-term nature of PPPs, the complexity accruing to bundling of functions and the emphasis placed on risk transfer, all of which increase the costs of procurement across parties. In addition, transaction costs accrue to private financing itself – for example, the additional fees that equity investors must pay to their lenders and to sellers of financial derivatives that are used to hedging against inflation and interest rate risks. These fees add to the operator's costs and are then factored into the availability charge to be paid by the authority. Such transaction costs have no direct parallels in alternative forms of procurement. Finally, the rates of return on private debt and equity add to the costs of PPP projects. A private operator's weighted average cost of capital will normally be a multiple of the interest rate on the government's debt (Hellowell & Vecchi, 2012).

Many governments are attracted to this form of PPP for economic rather than financial reasons. The model allows the budgetary recognition of capital expenditures to be:

- deferred (the government only pays once the facilities are operational); and
- smoothed out (the up-front costs are repaid across the contractual term in a manner similar to a residential mortgage).

The ongoing costs of PPPs cannot be avoided indefinitely, however. The future costs of such PPPs are, in effect, debt-like in their structure. For such reasons, international accounting rules have made it difficult for the obligations under PPPs to be accounted in so-called off-the-budget

sheets (Eurostat & European PPP Expertise Centre, 2016). Even where the current accounting rules allow for this, as appears to be the case in many MICs in Europe, it is apparent that accounting definitions are subject to periodic revision. It is also possible that the debt will transfer back to the on-budget sheet at some point in future. The opportunity to defer and smooth out costs through PPPs can create budgetary incentives in the public sector that may undermine the financial sustainability and service capacity of health systems because of:

- a willingness to use PPPs even in cases where the model is unlikely to deliver best value for money (that is, where the benefits of risk transfer and bundling are more than offset by higher transaction and financing costs, as described above); and
- a propensity to overcommit future revenues by, for example, entering into contracts that are too costly for the public authorities and/or service users that ultimately will pay the bill.

Reflecting these concerns, current advice from the International Monetary Fund (Irwin, Mazraani & Saxena, 2018) is that governments should avoid overinvestment by:

- developing and implementing clear rules for their use, including financial analysis to determine affordability over the full period of the contract;
- identifying, quantifying and disclosing all PPP-related risks to government; and
- reforming budget frameworks and government accounting procedures to capture all future costs in a comprehensive way, including actual and conditional liabilities (those that relate to changes in macroeconomic variables such as inflation, interest rates and exchange rates, all of which can have a material impact on the affordability of PPP schemes to payers) (Box 3).

In addition, when a health ministry expects to make large-scale use of health facility PPPs, it may be beneficial to establish an overall “control total”. This is a defined limit to the total value of all future PPP liabilities that can be entered into in a given period and is, in effect, an attempt to establish an overall credit limit for public authorities. While a control total does not eliminate the budgetary incentive to use PPPs over other forms of procurement (at least until the total has been reached), it may help to stimulate a shift from a medium-term to a long-term budget-planning horizon and more disciplined prioritization of investments.

Box 3. Health facility PPPs in Türkiye

PPP contracts have been signed for 20 so-called city hospitals in Türkiye, with a total capital expenditure value of US\$ 11 billion. Türkiye has become an important source of inspiration for the use of PPPs in Ukraine and other countries in the WHO European Region. This is part of a wider process in which a number of investors – including commercial banks and multilateral development partners such as the European Investment Bank (EIB), European Bank for Reconstruction and Development (EBRD) and the International Finance Corporation (IFC) – have been seeking to harness their experience of the PPP programme in Türkiye and apply it to other emerging markets.

According to recent media reports, however, the Ministry of Health has announced that there will be no further PPPs in the country and that all future hospital construction projects will be financed from government sources alone. The decision was taken after it emerged that payments for just 10 operational hospital PPPs accounted for some 27.8% of the Ministry of Health budget.

Key elements of the budgetary pressures created by the PPP programme in Türkiye include:

- the large scale of the projects and the public revenue commitments they involve; and
- exchange rate volatility aggravating the budgetary challenge, as public revenue commitments were tied to the value of the US dollar, meaning that as the Turkish lira depreciated against the US dollar, the proportion of the Ministry of Health budget (denominated in lira) allocated to PPP payments had to be increased.

Examples of projects of this type under consideration in the WHO European Region include:

- construction of a modern general hospital (based at the Emergency Hospital in Lviv, Ukraine), which is currently at the pre-feasibility stage;
- construction of an emergency wing for the Poltava Regional Clinical Hospital in Ukraine; and
- initiation of procurement processes for four Model 2 PPPs for multidisciplinary hospitals in the cities of Aktobe, Atyrau, Karaganda and Taraz in Kazakhstan.

3.3 Model 3. Integrated PPPs

In addition to the models described above, a third PPP model is being considered in some MICs (such as Ukraine) and is, in general, one of a menu of PPP options presented by development partners such as IFC, EBRD and the Asian Development Bank to country partners. Under this model, a private operator is tasked with building and maintaining new or rehabilitated facilities and managing the full range of clinical and non-clinical services in them, usually for periods of 10–30 years. Because this model combines infrastructure-related and clinical services, it is sometimes referred to as the integrated model.

As clinical services are delivered by the private operator, this model can accommodate user fees either as a minor or major component of operators' revenue stream. In such cases, public funding may be used for specific purposes (such as purchasing a certain volume of essential services and/or co-financing capital expenditures to address a so-called commercial viability gap). In either case, the model provides an opportunity for governments to increase private financing for recurrent expenditures (alongside capital expenditures) and, for the same reason, raises concerns in terms of equity of access and financial protection for patients.

4. What actions can governments take to make effective use of PPPs?

A number of conditions need to be met for PPPs – of any form – to be successfully implemented.

4.1 Determining the role of PPPs in shaping the provider network

As noted above, PPPs are a tool used to pursue a government’s strategic objectives. They do not constitute a strategy in themselves. Whether they impede or support the government’s strategic objectives is an open question – they might, and they might not. PPPs can only enhance the allocative efficiency of health systems if they are embedded in a strategic plan for the provider network – one that defines its future scale and configuration – and one that is informed by, and integrated into, the (often evolving) organizational, financing and purchasing strategies of the health care system as a whole.

While this may seem obvious, it is worth re-emphasizing. In most countries in the Region (as elsewhere), the PPP agenda is highly centralized, with policy formulation led by ministries of finance/economies (or equivalent). It then – in effect – is transplanted into the ministry of health (alongside departments responsible for the road, rail and energy projects that have also been prioritized under project finance/PPP programmes) and from there to individual regional or local authorities (Agency for Support of Public–Private Partnerships, 2021). This approach has been observed in multiple other countries and can lead to prioritization of form over function, with decision-making beginning with an assumption that PPPs will be used and the analysis focusing on how PPPs can be applied. In turn, this carries the risk that investment programmes become distorted away from the objectives set out at the beginning of this report, including the needed reconfiguration and modernization of the Region’s health estates. In addition, PPPs may be used for projects where they do not represent value for money, and this risk is amplified if local-level authorities or other contracting entities (often with limited capacity in PPP and contract management) are provided with subsidies or guarantees conditional on the use of PPPs specifically.

