

A Public-Private Partnership Model for Successful Healthcare Ventures

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Sol Price School of Public Policy International Laboratory
in partnership with the
Scuola di Direzione Aziendale dell'Università Bocconi di Milano

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The Sol Price Consulting Group is comprised of Master-level students from the Sol Price School of Public Policy at the University of Southern California, with concentrations in healthcare administration, public administration, urban planning, social work, and public policy. Student consultants have worked in partnership with the resources and research of Bocconi University.



Overview



Background



Challenges



Solutions



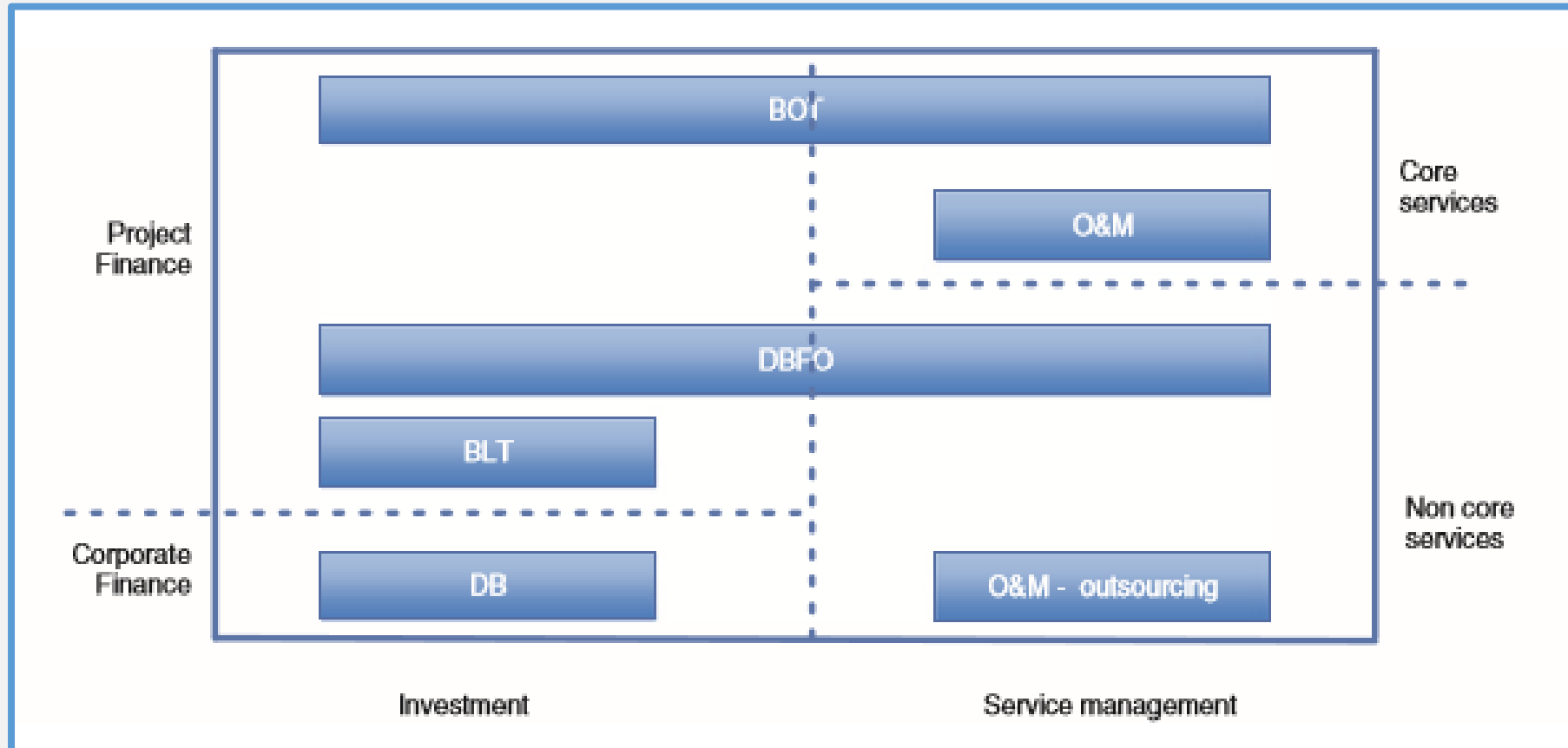
Conclusion

Problem Statement:

Public-Private Partnerships in Italy

- Italian Article 20 programme funded investment in the healthcare sector in 1988, with €15B in 1988 prices, yet this only covered about ½ of needed investments. Current total financial gap in Italian healthcare is measured at €31B (Vecchi, Hellowell & Longo, 2010).
- Recent political changes have resulted in unpredictable trading volumes on Italian debt and equity markets (Allen, 2018).
- Italian national debt as a percentage of GDP is one of the highest in the Eurozone, at over €2T, and recently revised by ISTAT due to bank bailouts.
- In this climate, new solutions are critical. PPPs provide a solution to address economy and efficiency, but solutions to monitor effectiveness must be the highest priority.
- High quality and competencies in the public sector are needed to attract private sector investments in a reliable way. Solutions to structure, negotiate and implement contracts in public service can move PPPs forward, past a one-size-fits-all approach for the nation.

Need for Flexibility in PPP Contracts



Vecchi, V., & Hellowell, M. (2018). Public–Private Partnerships: Recent Trends and the Central Role of Managerial Competence, in *The Palgrave Handbook of Public Administration and Management in Europe*. London: Palgrave Macmillan UK.