However they are financed, capital projects should be prioritized according to a plan for reconfiguration of the health estate by, for example, responding to lack of capacity at primary care level and addressing excess capacity at secondary and tertiary levels. Once a prioritization plan is in place, decisions about the mode of procurement/financing should be informed according to a clear assessment of the costs, benefits and risks associated with alternative options. As noted, PPPs are often seen as a means of mobilizing additional capital; by utilizing private finance, they enable the budgetary recognition of capital expenditures to be deferred (in comparison with conventional public financing of capital investment, for which up-front capital expenditures are recognized as they are incurred). In the long term, however, PPPs create debt-like obligations for the public sector (and, in the case of some models, also for patients). These need to be carefully and objectively considered through value-for-money analysis (which examines the opportunity costs of the PPP route

compared to alternative models) and financial analysis (which examines the impact of future fiscal obligations on the financial sustainability of the (national or local) health systems).

4.2 Financing the long-term costs of PPP contracts

In some countries in the Region, health facilities' capital and maintenance costs are funded through a different route to funding for services. For instance, it is common for infrastructure costs (maintenance and utilities costs) to be borne by regional or local authorities, while service costs are borne by health care payers. In such cases, it is important that local authorities' plan to pay more for the capital and maintenance costs of PPP facilities than in the rest of the health care estate. Such costs will often be higher in PPP facilities, even in cases where the contract has been implemented effectively by procurers, for two reasons:

- the capital expenditures committed by the private operator to develop the facilities will have to be re-paid, along with the required rates of return of its creditors; and
- the maintenance costs of the facilities may be higher, reflecting the incentives in PPP payment mechanisms to ensure high standards of maintenance through the lifecycle of the contract.

Public authorities will need to ensure they can afford such costs without compromising their ability to meet their other social obligations and without crowding out investment in service areas that are unlikely to be part of PPP projects, such as primary care.²

In other countries in the Region, the capital and maintenance costs of autonomous health care providers are funded through the tariffs for services, with no additional subsidy from local authorities. This adds a level of uncertainty to the budget-planning process for health care providers. For example, if the operator is paid an availability charge (which is unaffected by service volumes) while the service provider is paid a tariff per case, the provider's costs and revenues are mismatched. This complicates the affordability assessment before contracts are agreed and/or may lead to budgetary shortfalls after contracts are signed. Such a mismatch also creates risks to investors, as any shortfall in revenues of the health care provider may result in delays to payments to the operator, threatening its returns or even (in extremis) its solvency. To avoid the potential for such problems and to ensure that projects are bankable (meaning that private investors are willing to participate in them), the mismatch may have to be resolved at local, regional or even national level through, for example, guarantees that any shortfall in providers' ability to pay will be met by authorities at a higher level.

Whoever pays the bill, it is of core importance to limit the potential for overinvestment through PPPs – a risk related to the fact that private financing allows expenditure to take place now without that expenditure

2. In principle, health facility PPPs could be used to support capital investment in primary care networks. In practice, this is relatively rare, largely because the high transaction costs of PPPs – for both government procurers and private operators – are deemed to be too heavy for the small-scale facilities required for primary care provision. There are cases of integrated PPPs (in Maseru (Lesotho) and Valencia (Spain), for example) that have incorporated managed primary and secondary care facilities and services within individual transactions, but this is extremely rare.

scoring on the public budget (generating a kind of credit card effect, with predictable effects on the quality of investment decisions). Empirically, however, analysts often underestimate the future costs of PPPs (both direct and conditional liabilities) when conducting financial analysis. This may be driven by a combination of technical errors (related to the inherent difficulty of predicting the future), optimism bias (a non-deliberate tendency to underestimate costs/overestimate capacity to bear costs) or strategic misrepresentation (a deliberate effort to underestimate costs/overestimate capacity to bear costs). Whatever the cause, the international evidence shows that the resulting underestimation of future costs or overestimation of the health authority's ability to service them has real, and sometimes severe, consequences for health systems.

Mitigating risks to affordability requires national and/or other public authorities to ensure all plans for new projects are scrutinized by a source of independent scrutiny, such as national/municipal audit institutions. Official audits are required to establish that transactions will generate benefits in excess of their opportunity costs and need to include an assessment of the potential for costs to vary over the duration of the contract. Such variation can have a number of potential causes, many of them external to the contract itself. For example, exchange rate volatility may present a serious challenge to affordability over the longevity of the contract, as public revenue commitments tend to be tied to the value of an international currency; if the value of local currency falls in relation to that currency, the costs of PPP payments increase in real terms (see Box 3 describing the experience in Türkiye). This is also likely to be a factor in the private sector's assessment of investment risk.

4.3. Strengthening capacity to undertake effective PPP projects and programmes

As noted above, the decision-making process for all capital investment decisions, including those that are eventually to be taken forward as PPPs, needs to begin with the question: what investments are needed to deliver the right combination of services (such as those covered in the State Guaranteed Benefit Package, or equivalent) in the right kind of facilities (primary, secondary or tertiary facilities)? Only once this critical question is conclusively addressed can decisions be taken about the specific procurement method to be deployed and what capacity is needed to be in place to deliver the method effectively. While building capacity for the effective deployment of PPPs is likely to be important in many countries, it is even more important that ministries of health and other health authorities build strong capacities to undertake needs-based assessment of service needs, plan a strategic reconfiguration of the health estate that is aligned with this, and select and take forward the investments needed to deliver that strategy.

Yet in cases where PPPs will be used, strong capacities will be needed. Across the three models, PPPs incorporate a range of complex services,

all of which need to be specified in contract documents and payment mechanisms. Because of the multifaceted and conditional nature of health care, these services also tend to be challenging (and expensive) to monitor. Achieving successful outcomes from PPPs requires investment in the specialist human resources (either in-house or external to the organization) required to do this well. Currently, such capacities are limited in most countries in the Region. While specialist PPP agencies may exist in some limited form, ministries of health and other relevant subnational authorities need to be capable of implementing PPPs sensibly. The costs of achieving this, which include training of the required professionals and sufficiently attractive salaries to preclude corruption or poaching by the private sector, need to be considered as part of the overall economic appraisal of PPP programmes.

In general, it is sensible to start small when using PPPs, piloting the model on smaller projects in areas that are relatively measurable and monitorable (such as specialist clinical/diagnostic services, as discussed under Model 1 above) and building up the capacities of government and the market over time before moving to contracting in more complex and capital-intensive service areas, such as multi-profile hospitals. Indeed, there is evidence that the deployment of Model 1 contracts can stimulate state and market capacity for the wider adoption of contracts with the private sector. In Romania, for example, a programme of eight dialysis PPPs in the early 2000s helped to stimulate development of an efficient market in dialysis provision that now operates on the basis of short-term performance-based contracts let by the National Health Insurance House (Box 4).

Box 4. Dialysis Model 1 PPPs in Romania

In 2004, four private operators were selected to run eight separate contracts – each running for up to seven years – to refurbish, operate and manage dialysis centres at eight hospitals in Romania. The projects had a combined capital cost of €28.6 million. Payments to operators were based on a defined fee per haemodialysis treatment and a defined annual fee per peritoneal dialysis patient. Contracts were awarded to operators on the basis of investment levels rather than prices. The IFC, which worked as transaction adviser on the programme, estimates that between 2005 and 2008, the Government of Romania saved €2.9 million on the cost of dialysis services. Introduction of contracts based on fixed fees has resulted in a more transparent pricing system for dialysis services and enabled the adoption of stricter national quality standards that are applicable to privately and publicly managed clinics. There is now an efficient market in dialysis provision in the country (unlike in the initial wave of PPPs, now mostly conducted outside of hospital facilities) underpinned by financing from the National Health Insurance House on the basis of simple, output-based short-term contracts with international dialysis providers, in which fixed fees for treatment have been falling in real terms for a number of years.

5. Conclusion and recommended actions

This report has provided: a review of three PPP models currently being used or considered in the Region; an analysis of the costs, risks and benefits of these models; and an assessment of the specific actions that governments can take to strengthen their capacity for effective policy-making and implementation. Although PPPs have often led to relatively good outcomes in terms of post-contractual cost–certainty, they lead to high transaction and financing costs that need to be recognized, planned for and where possible mitigated by policy-makers. Securing value for money means selecting the right projects, reflecting their degree of priority for the health system as a whole, taking into account the need for rationalization/reconfiguration of physical and human resources (from hospitals to other care settings) and the potential impact of new purchasing arrangements and payment mechanisms. Securing value for money also means implementing PPPs only when they represent the most cost–effective solution compared to other procurement modalities, and where the robust capacities needed to plan, design, negotiate and monitor long-term complex transactions are available in the public sector to implement them effectively. Such capacities often are not available; where this is the case, they need to be built up over time.

In the real world, PPPs are often seen as a means of mobilizing additional capital. In utilizing private finance, they enable the budgetary recognition of capital expenditures to be deferred (in comparison with conventional public financing of capital investment, for which up-front capital expenditures are recognized as they are incurred). In the long-term, however, PPPs create debt-like obligations for the public sector (and, in the case of some models, also for patients). These need to be carefully and objectively considered through value-for-money analysis (which examines the opportunity costs of the PPP route compared to alternative models) and financial analysis (which examines the impact of future fiscal obligations on the financial sustainability of the relevant health system setting).

To minimize fiscal risks and ensure the integrity of procurement processes, institutional checks and balances need to be robust. Securing allocative and productive efficiency and safeguarding the public interest requires sources of independent scrutiny and challenge, including the activation of supreme audit institutions for larger schemes that have the potential to impact on the financial sustainability of health systems. Their findings should be disseminated as widely as possible, including in parliament and through the media, and the data, evidence and recommendations they provide utilized to inform policy adaptation and learning.

While each of the three models presents a different combination of costs, risks and benefits, certain principles of good practice apply equally to all. Specific recommended actions for Member States include the following.

1. Ensure that the investment decision is separated from the procurement route decision and that these decisions are made in the right order. The investment decision comes first. It is concerned with questions such as what is needed to deliver the right combination of services (those covered in a State Guaranteed Benefit Package or similar, for instance) in the right kind of facilities (primary, secondary, or tertiary facilities)? Only once such questions are addressed can a decision be taken about the relative value for money of alternative procurement routes. The

latter decision is concerned with the question: what procurement route will deliver the intended outputs with the most advantageous combination of costs, risks and benefits?

2. Incorporate in the procurement route decision an objective recognition of long-term financial costs and risks to the public sector, health systems and (where user fees are to be introduced/expanded in the post-contract arrangements) household budgets. Financial risks relate to uncertainties around what the future costs will be in real terms and the ability of the ultimate payers to afford them without detriment to their own financial position. Experience to date has demonstrated a willingness to use PPPs even in cases where the model is unlikely to deliver best value for money, and a propensity to overcommit future revenues by, for example, entering into contracts that are too costly for the public authorities and/or service users that ultimately will pay the bill. Given the tendency of public authorities to engage in forms of strategic behaviour, it is crucial that regulations governing the conduct of financial appraisals are robust and subject to independent scrutiny. For larger schemes, scrutiny should be undertaken by well resourced independent agencies, such as the supreme audit institution of the country.
3. Invest in the capacity required to define a strategic plan for the health estate in which all investment decisions are embedded. In view of the importance of recommendations 1 and 2, achieving success in capital investment programmes – including those in which PPP is implicated – requires strong capacity within government to undertake rigorous needs-based capital planning to define a strategic plan for the health estate in which all investment decisions should be embedded. These functions should not be outsourced to external agencies – they are core functions of government and are essential to the long-term technical efficiency of the health system. Nor are they well suited to so-called PPP units, which require more specialist skills, as outlined below.
4. Invest in the capacity required to deliver the strategic plan. Finally, there needs to be strong contracting capacity in government, ideally in the form of a specialist procurement unit, to support local health authorities in running competitive procurements, designing effective contracts and establishing structures to ensure assiduous monitoring of performance. Without such capacities in place, PPPs will not deliver benefits in respect of risk transfer that are sufficient to offset this procurement model's higher transaction costs and financial costs. Such capacities should be complemented by robust institutional checks and balances to ensure transparency in decision-making, minimize fiscal risks and maintain the competitive integrity of procurement processes.

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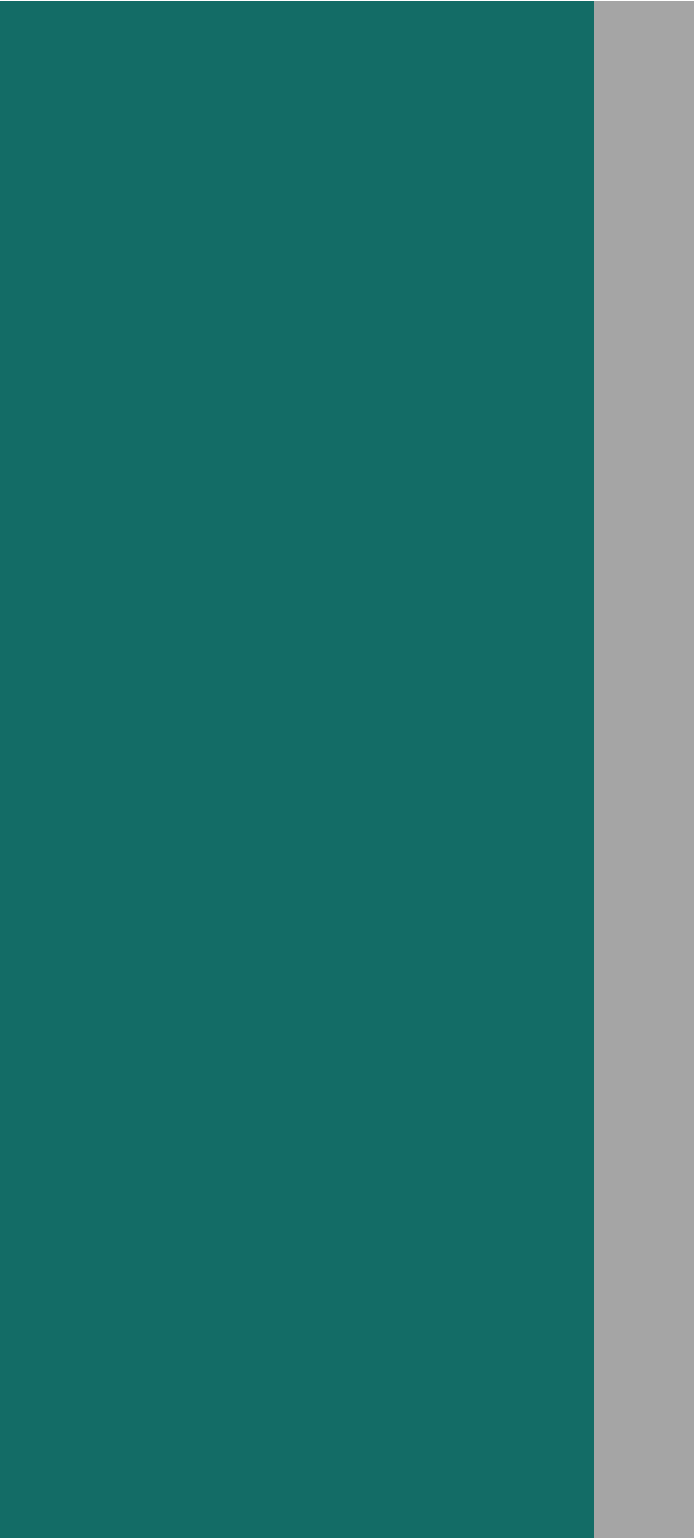
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Department of Economic Affairs

Green Book for Healthcare Sector

Guide for Practitioner's for PPPs in Primary Healthcare



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GUIDE FOR PRACTITIONERS FOR PRIMARY HEALTH CLINIC

1. INTRODUCTION

Both Central and State governments have identified several important needs and taken initiatives to strengthen the health and medical care services for greater benefit of the people. In this context primary healthcare is the cornerstone of health services- a first port of call to a qualified doctor for the sick. Amongst various needs, greater access to primary health care round the clock for the patients at affordable cost is one of the critical aspects of modern healthcare services.