Healthcare Goals for Italy

Maintain Universal Care



Update Infrastructure of Healthcare Facilities



Expand Value-Based Care



Challenges

Lack of public resources
and engaged investors

1

PPP is still considered a
difficult approach with overly-
complex projects

3

2

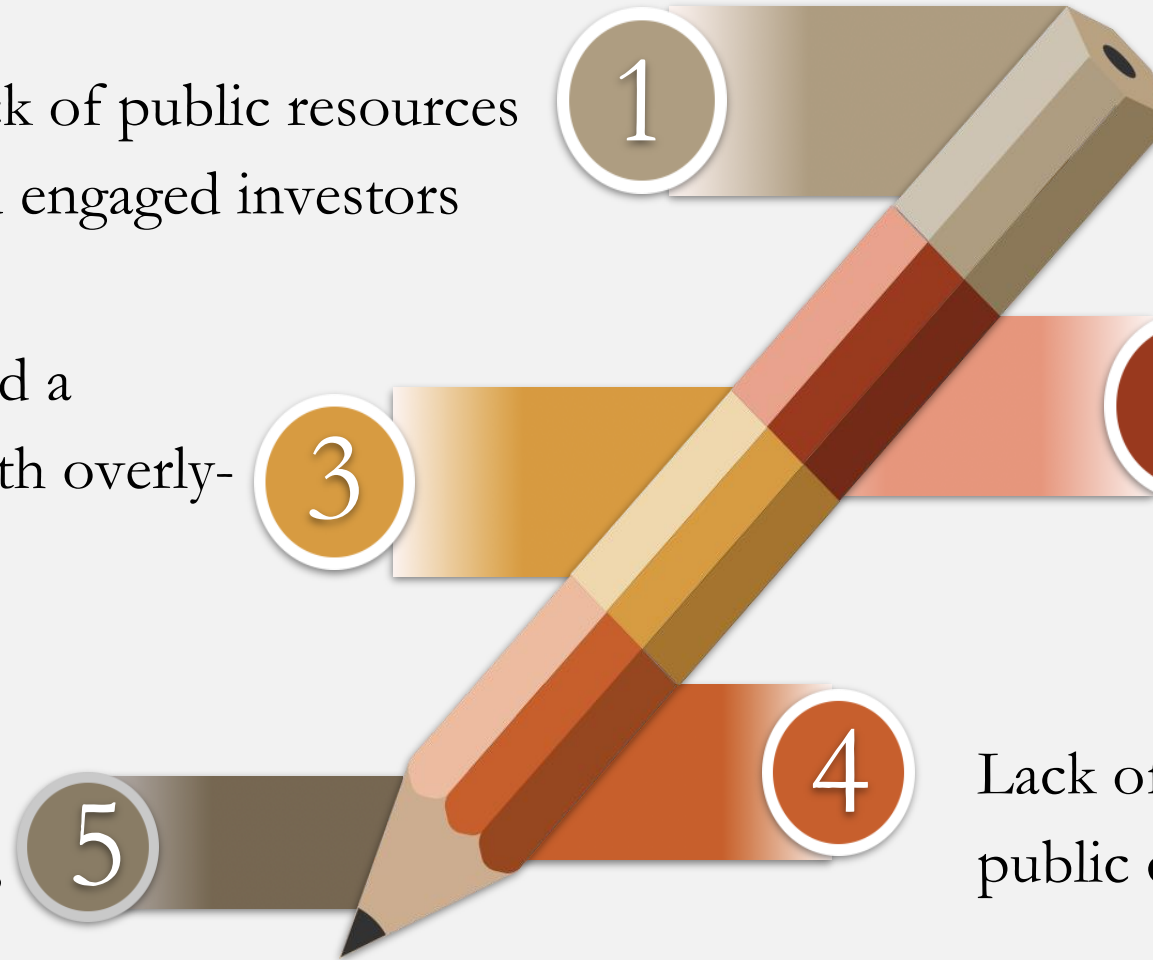
Lack of clear PPP
policies

Information and
competency asymmetries,
making performance
management complex

5

4

Lack of acceptance by
public citizens

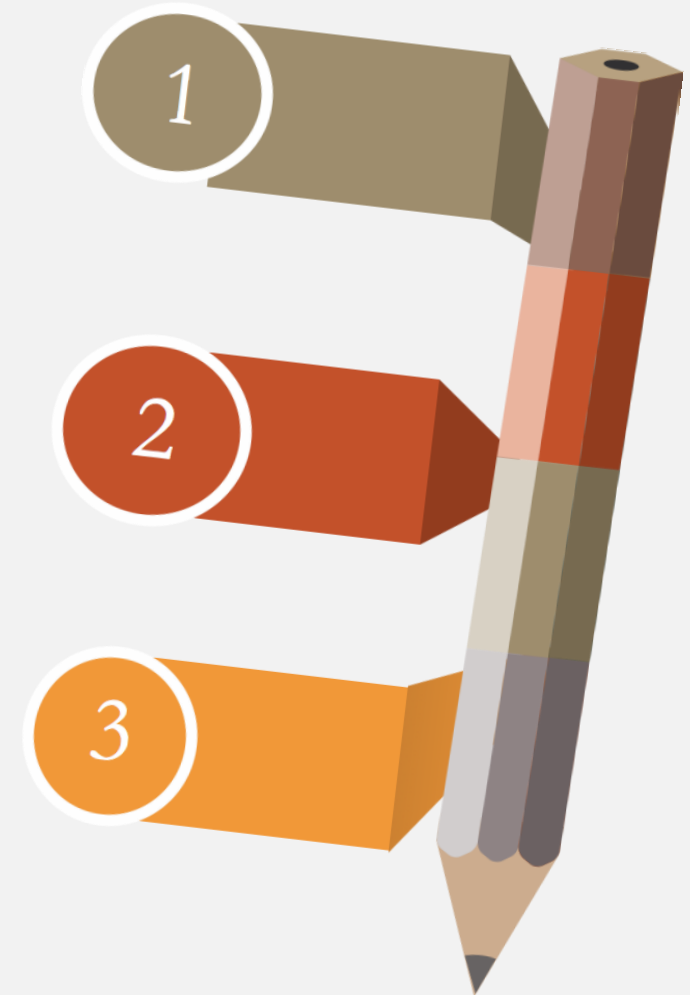


Solutions

Determining and monitoring the value of PPP

Increasing social acceptability of PPP

Increasing competencies in the public sector



Valued-Based Care

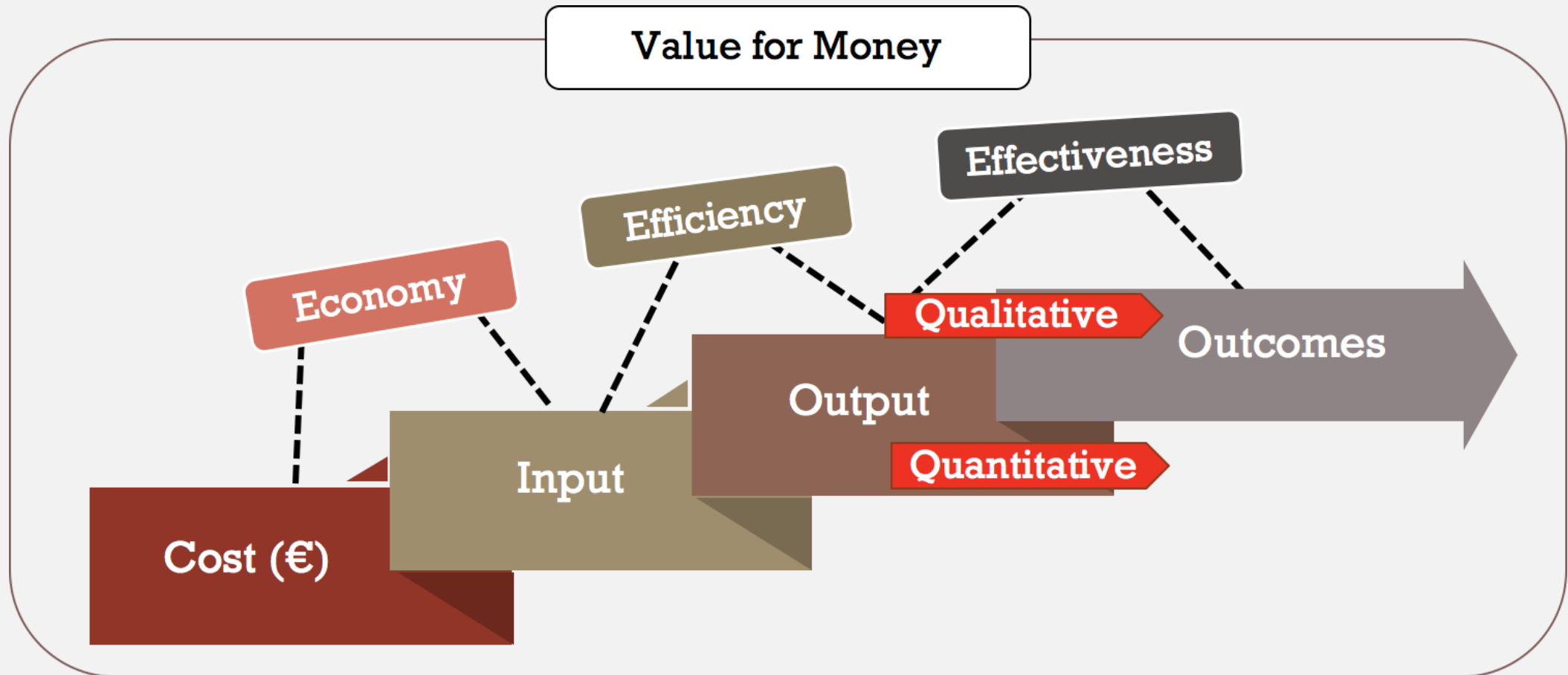
Valued based care is centered around quality of care and disease management, instead of quality of care provided. Bring focus quality of services provide to increase efficient use of services while decreasing total cost of services provided.