The primary healthcare in India suffers from issues such as the inability to perform up to the expectation due to (i) non-availability of doctors; (ii) inadequate physical infrastructure and facilities; (iii) insufficient quantities of drugs; (iv) lack of accountability to the public and lack of community participation; (v) lack of set standards for monitoring quality care etc. Thus to improve the health and well-being of the people there is need to leverage resources from private sector to improve the primary healthcare services and increase the coverage of population for primary healthcare services. Already, several states have started implementing projects under Public Private Partnership (“PPP”), for provision of primary healthcare services to its inhabitants, particularly in rural areas.

The key objective of implementing primary healthcare projects on PPP basis would be to provide access to primary healthcare services to vulnerable and targeted sections of society such as economically weaker section patients/below poverty line patients (“**BPL Patients**”). In order to achieve the objectives set out hereinabove, the government (“**Implementing Agency**”) proposes to develop/implement greenfield Primary Healthcare Clinic (“**PHC**”) which may include development of building and support infrastructure; installation of equipment’s; and may provide clinical services, support clinical services and facility management services (such as housekeeping and maintenance, etc.) to inpatients and outpatients of the concerned PHC.

With the intent to provide access to primary healthcare services to BPL Patients, the Implementing Agency proposes to implement PHC in different regions of the state where there are no PHC or the existing PHC is insufficient to serve the entire population of such BPL Patients within the specified area.

- **Capacity of PHC:** PHC is to serve a defined area and population thus the minimum capacity of the PHC will be dependent on feasibility study which would take into account the population density, technical and commercial aspects of a project facility, covering the required services, usage requirements and the type of healthcare to be provided in the PHC. Indian Public Health Standards (IPHS) Guidelines for Primary Healthcare Clinics 2012 may be referred to for basic requirements of primary health care establishment.

- **Services to be provided in Primary Healthcare Clinic:**
 - Clinical Services: The clinical services would cover the following:
 - **Medical Care:** Under medical care, PHC has to provide OPD services, 24 hours emergency services, referral services and in-patient services for four- six beds.
 - **Maternal and child health care including family planning:** This may include ante natal care; inter natal care, referral, post natal care and new born care. Also to provide child care and family welfare services, medical termination of pregnancies, management of reproductive tract infection and sexually transferred infections, and adolescent healthcare services etc.
 - **Selected surgical procedures:** PHC may provide selected surgical facilities the vasectomy, tubectomy (including laparoscopic tubectomy), MTP, hydrocelectomy etc.
 - Support clinical services: The support clinical services would include basic laboratory and diagnostic service, referral services, patient data and report capturing and integration with the existing referral hospital network, etc.
 - Facility management services: The facility management services would include help desk services, housekeeping services, material services (management of goods and supplies), plant services including facility maintenance, repair, and replacement, patient portering, utilities management, etc.

A Primary healthcare clinic under PPP may provide some of the abovementioned services or all, depending upon the project objective, authority requirements, epidemiological assessment and budgetary outlay. Thus it is imperative that a detailed study is done before deciding upon the services scope of the project.

- **Alternative models for development:**
 - Alternative 1: Development in clusters: Under Alternative 1, the state government may appoint concessionaire for development of multiple PHC's in a region. The PPP projects in primary healthcare clinic can involve the bundling of various projects by state government under one common umbrella and offering the collective package for private sector participation. Firstly at a district level regions where primary healthcare clinic is required are identified (say 20 PHC's). Thereafter,

these are packaged into clusters which typically constitute 3-6 PHC's. Each package is treated as an individual project. The bidders can bid for any or all the packages. The bidders would need to submit single technical proposals for all the packages and separate financial proposals for each package.

- Alternative 2: Development of individual PHC: This alternative involves authority appointing concessionaire for development of single primary healthcare clinic.
- Recommended Approach: The key advantages of alternative 1 over alternative 2 are:
 - **Uniformity and Standardization:** The clustering of projects under alternative 1 will enable uniformity and standardization of service level across PHC in terms of services. On the other hand under alternative 2 separate services could be provided as per the specific local requirement.
 - **Scale of investment and return:** As investment and return levels for a single PHC can be low, alternative 1 may provide an optimal scale of investment and return to attract private sector investment from established players. Under Alternative 2, the scale of investment and return may remain low to attract established players.
 - **Combined Bidding Processes:** Alternative 1 would involve a combined bidding process which would be cost efficient, less time consuming and cumbersome while alternative 2 would involve separate bidding process for development of respective primary healthcare clinic.
 - **Increasing Affordability:** Due to clustering of several projects better economies of scale may be achievable by the private player, under Alternative 1. Thus service prices may be more competitive than under Alternative 2.
 - **Better Monitoring:** By packaging and adopting a cluster approach the scale would enable appointment of independent monitors to monitor the project in effective manner.

In view of the inherent advantages available under alternative 1 over alternative 2 in respect of uniformity and standardization of service levels, scale of investment and return, combined bidding process, affordability and better monitoring, alternative 1 can be the preferred mode for development of

primary healthcare clinic on PPP mode.

2. SCOPE OF THE PROJECT

- **Components of PHC:** The project scope will vary according to the objectives of the Implementing Agency, however the key components of scope of PHC project can be categorized into following:
 - **Design:** This includes all designs, drawings, calculations and documents pertaining to the project facilities. The concessionaire would need to prepare the designs for the project facilities in accordance with the standards and specifications prescribed by the Implementing Agency (please refer to para 8.1) and submit the same with the Implementing Agency. The Implementing Agency will review the same and provide comments to the Concessionaire. If the designs are not in conformity, then the concessionaire would need to revise and resubmit the same with the Implementing Agency. Notwithstanding the review and comments of the Implementing Agency, complete responsibility for designs would vest with the concessionaire.
 - **Infrastructure:** This includes construction of the building and related assets to provide the health care services and allied services. The Implementing Agency should provide a detailed explanation of the infrastructure scope and standards & specifications in the schedule to the concession agreement in terms of the off-site, on-site development, building components, construction responsibilities, testing and commissioning of the structure (please refer to para 8.1). Any sub-contract by the Concessionaire should be granted through open tender process.
 - **Equipment's:** This includes procurement, installation and testing of the equipment and standards & specifications for the same (please refer to para. 8.2). Any sub-contract by the Concessionaire should be granted through open tender process.
 - **Clinical Services:** The clinical services to be provided at the PHC would cover outpatient and inpatient medical care; maternal and child health care including family planning; and selected simple surgical procedures etc.
 - **Support clinical services:** The support clinical services would include basic laboratory and diagnostic service, referral services, patient data and report capturing and integration with the existing referral hospital network. etc.

- Facility management services: The facility management services would include help desk services, housekeeping services, material services (management of goods and supplies), plant services including facility maintenance, repair, and replacement, patient portering, utilities management, etc.
- Other commercial services: The scope should also define if any other commercial services such as cafeteria, restaurant, book shop, florist shop, ATM facility etc. are to be provided by the Concessionaire. The commercial services may be provided at market price and the entire revenue generated from such commercial services may (i) accrue to the concessionaire (i.e. may not be shared with the Implementing Agency) or (ii) may be shared between the concessionaire and the Implementing Agency. In the event such revenues accrue to the concessionaire (i.e. not be shared with the Implementing Agency), the same should be factored in by the bidders while submitting their financial bids.
- **Key issues to be address while defining project scope:** In defining the scope of the project, the concession agreement should clearly bring out the following:
 - Capacity of Primary Healthcare Clinic: The infrastructure requirements of PHC to be as required based on usage requirements for various services envisaged.
 - Segmentation of the capacity: Different categories of patients or distinction between the BPL Patients and any other patients, and reserving the capacity for BPL Patients. Such segmentation should be arrived at by factoring in the feasibility study, annual budget outlay of the Implementing Agency, regional demographics, socio-economic composition and such other relevant factors as may be considered.
 - Sub-contracting: Any sub-contract by the Concessionaire should be granted through open tender process in order to maximize competitiveness, to ensure greater transparency and maximizing financial efficiency.

3. TERM OF THE AGREEMENT

- **Factors to be considered while deciding duration:** The concession agreement should specify the duration of the project. The factors to be taken into account while deciding upon the duration of the contract shall include:
 - Based on the scope of the project and services, cost and revenues from

- the project, the implementing agency will be required determine the optimal duration for the financial viability of the project.
- The service requirements of the Implementing Agency and the required quality and quantity outputs in the longer term; the expected life of the assets underpinning the service; any possible residual value; and the need for and timing of major refurbishment or asset refreshment programme during the concession agreement.
 - The factors such as service requirements, forecast quality and quantity, expected life of assets, construction and maintenance requirements, forecast of the base cost, option to extend the term of the concession.
 - The importance of continuity in the delivery of the service, including the degree of transition difficulties and inefficiencies that might be caused by changing/substituting the concessionaire. The affordability of the payments to be made by the Implementing Agency for the project.
- **Recommended Approach:** Given these factors the option for duration of agreement has to be arrived at by the authority which provides best value for money the project. The concession period in general for PHC may range from 7-15 years. Given that the PHC will require comparatively smaller built up area the construction period may be of the order of 0.5years, the rest being the operation period. The entire project assets should transfer to the Implementing Agency at the end of the concession period.

4. PATIENT MIX

- **Options for Patient Mix:** In order to achieve to the key objective set out hereinabove, the Implementing Agency may provide differential benefits to BPL Patients and other patients. Based on the aforesaid, the term ‘patient’ may be divided into two categories under the concession agreement:
 - BPL Patients: This would include the vulnerable and targeted sections of society who falls under the definition of BPL Patient (as may be defined by the Implementing Agency).
 - Non BPL patients: This would include the patients who do not fall under the definition of BPL Patient (“**Private Patients**”).
- **Recommended option for Patient Mix:** The concession agreement may provide for such segmentation/ categorisation of patients based on feasibility study, annual budget outlay of the implementing agency, regional demographics, socio-economic composition and such other relevant factors as

may be considered.

- **Key issues to address:** The categorisation of patients requires concession agreement to address following issues:
 - Mechanism for identification of BPL patients: Where there is a segmentation of different classes of patients, the concession agreement should clearly specify the institutional mechanism for identification of BPL Patients.
 - Specifying proportion of healthcare infrastructure for different category of patients: Where there is a segmentation of different classes of patients, the concession agreement should clearly specify a percentage of capacity or usage level which is to be achieved for BPL Patients for primary healthcare services.

5. PRICING MECHANISM¹

- **Options for pricing:** The pricing of the services is one of the critical aspects in a PHCPPP as it impacts both the affordability and accessibility of healthcare services. In this context, various options to determine pricing have been outlined below:
 - For BPL Patients: The following options may be followed for pricing of services to BPL Patients:
 - Option 1 - Benchmarked to CGHS prices: The concession agreement can specify that the pricing applicable under Central Government Health Scheme (“CGHS”) to be followed by the concessionaire in pricing the healthcare services. CGHS provides comprehensive health care facilities for Central Government employees, pensioners and their dependents residing in CGHS-covered cities. Generally, two models are adopted for application of CGHS pricing: (a) city pricing at applicable rates, and (b) city pricing at a discounted rate, or where city pricing is not available, CGHS rates applicable for a nearby city are discounted and used.
 - Option 2 - Benchmarked to SGHS prices: The concession

¹**Note:** The pricing model adopted should be sensitive to Section 9(ii) of the Clinical Establishment (registration and regulation) Act, 2010 which provides that the clinical establishment shall charge the rates for each type of procedure and services within the range of rates determined and issued by the Central Government from time to time, in consultation with the State Governments.

agreement can specify that the pricing applicable under the State Government Health Scheme (“SGHS”) to be followed by the concessionaire in pricing the healthcare services.

- Option 3 – Agreement specified pricing: A detailed pricing structure can be included in the concession agreement, wherein the prices for all services which are to be delivered under the project can be specified in the concession agreement. This approach requires a thorough working out of the services to be delivered and the prices for each of the service. Alternatively, the prices can be benchmarked to a state hospital whereby the healthcare services to users can be provided as per the prevailing prices for such services in a benchmark state hospital.
- For Private Patients (Non - BPL Patients):The following options can be followed for pricing of services to Private Patients:
 - Option 1 - Benchmarked to CGHS prices: The concession agreement can specify that the pricing applicable under CGHS to be followed by the concessionaire in pricing the healthcare services. CGHS provides comprehensive health care facilities for Central Government employees and pensioners and their dependents residing in CGHS-covered cities. Generally, two models are adopted for application of CGHS pricing: (a) city pricing at applicable rates, and (b) city pricing at a discounted rate, or where such city pricing is not available, CGHS rates applicable for a nearby city are discounted and used.
 - Option 2 - Benchmarked to SGHS prices: The concession agreement can specify that the pricing applicable under the SGHS to be followed by the concessionaire in pricing the services.
 - Option 3 – Agreement specified pricing: A detailed pricing structure included in the concession agreement, wherein the prices for all services which are to be delivered under the project can be specified in the concession agreement. This approach requires a thorough working out of the services to be delivered and the prices for each of the service. Alternatively, the prices can be benchmarked to a state hospital whereby the healthcare services to users can be provided as per the prevailing prices for such services in a benchmark state hospital.

- Option 4- Market pricing: The concession agreement may provide freedom to concessionaire to determine and charge the patients market determined prices for services. This approach is suitable where there is adequate competition for healthcare service delivery; else it would lead to a monopoly pricing.
- **Recommendation for pricing standards:** In order to implement the options set out hereinabove, there are two approaches for pricing the services:
 - Option 1 - Uniform pricing: Under this approach, there is no differentiation in pricing among different categories of patients (such as BPL Patients and Private Patients), and single price regime should be followed for primary health services provided to BPL Patients and Private Patients.
 - Option 2 - Mixed Approach: Under this approach, there is differentiation in pricing among different categories of patients (such as BPL Patients and Private Patients), and different price regime should be followed for health services provided to BPL Patients and Private Patients.