What are elements of value-based care?

- Improved care coordination across
- Better team work
- More attention to population health
- Using incentive with private partnership for improved care delivery

VfM must drive a PPP



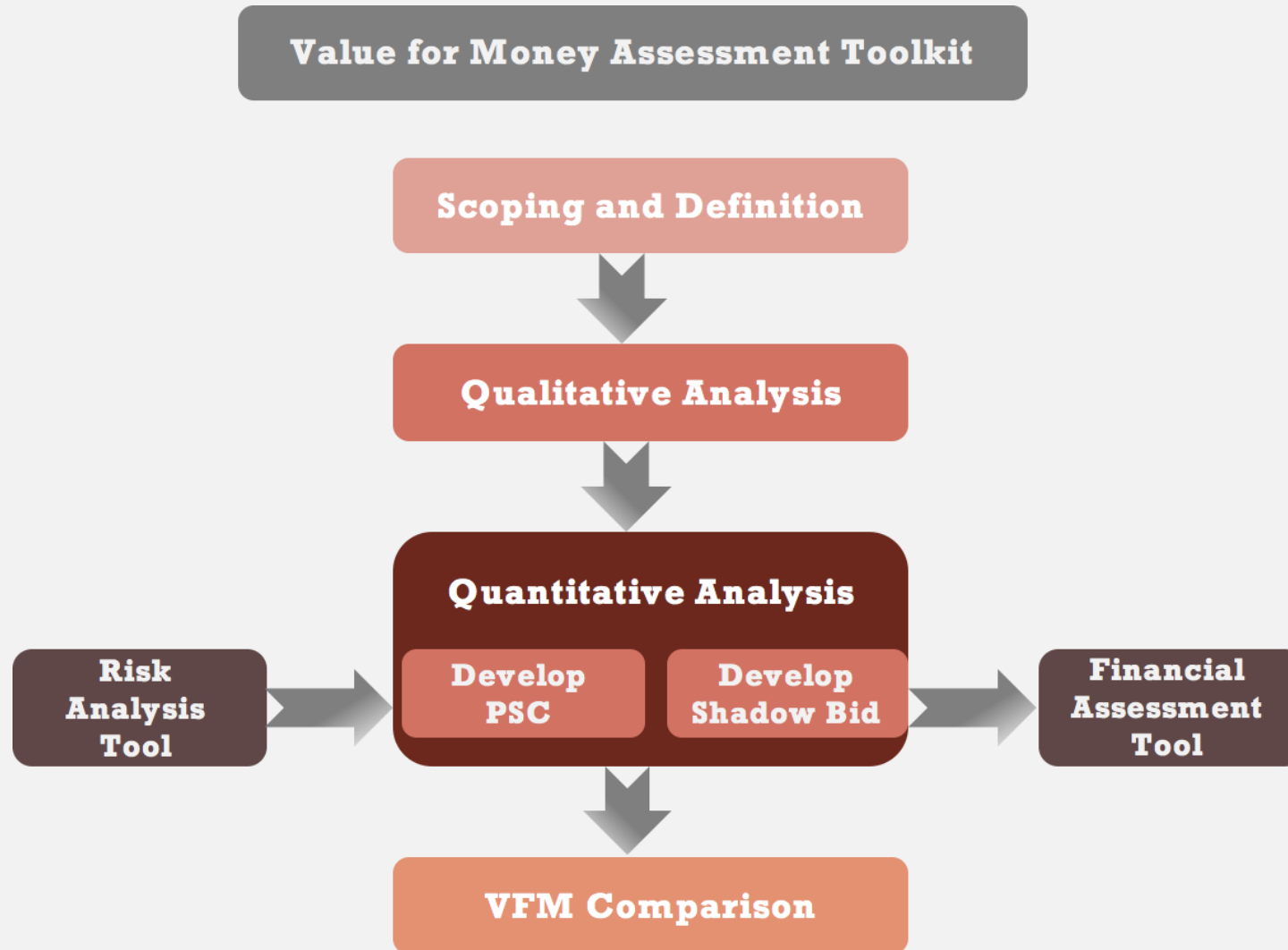
PPP Toolkit

Financial Analysis:
VfM and PfRAM

Training and
Transparency



Value for Money (VfM) Toolkit



PPP Fiscal Risk Assessment Model (PFRAM)



Developed by the IMF and the World Bank, **PFRAM** is an analytical tool to assess the potential costs and risks arising from PPP projects, quantifying macro-fiscal implications of PPP projects.

How PFRAM works: This Excel-based tool can help governments create effective policies and practices for public disclosure of PPP transactions.



PPP Fiscal Risk Assessment Model (PFRAM)



PFRAM generates standardized outcomes based on project-specific and macroeconomic data, including but not limited to a **summary risk matrix** of the project and a **debt sustainability analysis** with or without PPPs.

Risk Assessment Lens

- How risks are **allocated** between public and private?
- What is the **likelihood** of the risk to occur?
- What is the **fiscal impact** of the specific category of risks?
- What is the **risk-rating**, determined by the likelihood and fiscal impact of the risk?
- Is there a **mitigation strategy** prepared?
- How critical is the **priority action** to mitigate?