Thus, there can be two kinds of approach for pricing within which there can be two different options specified above (such as specified CGHS pricing for BPL Patients coupled with market pricing for Private Patients or uniform pricing for both). The primary issue associated with mixed pricing approach is that it may lead to discriminatory treatment towards BPL Patients, as the pricing fixed for these patients is typically lower than the pricing fixed for Private Patients. Hence, it is recommended that the uniform pricing approach should be adopted.

- **Key issues to address:** In defining price regime, following issue need to be addressed;
 - Revision of Prices: The PPP agreements usually have a long tenure in such cases, so the cost of the service delivery is likely to go up during the concession period. To provide for such eventuality, the concession agreement needs to provide for a mechanism for revision of prices, which can be done in following ways:
 - **Market Pricing Regime:** Under market pricing regime, there is no need to incorporate price revision or indexation provisions. However, in such cases it is prudent to have an Implementing Agency check point to ensure that the health care services prices do not become arbitrarily high.
 - **Specified Pricing Regime:** In cases where prices for services

are specified in the concession agreement, the concession agreement should also provide for the revision procedure for such prices. The revision procedure should incorporate the principles for inflation indexation.

- *Non-Inclusion of free services:* In setting up a pricing regime, the Implementing Agency should refrain from obliging the concessionaire from providing free services (no reimbursement to concessionaire for such delivery of services) to BPL Patients, as it may create potential for discrimination by the concessionaire against BPL Patients. A better approach is to price the services for all and develop a payment mechanism for such services which benefits the BPL Patients.

6. USER FEE/PAYMENT FOR THE SERVICES

- **Introduction:** Collection of User Fee and the payment mechanism lies at the heart of the concession agreement and forms the consideration for which parties have entered into the concession agreement.
- **Options for Payment for primary healthcare services:** For payment of healthcare services provided to BPL Patients, the following options can be adopted in the concession agreement:
 - *Option 1 - Reimbursement by the Implementing Agency for Primary Healthcare services to BPL Patients:* Under this approach, the Implementing Agency would reimburse the concessionaire for the treatment and services provided to the BPL Patients.

Cap on Reimbursement: The objective of the Implementing Agency is to extend affordable primary healthcare benefits to BPL Patients. While pursuing such objective, it is equally important that the total consideration to be paid/ reimbursed by the Implementing Agency for the services given to BPL Patients should be within the budget of such agency. Accordingly, concession agreement may provide for caps on such reimbursement. Typically, there are two approaches within the healthcare sector to sustain the affordability:

- *Budgetary cap on reimbursements:* In this approach, a budgetary cap is fixed by the Implementing Agency in respect of the maximum reimbursements to be made to the concessionaire for services to BPL Patients.
- *Cap on number of BPL patients:* In this approach, a maximum limit is fixed on the total number of patients for whom the Implementing Agency will reimburse the charges. Here the registration based approach can be adopted wherein the BPL

patients within the specified region may be registered with the primary health clinic for availing the services, except for emergency services which may remain available to all and any BPL patients.

The above stated models should be based on a thorough analysis of the Implementing Agency's budget outlay, projected demand for primary health care services, regional demographics and socio-economic assessment. Such budgetary cap should have adequate built in margins, to factor the increase in population. Further, the concession agreement should provide suitable safeguards to go above and beyond the reimbursement caps in case of emergency, natural calamities, epidemics etc.

- Option 2 - Reimbursement through central/state insurance schemes for treatment of BPL Patients: Under this approach, central/state insurance provider would reimburse the concessionaire for the treatment provided to the BPL Patients. For e.g. an insurance scheme may specify surgical/non-surgical services in respect of which the entire sum (as set out under such insurance cover) would be paid by the central/state insurance provider. Such payment will cover the payments for the healthcare services. In this case, there would not be any reimbursement from Implementing Agency.
- Option 3 – Partial reimbursement through Central/State Insurance Scheme and the balance Implementing Agency: This approach can be used in conjunction with the reimbursement by Implementing Agency i.e. central/state insurance provider, through the government insurance scheme, would reimburse the concessionaire for the treatment provided to the BPL Patients to the extent of insurance cover and shortfall, if any from applicable tariff structure would be reimbursed by the Implementing Agency. For example, an insurance scheme could involve a fixed cover of say Rs. 150,000 (Rupees One Lakh Fifty Thousand only) per family per annum and in case the medical expenditure exceeds the specified limit, such excess shall be reimbursed by the Implementing Agency to the primary health clinic.

For payment of primary healthcare services provided to Private Patients, the concessionaire should directly collect charges from Private Patients for services provided to them.

- **Recommended Option:** Among the above models of reimbursement, reimbursement via government health insurance schemes could work out as the most effective tool for ensuring payment for the health care services. However, this model has limitations as many states do not have state insurance policies. Thus, the optimal option is to provide for reimbursement by the Implementing Agency for the primary health care services in states, where the

state insurance policies are non-existing. This option fulfills the objective of providing accessible and affordable health care to BPL Patients.

7. PAYMENT SAFEGUARDS

- **Options for payment safeguard:** A critical area of concern is that concession agreement defined timelines for payments of service fees may not be adhered to by the authorities. This can lead to the problem of liquidity and reduce the project viability. To resolve this issue, the concession agreement can follow two options:
 - Option 1 No payment safeguard: No safeguards are provided to the private partner. However, the concession agreements may provide for penal interest for delay in payment by the Implementing Agency, which is linked to SBI PLR + 2-4% per annum.
 - Option 2-Payment safeguards: Typically, two types of payment safeguards are available for protecting the interest of the concessionaire:
 - **Payment reserve account:** The concession agreement can provide for a payment reserve account (PRA), wherein the Implementing Agency has to deposit specified months revenue. In the event of any default or delay in payment by the Implementing Agency, the concessionaire can withdraw such amount from the PRA without notice. The Implementing Agency has to replenish the PRA within specified number of days.
 - **Letter of credit:** The concession agreement can provide that the Implementing Agency provides for an irrevocable and revolving letter of credit equivalent to specified months revenue to the concessionaire, as a security for payment of service fee. In the event of any default or delay in payment by the Implementing Agency, the concessionaire can invoke the letter of credit without notice. The Implementing Agency has to replenish the letter of credit within specified number of days.
- **Recommended option:** Though interest provisions intend to compensate the aggrieved party for the delay in payment, by far this has failed to prove as a standalone safeguard mechanism, and it can lead to dispute over payment of interest. On the other hand, option 2 of providing the payment safeguard such as a payment reserve account or a letter of credit can be an effective safeguard mechanism which can ensure payment discipline on the part of the Implementing Agency and protect the interest of the private player.

8. PERFORMANCE SPECIFICATION

To effectively manage performance and optimise risk transfer, the concession agreement should contain, at a minimum, the following elements:

- **Performance specifications:** Describing the requirement in terms of measurable outcomes rather than by prescriptive or input methods.
- **Measurable performance standards:** To determine whether performance outcomes have been met and define acceptable performance.
- **Performance assessment plan:** Describing how the concessionaire's performance will be measured and assessed against performance standards. (Quality Assurance Plan or Quality Assurance Surveillance Plan).
- **Remedies to poor performance:** Describe procedures that address how to manage performance that does not meet performance standards (please refer to para. 8.7). While not mandatory, incentives should be used, where appropriate, to encourage performance that will exceed performance standards. Remedies and incentives complement each other.