A Project Risk Matrix Example:

IDENTIFICATION OF RISKS		ALLOCATION	LIKELIHOOD	FISCAL IMPACT	RISK RATING <small>Likelihood*Impact</small>	MITIGATION STRATEGY	PRIORITY ACTIONS <small>Rating*Mitigation</small>
1	Governance risks	Public	Medium	Low	Low	NO	Medium priority
2	Construction risks	Shared	Medium	Medium	Medium	NO	High priority
3	Demand risks	Private	High	High	Critical	NO	Critical
4	Operational and performance risks	Shared	Low	Low	Irrelevant	NO	NO action required
5	Financial risks	Private	Medium	Low	Low	YES	Low priority
6	Force majeure	Shared	Low	High	Medium	NO	High priority
7	Material adverse government actions	Public	Low	Low	Irrelevant	NO	NO action required
8	Change in law	Public	Low	Medium	Low	YES	Low priority
9	Rebalancing of financial equilibrium	Private	Low	High	Medium	NO	High priority
10	Renegotiation	Shared	Medium	High	High	YES	Medium priority
11	Contract termination	Shared	Low	Medium	Low	NO	Medium priority

Processes to Attract Investors: What We Don't Know



1. What are the rules that make PPP unattractive to private sector partners?

2. How are public sector partners disincentivized to innovate?

3. How can we build capacity for public partners to engage with private sector partners on equal grounds?

Social Acceptability: Partners Not Vendors

Three critical conditions characterize our conception of emerging PPPs:

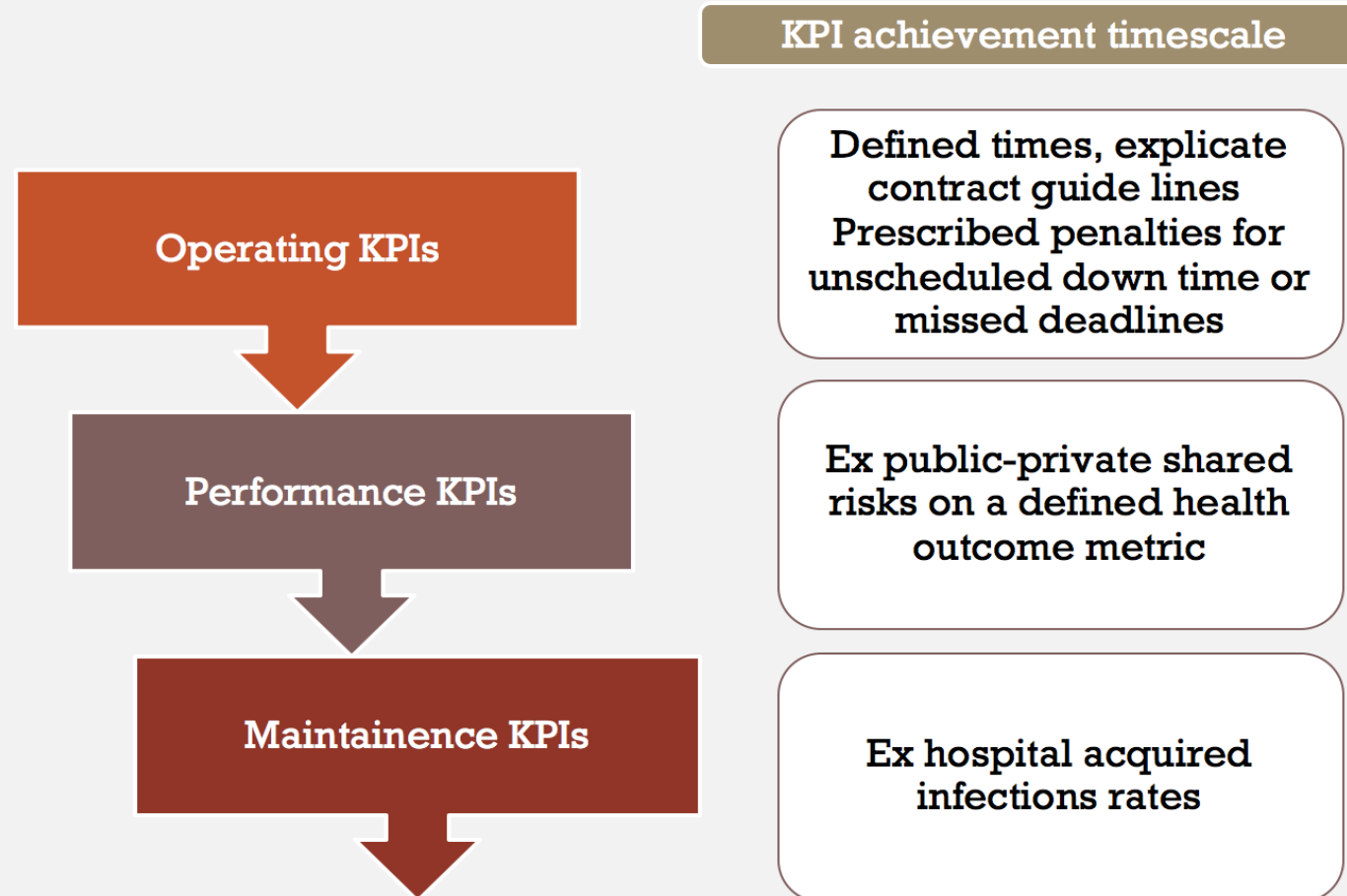
1. Long-term relationships
2. Partnerships in decision making
3. Negotiated allocation of risk

Key Elements

- PPP as a relationship engagement tool
- High-demand relationships
- All partners involved and communicating when developing key outcomes
- Rules cannot stifle innovation
- Barriers to profitability



Accountability: Monitoring, Reporting & Key Performance Indicators



The Case *for* PPP: Bluewater Hospital, Canada

- **Project Type:** BF - Build Finance
- **Price of Contract** \$214.1 million CAD
- **Estimated Value for Money:** \$16.2 million CAD
- **EllisDon Corporation was in charge of:**
 - Completing build by end of 2011
 - Sharing financing risk for project construction
 - Building according to all contract requirements



Status



Public Reporting

Related Links

- » [Bluewater Health](#)

Announcements

- » **Request for Qualifications Issued - Mar. 21, 2006**
- » Request for Proposals Issued - Oct. 20, 2006
- » Request for Proposals Deadline Update - Jan. 24, 2007
- » Request for Proposals Deadline Update - Feb. 22, 2007
- » Request for Proposals Deadline Update - Mar. 20, 2007
- » Request for Proposals Deadline Update - Apr. 23, 2007
- » Request for Proposals Closed - May 1, 2007
- » Winning Bidder Named - Aug. 29, 2007
- » Financial Close - Oct. 4, 2007
- » Construction work starts - Oct. 12, 2007
- » Topping Off ceremony - Apr. 20, 2009
- » Completion of New Main Entrance Exterior - Oct. 23, 2009
- » Grand Opening - June 28, 2010
- » Substantial Completion - Nov. 15, 2011

Documents

- » Request for Proposals
- » Guaranteed Price Contract
- » RFP addendum - January 16, 2007
- » RFP addendum - February 22, 2007
- » RFP addendum - March 20, 2007
- » Project Agreement
- » Lender's Direct Agreement
- » Limited Assignment of Construction Contract
- » Value for Money Report

It is advised to require outcomes as specifically-defined by measurements reported publicly, as Bluewater has done here on their company website listing contracts, updates, and contract-determined metrics.

New Key Performance Indicator Methods

Old Health Metrics

Patient Wait Times

Days Spent in Hospital

DRG Codes

C-Sections Performed



New Health Metrics



Hospital Accrued Infections



Patient Mortality Rate



HbA1C



Missed or Inaccurate Diagnoses



Hypertension



Diabetes



Stroke Survival Rate



Kidney Disease



Smoking Status



Hospital Falls



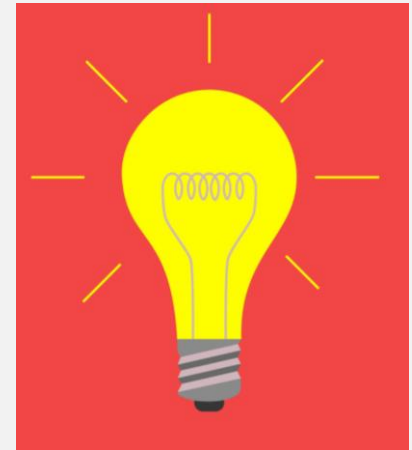
Heart disease /
Congestive heart failure

Entrepreneurship as an Element of Social Acceptability

- According to the World Economic Forum, Italy has shown an increase in productivity significantly lower than the EU average.
- Globalization and the shift towards knowledge-based economies in the developed world have shifted away from traditional monetary and fiscally-based national public policies. Yet academic literature is often vague on new solutions - over 'what not to do' (Vecchi, Brusoni, & Borgonovi, 2014).
- Both public and private managers should be active in supporting enterprise growth and development, networking with local stakeholders, and searching for additional resources.
- Entrepreneurship is a main focus of development policies, but how can policy makers, public authorities and other local agencies encourage entrepreneurs?

Investment options from literature include:

- Public-private venture capital
- Incubators
- Start-ups



The Case *for* Entrepreneurship:

Karolinska Institutet's “KI Innovations”

- Receives and evaluates project proposals in life science research areas such as pharma, diagnostics, and medtech.
- Utilizes expertise, contacts, and funding that can help researchers verify the potential of their projects and take projects toward commercial release.
- Guides investors through specific project phases (OUTREACH, START, and DRIVE), and uses business coaches to give advice on areas such as market potential, intellectual property, regulatory compliance, and legal issues.
 - At the beginning phase (START), projects are mainly supported internally. Startup companies without connections to academia are also supported.
 - Investments that KI Innovations can make within the later phases are financed via successful exits and licensing deals for projects in which KI Innovations has current or previous ownership.



Questions Around PPP Accountability



Questions around
PPP Monitoring

1. What are the key outcomes that you would like to see included in PPP monitoring and assessment?

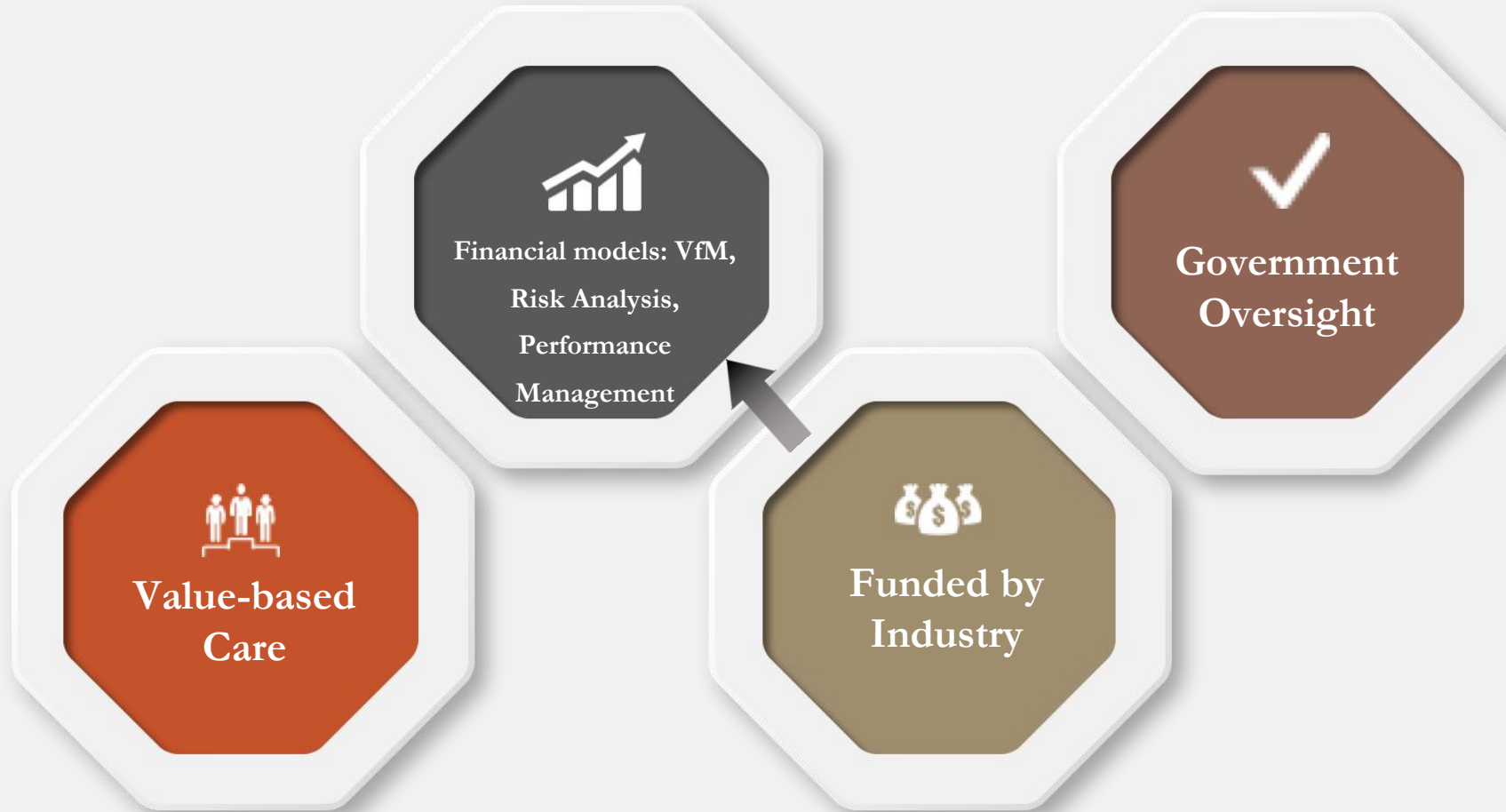
2. Who are the critical targets for health related outcomes (such as reduction in severe diabetics, proportion of the population screened for colon cancer)?

3. How can we engage health care professionals, especially physicians, in participating in the outcomes assessment process for PPP?

4. What are the roadblocks for public sector managers to engage in outcomes assessment for PPP?

5. How do we engage public sector managers in value-based care? Are there incentives that we can use to motivate them?

Increasing Competencies in the Public Healthcare Sector



Public Sector Capacity

PPP development and evaluation requires important public sector capacity, a defined scope and value of a given project

- Contracts available for open, competitive bid
- Accountability partners
- Defined economic operators
- Defined explicit contributions of parties
- Risk-sharing structure
- Increasing transparency
- Rules around payment mechanisms and how to address renegotiation in unforeseen situations

Future Public Sector Capacity

But more importantly, public sector capacity needs to include:

- Ability to negotiate key performance measures that include treatment outcomes
- Ability to assist private sector partners in adapting processes that will improve outcomes
- Competence to make explicit changes to agreed outcomes to address new information or problems that were unanticipated
- Communication skills to explain the project process and outcomes in terms meaningful to clinicians, patients, and public sector partners

The World Bank PPP certification program

- Sponsored by multilateral development banks and the World Bank Group, aimed to enhance PPP performance
- The certification program guide “Body of Knowledge” collects good practices structured by PPP life-cycle stages around the world
- Designed to create a consistency of terms used in PPPs and to standardize the process for the delivery of PPP projects worldwide.