The project scope varies from project to project, based on the scope PPP arrangement in the healthcare sector, specifications would typically fall into the following categories:

8.1 Infrastructure specification

- **Design specification:** The concession agreement should provide the required design specifications. Specifications as far as possible should be in terms of the output required where in the following approach can be taken:
 - Design as per the applicable regulations/frameworks: Where applicable design of the Primary Health Clinic can be required to follow the applicable regulations. The Implementing Agency may take cognizance of the IPHS guidelines in deciding optimal design configuration for primary health clinic.
 - In addition, the concession agreement can provide for output based specifications for the design of the Primary Health Clinic. Where this approach is followed, the concession agreement shall provide for the following to ensure design quality:
 - Technical standards and requirements which are to be achieved, to ensure optimal functioning of the project facility. This

should be achieved not by specifying the design but by describing the output required from the structure and other structural elements as well as and functional integration, for the services to be delivered.

- Design quality plan, wherein the concessionaire should be required to submit its strategy along with timelines for formulation of design, including consultation with stakeholders, experts involved, internal review mechanism and submit the same to the independent monitor and Implementing Agency for review. The concessionaire should carry out revisions in the design quality plan based on the comments of the independent monitor and the Implementing Agency and also demonstrate achievement of the optimal functional integration for the services delivery.
- **Construction performance requirements:** The concessionaire is required to construct the facility on the site provided; the construction performance specifications are also to be provided in the concession agreement. The following framework can be utilized for specifying the performance requirement.
 - Defining the construction scope: The concession agreement should specify all the structural elements and components of the project facility which is to be constructed. This will have close correspondence with the design specifications. The construction scope should clearly bring out the work required to be carried out for different components of the project facility.
 - Construction Standards: In defining the scope of development, the second aspect is to define the standards which have to be adhered to, in creation of different components, including the regulated standards which have to be achieved.
 - Construction Timelines: The concession agreement should clearly specify the timelines for various stages of the construction. Delay in achievement of such timelines should be penalized.
 - Construction Quality Plan: The concessionaire should be required to submit a construction quality plan. Such a plan should be submitted prior to start of the construction and should be approved by the independent monitor. The plan should outline the approach to and adherence to the design, applicable quality standards, time lines and tests. Tests to be conducted at different stages of construction should be elaborated along with the rectification measures required in case of

failure of such test.

8.2 Equipment Specification

In outlining the equipment specification the following framework can be adopted, wherein there is an equipment list. The implementing agency may take cognizance of the IPHS guidelines in arriving at the minimum equipment requirement for the optimal functioning of the clinical and clinical support services at the primary health clinic. This has to be supplemented by the equipment performance monitoring and maintenance plan to be submitted by the concessionaire.

- **Equipment List:** A list may be provided enumerating the equipment's in following format:

| Equipment | Reference | Item Description | Further Description | Quantity | Procurement Category |
|-------------------|---|------------------------------------|---|----------|--|
| Name of equipment | To Clinical/ Clinical Support/ Facility management service for which equipment would be utilized. | The specification of the equipment | The description of attachment and ancillaries | Number | By the Concessionaire/ Implementing Agency |

- **Equipment Performance Monitoring:** These would need to be developed by the Implementing Agency for all equipment's, as described in the equipment list. It would require monitoring the availability and functional status of the equipment as per the following framework.

| Equipment | Availability | Functional | Remarks/Suggestions/ Identified Gaps |
|-----------|--------------|------------|--------------------------------------|
| A | Yes/No | Yes/No | |
| B | Yes/No | Yes/No | |
| C | Yes/No | Yes/No | |

- **Equipment Maintenance Plan:** As the third aspect of the performance requirement the Concessionaire should be required to submit equipment maintenance plan, where in the concessionaire should list out:
 - The schedule for routine or planned maintenance for each of the equipment.
 - The planned replacement of the equipment depending upon the equipment life
 - Reactive maintenance plan, where in the equipment should be categorised into rank order of importance/criticality for delivery of different health services. Based on this categorisation adequate

timelines for rectification of problems should be mandated in the concession agreement. Non-rectification within the timeline should be regarded as quality failure.

- Where service failure is being monitored and service standards are in place, separate penalty for equipment failure should not be warranted. However, adequate protection should be there for continued non-availability of the mandated number of equipment's. This will constitute a quality failure.

8.3 Performance specification of clinical and clinical support services:

- **Introduction:** The key objective of the Primary Healthcare Clinic project is to provide primary healthcare services to different types of patients. Depending on the project scope, the Primary Healthcare Clinic may have to provide wide range of services to inpatients and outpatients.
 - Clinical Services: The clinical services would cover the following.
 - **Medical Care:** Under medical care PHC has to provide OPD services, 24 hours emergency services, referral services and in-patient services for four- six beds.
 - **Maternal and child health care including family planning:** This may include ante natal care; inter natal care, referral, post natal care and new born care. Also to provide child care and family welfare services, medical termination of pregnancies, management of reproductive tract infection and sexually transferred infections, and adolescent healthcare services etc.
 - **Selected surgical procedures:** PHC may provide selected surgical facilities the vasectomy, tubectomy (including laparoscopic tubectomy), MTP, hydrocelectomy etc.
 - Support clinical services: The support clinical services would include basic laboratory and diagnostic service, referral services, patient data and report capturing and integration with the existing referral hospital network. etc.
- **Service Specification:** It is important that a detailing of the services to be delivered in the project facility is carried out. The concession agreement should bring out the output specification for delivery of the clinical and support clinical services. The framework for performance specification of clinical and clinical support services is provided below:

| S.N | Parameter | Detail |
|-----|--|--|
| 1. | Essential Service | Availability of OPD services and its components Availability of IPD services and its components Availability of Emergency Service and its components Availability of Surgical Services and its components Availability Referral services and its components Availability of Laboratory Services and its components Patient Data Management |
| 2. | Minimum hours of operation | The availability of each service in terms of hours and days. Unavailability of any of the essential service and any of its components during mandated hours will constitute service failure. |
| 3. | Patient Management Process | The patient flow process can be worked out from entry into the primary health clinic to exit. Based on this patient flow process service standards can be established for PHC. |
| 4. | Patient Information Management | This section will describe the information and record management for the patient. Ready availability and processing of the patient information will constitute service performance standard. |
| 5. | Information Dissemination | Display of mandated services rates and timings |
| 6. | Staff Requirements | Here the minimum staff required for the optimal performance of PHC may be stated. Inadequate availability of staff would constitute service failure. |
| 7. | Service Standards | For each element of the PHC as discussed above the service standards should be specified along with monitoring frequency. Non-achievement of service standards should comprise a service failure event. |
| 8. | Availability of Standard Operating Procedures (SOP)/Standard Treatment Protocols (STP)/Guidelines etc. | Adherence to standard Operating Procedures (SOP)/Standard Treatment Protocols (STP)/Guidelines etc. |
| 9. | User satisfaction Survey | Provision can be made for quarterly survey of the user satisfaction survey for the services delivered. |

8.4 Outcome Indicators for Clinical Performance

- Introduction:** In addition to the service performance indicators, above the concession agreement may also include outcome based indicators to monitor the outcome of the primary healthcare services.
- Indicative Framework for Specifying Outcome Indicator:** An ideal outcome indicator would capture the effect of processes on the delivery of relevant and accurate treatment. An example of framework for specifying outcome indicators is shown in table below.

| Category | S. No | Indicators |
|------------------------|-------|---|
| PHC Outcome Indicators | GO1 | Number of patients treated |
| | GO2 | In-patient mortality |
| | GO3 | % of patient serviced within service standards |
| | GO4 | % emergency request responded within service standard |
| | GO5 | Number of patients referred to hospitals |
| | GO6 | Patient satisfaction |

- The implementing agency may take cognizance of the outcome indicators

specified under the IPHS guidelines to arrive at project specific outcome indicators.