Key elements of certification:



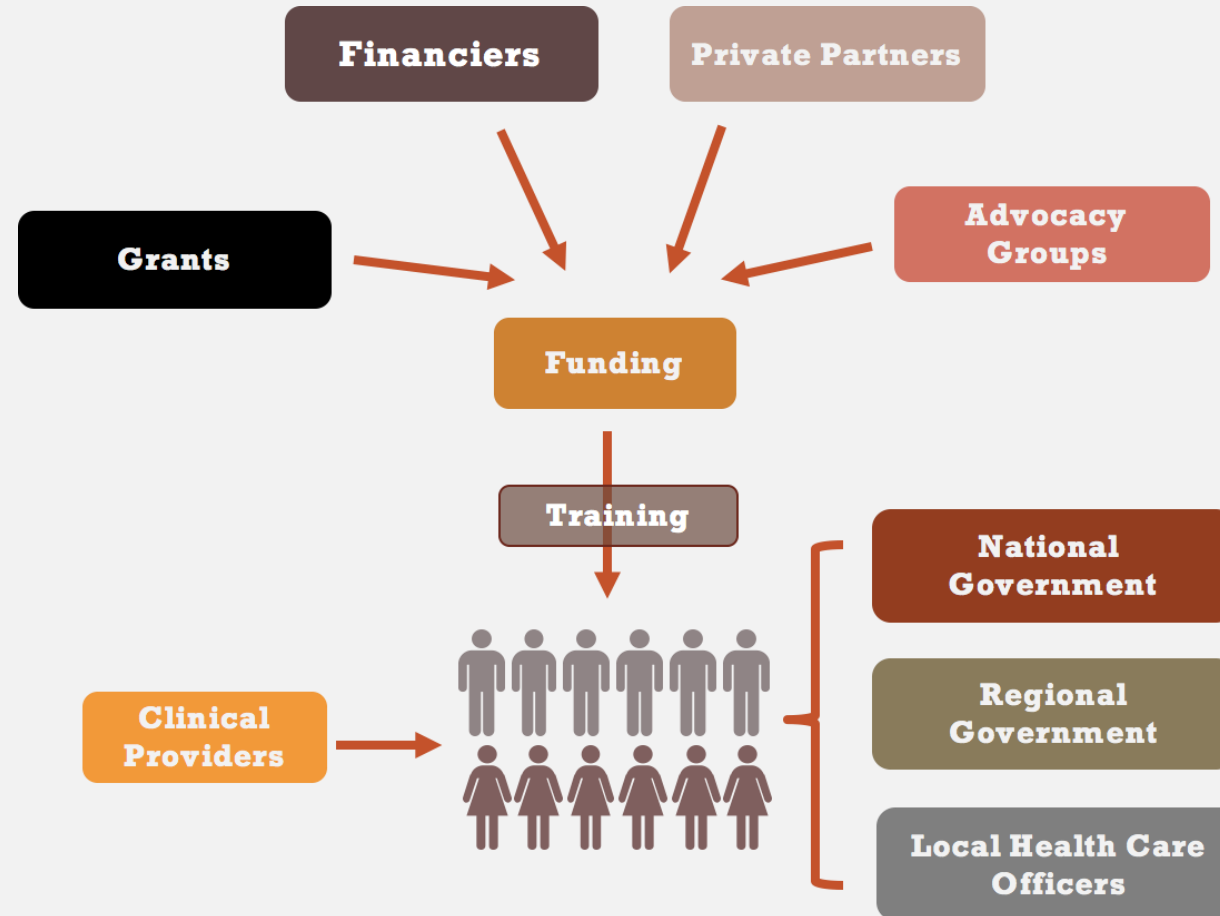
THE CP³P PATHWAY

The World Bank final step in the training is “*operational handback*”

In order to develop public sector capacity in PPP and other health management objectives, the key participants in PPP need to expand their “operational handback” understanding to:

- Integrate a web-based reporting process that helps identify progress
- Engage stakeholders in discussions that illustrate lessons learned through the process, so that future PPP projects can be improved
- Use the project process to identify new needs that can be addressed through PPP
- Provide new ways to engage stakeholders in project development to address needs

Training Consortia



The Case *for* a Training Consortium: The World Federation of Hemophilia

World Federation of Hemophilia Training Programme for Healthcare Providers and Patients for Comprehensive Care and Development of Advocacy

- Main Funding Stream: pharmaceutical companies (i.e. Bayer, Pfizer, Green Cross, etc.)
- Major Goal: Engage and Inform Governments on processes and functions to successfully manage hemophilia
- Training Model: Develop and supply materials (i.e. factsheets, technical assistance, and visits/lectures)
- Audience: Public agency healthcare professionals including physicians and frontline clinical staff



Questions around Training & Competency



Questions around
training for
competencies

1. How can we encourage public health sector managers to become entrepreneurs?

2. What are the key roadblocks to innovation in the public sector, especially in the healthcare environment?

3. How can we engage private sector partners to assist in developing entrepreneurs in the health care environment (public sector, clinical professionals, and administrators especially in the PPP process?

4. How do we get private sector partners interested in collaborating for PPP training funding?

5. How do we encourage private and public sector partners in the PPP process to share positive and negative stories regarding the PPP process and outcomes?

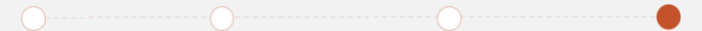
PPP Best Practices

The Organization for Economic Co-Operation and Development provides 10 best practices in the PPP procurement process (OECD, 2008):

1. Affordability and value for money as benchmarks for PPP viability.
2. Value for Money as the primary objective in PPP design.
3. Fiscal rules and expenditure limits imposed either legally or as political commitments.
4. Risk sharing in order to yield VfM.
5. Competition and contestability between potential private partners.
6. Budget documentation and transparency, including full details of guarantees and contingent liabilities.
7. Regulatory and legal framework to build trust
8. Institutional capacity to create, manage and evaluate the PPP.
9. Public sector comparator (PSC) to improve the scrutiny of a PPP project and improve the assessments of value for money.
10. Political support: from the highest level and ideally across all party political lines, as PPP contracts tend to last longer than the elected terms of governments.

Conclusions

1. PPP projects have the potential to play a stronger role in health care infrastructure and services
2. The challenges of PPP in Italy are solvable - there are good examples of true partnerships that are expanding project scope toward value-based health
3. Key training elements can expand the capacity of public sector managers and decision makers
4. Flexible PPP implementation will encourage entrepreneurship, innovation, and economic development



THANK YOU

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References

- Abbas, T. La Stampa. (2018). Wait list mismanagement reveals corruption in Italy's public healthcare system. *La Stampa*. Retrieved from <http://www.lastampa.it/2018/01/19/esteri/wait-list-mismanagement-reveals-corruption-in-italys-public-health-care-system-4EovrE9FRu6RYawqcDtAUL/pagina.html>.
- Africa News Service. (2016) "Public-Private Partnership Training Programme for Watershed Southern African Hydro-Power Project to Take Place in Centurion [press release]." *Business Insights: Essentials*. Web. 31 May 2018.
- Argento, D., Grossi, G., Tagesson, T., & Collin, S. O. (2010). The 'externalisation' of local public service delivery: experience in Italy and Sweden. *International Journal of Public Policy*, 5: 41-56.
- Barbarito, Pincirolì, Mason, Marcegaglia, Mazzola, & Bonacina. (2012). Implementing standards for the interoperability among healthcare providers in the public regionalized Healthcare Information System of the Lombardy Region. *Journal of Biomedical Informatics*, 45(4), 736-745.
- Barberio, M. (2018). *Lobbying and Non-Market Strategies* [Powerpoint Slides].
- Bonacinal, S., Marcegaglia, S., Pincirolì, F. 2011 Barriers Against Adoption of Electronic Health Record in Italy, *Journal of Healthcare Engineering* 2(4). 509-517.
- Buccioli, A., Camboni, R., and Valbonesi, P. (2017). Buyers' Ability in Public Procurement: A Structural Analysis of Italian Medical Devices. Retrieved from: <https://ssrn.com/abstract=3064621> or <http://dx.doi.org/10.2139/ssrn.3064621>.
- Brenna, E. (2011, May). The Lombardy healthcare System. Retrieved from <http://www.unicatt.it/Istituti/EconomiaImpresaLavoro/Quaderni/ieil0063.pdf>
- Ciaschini M., De Angelis M., Monteriù A., Pretaroli R., Severini F., & Socci C. (2016). The Role of ICT in the Italian Healthcare System. In: Conti M., Martínez Madrid N., Seepold R., Orcioni S. (eds) Mobile Networks for Biometric Data Analysis.
- Cicchetti, A., & Gasbarrini, A. (2016). The healthcare service in Italy: regional variability. *European Review for Medical and Pharmacological Sciences*, 20(1 Suppl): 1-3.
- Della Porta, D., Sberna, S., and Vannucci, A. (2015). Bribery in Healthcare: The Organization of Political Corruption in the Healthcare Sector. *Politiche Sociali / Social Policies*, 2. doi: 10.7389/80420.
- De Schepper, S., Dooms, M., Haezendonck, E. (2014). Stakeholder dynamics and responsibilities in Public–Private Partnerships: A mixed experience. *International journal of Public Management*. (32)7 2010-2021.
- Donatini, A. (2016). International healthcare System Profiles: The Italian Healthcare System. *The Commonwealth Fund*. Retrieved from: <http://international.commonwealthfund.org/countries/italy/>.
- Espigares, J. L. N., and Torres, E. H. (2015). Public-private partnership as a new way to deliver healthcare services (PDF). University of Granada. Retrieved from: https://www.researchgate.net/publication/28268723_Public_and_private_partnership_as_a_new_way_to_deliver_healthcare_services.
- EU Health Programme - Public Health - European Commission. (2018, May 04). Retrieved May 28, 2018, from https://ec.europa.eu/health/funding/programme_en
- European Commission. (2018). The European Semester: why and how. Retrieved from https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/european-semester/framework/european-semester-why-and-how_en

References

- European Commission. (2018, March). Cohesion Policy: 30 years investing in the future of European Regions. Retrieved from http://ec.europa.eu/regional_policy/sources/docgener/panorama/pdf/mag64/mag64_en.pdf.
- European Commission. (2014, June). An Introduction to EU Cohesion Policy 2014-2020. Retrieved from http://ec.europa.eu/regional_policy/sources/docgener/informat/basic/basic_2014_en.pdf.
- European Court of Auditors (ECA). (2018). Public Private Partnerships in the EU: Widespread shortcomings and limited benefits. Retrieved from: https://www.eca.europa.eu/Lists/ECADocuments/SR18_09/SR_PPP_EN.pdf.
- European Regional Development Fund. (n.d.). Retrieved May 28, 2018, from http://ec.europa.eu/regional_policy/en/funding/erdf/
- Infrastructure Ontario. (2018). Bluewater Health. Retrieved from <http://www.infrastructureontario.ca/Bluewater-Health>.
- International Monetary Fund. (n.d.) PPP Fiscal Risk Assessment Model (PFRAM). Author: Washington, DC. Retrieved from: <https://www.imf.org/external/np/fad/publicinvestment/pdf/PFRAM.pdf>.
- Jomo, K. S., Chowdhury, A., Sharma, K., & Platz, D. (2016). Public-Private Partnerships and the 2030 Agenda for Sustainable Development: Fit for Purpose?. United Nations, Department of Economic and Social Affairs.
- Karolinska Institutet AB. (2018). Home. Retrieved from <http://karolinskainnovations.ki.se/en>.
- Kasanen E., Lukka K., and Siitonen A. (1993). The constructive approach in management accounting. *Journal of Management Accounting Research*, 5: pp. 243-264
- Kassim, E. S., & Hussin, H. (2013). A success model for the Malaysian government e-procurement system: The buyer perspective. *International Journal of Electronic Government Research*, 9(1), 1-18.
- Li, Abraham, & Cai. (2017). Infrastructure financing with project bond and credit default swap under public-private partnerships. *International Journal of Project Management*, 35(3), 406-419.
- Maifredi, G., Orizio, G., Bressanelli, M., Domenighini, S., Gasparotti, C., Perini, E., & Gelatti, U. (2010). Italian hospitals on the web: a cross-sectional analysis of official websites. *BMC Medical Informatics and Decision Making*, 10(1): 17.
- Mauro, M., Maresso, A., & Guglielo, A. (2016). Health Decentralization at a dead-end: Towards new recovery plans for Italian hospitals. *Elsevier: Health Policy*, 581-587.
- Ministry of Health. (2017, October). Essential Assistance Levels: 11 Compliant Regions in 2015 According to “Grid LEA.” Retrieved from: http://www.microsofttranslator.com/bv.aspx?from=it&to=en&a=http%3A%2F%2Fwww.salute.gov.it%2Fportale%2Fnews%2Fp3_2_1_1_1.jsp%3Flingua%3Ditaliano%26menu%3Dnotizie%26p%3Ddalministero%26id%3D3123.
- Ministry of Health, Kenya. (2015, February 25). Kenyan Ministry of Health Selects GE Healthcare as a Strategic Partner to Support Healthcare Modernization Program. Retrieved from <https://www.businesswire.com/news/home/20150224006553/en/Kenyan-Ministry-Health-Selects-GE-Healthcare-Strategic>.
- Neri, S. (2015). Interregional patient mobility in the Italian NHS: A case of badly-managed decentralization: Comment on “Regional Incentives and patient cross-border mobility: evidence from the Italian experience.” *International journal of health policy and management*, 4(12): 857.