- Outcome of care is determined by several factors related to the demography, patient, the illness, and health care. Differences in outcome may be due to case mix and other confounding factors. Standardized data collection and risk adjustment are therefore important for interpreting outcomes data.
- The Concessionaire should be obliged to provide data and reports on the specified outcome indicators on regular basis to the authority. Authority upon any deterioration overtime in any of the indicators may be empowered to take suitable remedial action.

8.5 Performance Indicators with respect to the BPL patients

- The authority may define a composite set of performance indicators to monitor the service delivery to the target vulnerable segment including the BPL patients. Here a twofold approach can be adopted;
 - Separate indices for the specified standards: Under this approach the service performance for the BPL patient can be separately tracked and maintained for the specified service standards, as developed based on the methodology outlined in the section 8.3. Similarly, performance pertaining to BPL patients can be tracked for the outcome indicators as developed based on the methodology indicated in the section 8.4. Such performance monitoring will allow a comparison on the performance standards achieved for the BPL patients with the overall performance on service delivery to patients.
 - BPL patient specific Indicators: The concession agreement may supplement above or as standalone define BPL patient specific indicators for monitoring service delivery to such patients. Such Indicators may include as below;

| Category | | Indicators |
|---------------------------------------|-------|---|
| Service Access and Quality Indicators | BAQO1 | % of BPL inpatient to total inpatient |
| | BAQO2 | % of BPL outpatient to total outpatient |
| | BAQO3 | % of BPL inpatient to % of BPL outpatient |
| | BAQO4 | Average waiting time for BPL patients at the time of random check |
| | BAQO5 | % Adherence to defined treatment protocol for BPL patients |
| | BAQO6 | BPL complaints rectification rate |

8.6 Performance Specification of facility management services

The concession agreement schedule should bring out in detail all the facility management services which are to be performed by the Concessionaire. The facility

management services in a primary healthcare clinic project will comprise of general management services, help desk services, food services, patient, housekeeping services, waste management, pest management, laundry and linen services, material services, plant service, protection services, utilities management, parking services, etc. each service should be specified and monitored based on availability and functional status.

| Facility Management Service | Availability | Functional Quality | Remarks/Suggestions/ Identified Gaps |
|-----------------------------|--------------|--------------------|--------------------------------------|
| Waste Management | Yes/No | High/Medium/Low | Service Failure/Quality Failure |
| Pest Management | Yes/No | High/Medium/Low | Service Failure/Quality Failure |
| Material services | Yes/No | High/Medium/Low | Service Failure/Quality Failure |

8.7 Options for Remedies of Poor Performance

The poor performance of the concessionaire has to be disincentivized through concession agreement provisions. The concession agreement should set up a defined performance regime in respect of the service delivery and based on such performance standards service failure event should be defined. The implementation of the remedies for poor performance in monetary terms is as follows:

- **Service failure event deductions:** Service Failure events are service performance failures related to services to be delivered by concessionaire within the facility including clinical, clinical support and facility management services, for example non-availability of services during mandated hour constitutes service failure. Service Failure events can be recorded through random checks by the monitoring agencies and deductions calculated on a monthly basis. Service Failure event deduction can be based on:
 - **Criticality factor:** The relative importance of the service affected by the failure event. The criticality factor can be the Rupees amount per service, detailed in the schedule and is based on significance weighting of zero to five of the service.
 - The severity of the failure event, i.e., the failure event category. The failure event category can be assessed based on the inconvenience, remaining functionality and incapacity of the service delivery resulting from the failure event and in accordance with the output specifications. Percentage deductions range from 10% for category "A" failure event or routine failures to 100% for a category "E" failure event or “unavailable or unused.”
- **Quality failures deductions:** Service performance failures are not related to delivery of services but the quality of such services, where in the services fail

to meet the quality standards outlined in the service specifications; for example the IPD service is available but the cleanliness and sterile environment is not up to specified standards. Herein a service quality failure has occurred which can be recorded and deductions can be calculated as per the specified formula. Such performance failures can be monitored monthly basis through a system of random checks or as in the case of quality satisfaction failures, on periodic basis. A quality failure deduction is based on three factors:

- Relative importance of the service in delivery of which the quality failure occurs. Each service can be given a weighting in proportion to the criticality factor.
 - Severity of the quality failure, and the quality failure category, ranging from 1% for a low priority failure to 2% for a high priority failure
 - Quality satisfaction failures can be assessed based on a survey of services' users; failure deduction percentage ranges from 0.5% for a minor failure to 2% for a significant failure.
- **Incorporation in payment mechanism:** Both the deductions have to be incorporated in the calculation for payment due for the period in which the failure event occurs. In cases where the concessionaire is not being paid by the Implementing Agency in any form, the penalty will be recovered by the Implementing Agency on a monthly basis.

9. PERFORMANCE MONITORING

- **Introduction:** There must be a mechanism under the concession agreement which enables the Implementing Agency to monitor the concessionaire performance against the performance requirements so that the project can operate effectively. The Implementing Agency should also be able to identify performance problems so that remedies for poor performance can be pursued if necessary. This entails a need for mechanism to ensure monitoring of the project.
- **Levels of Performance Monitoring:** Depending on the project magnitude, the monitoring should occur at five levels:
 - a. *Independent Monitor:* The concession agreement must provide for an independent monitor to review the performance against the performance indicators. There may be a need to appoint following independent monitors during the construction phase and the operations phase of the project.

- **Independent Engineer:** An independent engineer can be appointed for monitoring during the construction phase to inspect, test and monitor the construction works. In the operations phase the independent engineer would be responsible for inspection, verification and testing for building and equipment maintenance requirements.
 - **Independent Health Consultant:** In the operations phase, the independent health consultant will be required to monitor clinical, support clinical services and facility management services as per the required performance standards. Such Consultant should be appointed prior to operations date so that they can be part of testing of equipment's prior to issue of completion certificate.
- b. Concessionaire: A systematic self-monitoring by the concessionaire through a quality management system, measuring availability and performance of services to the specified performance standards. The concessionaire should report the outcome of such monitoring on a periodic basis (monthly) to the independent monitor.
- c. User Satisfaction Survey: The ability for users to report failures by way of including the complaint mechanism and user survey provisions.
- d. Accreditation Requirement: The concession agreement will provide provisions for requirement of accreditation from specific agencies, such as National Accreditation Board for Hospital for primary health clinic.
- e. Disclosure on Website: The concession agreement will provide that the Primary Health Clinic should update on its website on weekly basis the facilities used by and available for BPL Patients. Further, in order to provide transparency, all reports should be published at the website of the concessionaire for the primary health clinic.
- **Recommended performance monitoring mechanisms:** There is no single best option; the most optimal approach is to have a multi-layered monitoring framework. In the multi-layered framework the key elements will be the Independent Monitor and the user satisfaction survey. Around these elements other options can also be included in the concession agreement. The layered approach to monitoring provisions needs to be in line with the magnitude and scope of the project. This will ensure that where it is possible to have a less onerous system, it will be in the interest of all parties to do so. Equally, where the scope is large and project magnitude demands, a rigorous monitoring system needs to be specified in the concession agreement.