References

- Nuti S., Seghieri C., and Vainieri M. (2013). Assessing the effectiveness of a performance evaluation system in the public healthcare sector: some novel evidence from the Tuscany region experience. *Journal of Management and Governance*; 17: pp. 59-69.
- Nuti, & Seghieri. (2014). Is variation management included in regional healthcare governance systems? Some proposals from Italy. *Health Policy*, 114(1), 71-78.
- OECD (2014), *OECD Reviews of Healthcare Quality: Italy 2014: Raising Standards*, OECD Publishing. Retrieved from: <http://dx.doi.org/10.1787/9789264225428-en>.
- Organisation for Economic Co-operation and Development (OECD). (2008). *Public-private partnerships: In pursuit of risk sharing and value for money* (PDF). OECD Publishing, Paris.
- Organisation for Economic Co-operation and Development (OECD). (2015). *Italy 2014 – Raising Standards. OECD Reviews of Healthcare Quality*. OECD Publishing, Paris. Retrieved from: <http://dx.doi.org/10.1787/9789264225428-en>.
- Pacciani, F. (2018). *Public Procurement Laws and Regulations: Italy*. International Comparative Legal Guides (ICLG). Retrieved from: <https://iclg.com/practice-areas/public-procurement-laws-and-regulations/italy>.
- Parzanese, Maccarone, Caniglia, Pisani, Laurenzi, & Famulari. (2006). Organ Donation Quality Control in Abruzzo Region (Italy). *Transplantation Proceedings*, 38(4), 986-987.
- Pierce, G., Haffar, A., Ampartzidis, G., Peyvandi, F., Diop, S., El-Ekiaby, M., & Berg, H. (2018). First-year results of an expanded humanitarian aid programme for haemophilia in resource-constrained countries. *Haemophilia*, 24(2), 229-235.
- Radoushinsky, D. A. (2016). The impact of public-private partnerships on the development of communicative environment of innovative economy. *Scientific and Technical Lists of the St. Petersburg State Polytechnic University*, (5)251. Retrieved from: <https://cyberleninka.ru/article/n/the-impact-of-public-private-partnerships-on-the-development-of-communicative-environment-of-innovative-economy>.
- Ricchi, M. (2012). Case Study: PPP in Italian Health Sector. Presented to the United Nations Economic Commission for Europe (UNECE) Unita' Tecnica Finanza di Progetto (UTFP), Geneva. Retrieved from: https://www.unece.org/fileadmin/DAM/ceci/documents/2012/ppp/ppp_days/Day1/Ricchi.pdf.
- Roehrich, J. K., Lewis, M. A., & George, G. (2014). Are public–private partnerships a healthy option? A systematic literature review. *Social Science & Medicine*, 113: 110-119. doi:10.1016/j.socscimed.2014.03.037. Retrieved from: <https://www.sciencedirect.com/science/article/pii/S0277953614002871>.
- Russo P. E. and Monte D. D. (2017). Anti-corruption Policies in the Italian Public Health Administration. *Archives of Science*, 1: 110. Retrieved from: <https://www.omicsonline.org/open-access/anticorruption-policies-in-the-italian-public-health-administration-94044.html>.
- Sargiacomo, M., Ianni, L., D'Andreamatteo, A., Servalli, S. (2015). Accounting and the fight against corruption in Italian government procurement: A longitudinal critical analysis (1992–2014). *Critical Perspectives on Accounting*, 10.1016/j.cpa.2015.01.006.
- Sarvi, J., Balaji, V., & Pillay, H. (2015). Public-private partnership in information and communication technology for education. *Asian Development Bank*, (49), 1-8. Retrieved from: <https://www.adb.org/sites/default/files/publication/176953/ppp-ict-education.pdf>.

References

Sassi, F. (2006). Calculating QALYs, comparing QALY and DALY calculations, *Health Policy and Planning*, 21(5): 402–408. <https://doi.org/10.1093/heapol/czl018>. Retrieved from <https://academic.oup.com/heapol/article/21/5/402/578296>.

Shediac, R., Abouchakra, R., Hammami, M., & Najjar, M. R. (2008). *Public-Private Partnerships: A New Catalyst for Economic Growth*. Booz & Company.

Smart Specialisation - EU Science Hub - European Commission. (2018). Retrieved from <https://ec.europa.eu/jrc/en/research-topic/smart-specialisation>.

Soumare, I., & Lai, V. (2016). An analysis of government loan guarantees and direct investment through public-private partnerships. *Economic Modeling*, 59(508).

Stadtler, L. (2016). Scrutinizing Public–Private Partnerships for Development: Towards a Broad Evaluation Conception. *Journal of Business Ethics*, 135(1), 71-86.

Structural funds - Public Health - European Commission. (2018). Retrieved from https://ec.europa.eu/health/funding/structural_funds_en.

Transparency International Italia. (2013). Corruption and Waste in the Health System. Retrieved from: <https://www.transparency.it/corruption-and-waste-in-the-health-system/>.

United Nations Economic Commission for Europe (UNECE), World Health Organization (WHO), and The Asian Development Bank (ADB). (2012). A Preliminary Reflection on the Best Practice in PPP in Healthcare Sector: A Review of Different PPP Case Studies and Experiences. Retrieved from: http://www.unece.org/fileadmin/DAM/ceci/images/ICoE/PPPHealthcareSector_DiscPaper.pdf.

Vannucci, A. (2009). The Controversial Legacy of ‘Mani Pulite’: A Critical Analysis of Italian Corruption and Anti-Corruption Policies. *Bulletin of Italian Politics*, 1(2): 233-64. Retrieved from: https://www.gla.ac.uk/media/media_140182_en.pdf.

Vecchi, V. (2018, May 21). PPP in the Healthcare Sector. Lecture presented at Bocconi University, University of Southern California International Laboratory: Milan, IT.

Vecchi, V., Brusoni, M., & Borgonovi, E. (2014). Public Authorities for Entrepreneurship: A management approach to execute competitiveness policies. *Public Management Review*, 16(2), 256-273.

Vecchi, V. & Cusumano, N. (2018). Choosing the Right PPP. In *Public-private partnerships in health: Improving infrastructure and technology* (15-42). Palgrave MacMillan.

Vecchi, V., & Hellowell, M. - A. (2018). *Public-private partnerships in health: Improving infrastructure and technology*. Palgrave MacMillan.

Vecchi, V., & Hellowell, M. - B. (2018). Public–Private Partnerships: Recent Trends and the Central Role of Managerial Competence, in *The Palgrave Handbook of Public Administration and Management in Europe*. London: Palgrave Macmillan UK.

Vecchi, V., Hellowell, M., & Longo, F. (2010). Are Italian Healthcare organizations paying too much for their public-private partnerships? *Public Money and Management*, 30(2): 125-32.

The World Bank. (2017). *Public-Private Partnerships Reference Guide, Version 3*. (PDF). Retrieved from: https://library.pppknowledgelab.org/documents/4699?ref_site=ppiaf.

World Health Organization (WHO). (2000). *The World Health Report 2000: Health systems – improving performance* (PDF). Geneva, Switzerland. Retrieved from: http://www.who.int/whr/2000/en/whr00_en.pdf?ua=1.