Beth Israel Lahey Health

60 Day Report to the Massachusetts Office of the Attorney General

Provided Under Paragraph 129 of the Assurance of Discontinuance

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Introduction

Overview of Reporting Requirements

As part of the Assurance of Discontinuance ("AOD") filed by the Massachusetts Office of the Attorney General ("AGO") on November 29, 2018, Beth Israel Lahey Health ("BILH") has agreed to a broad set of enforceable commitments, including:

- A seven-year price constraint
- A commitment to invest $71.6 million over eight years to improve healthcare access for vulnerable populations
- Expanded commitments to physician participation in the MassHealth program
- Joint business planning with safety net hospital affiliates and community health centers
- Appointment of a third party monitor along with ongoing reporting regarding cost savings, efficiencies, retention of appropriate care in community settings, physician recruitment, clinical volume, payor mix, and relevant financial data
- Governance commitments related to diversity, geographic representation, and meeting the healthcare needs of vulnerable populations

Consistent with these conditions, BILH has committed to rigorous and detailed reporting requirements, beginning with the issuance of a report 60 days following March 1, 2019 ("60-Day Report") and continuing thereafter in the form of annual reports issued on January 15 of each calendar year for a ten-year period. As outlined in Paragraphs 129, 132 and 135 of the AOD, these reports will describe:

- BILH's targeted cost savings (and outcomes achieved) as a result of operational synergies, improved patient care efficiency, and shifting community-appropriate care to higher value sites of care
- Elimination of clinical services, creation of new clinical services, and consolidation of operations
- Volume of patient encounters at BILH facilities by Service Line, payer, and patient origin
- Number of patients covered by risk contracts, broken out by payer category
- A list of all physicians who become employed or begin joint contracting with BILH
- Annual system revenue, by payer and payment model
- Employment or joint contracting of primary care providers with prior employment or jointly contracting affiliation with a Safety Net Hospital

Scope of this Report

This 60-Day Report represents the first compendium of data and information submitted by BILH under Paragraphs 129 of the AOD, focusing on BILH targeted cost savings. Given the recency of the merger and relevant data constraints, BILH and the AGO have reviewed and mutually agreed to the inclusion of a subset of data elements in the 60-Day Report, consistent with Paragraph 126 of the AOD. As a new health system, BILH brings together a wide range of disparate clinical and operational data systems. In advance of integrating these systems into a common platform, there are significant near-term barriers to consolidated data reporting.

BILH Targeted Cost Savings

Overview

The formation of BILH has the potential to create significant cost savings that will result in improved performance for the new health system. As a result, BILH will be able to reinvest in strengthening community healthcare providers, expanding access to care, and improving quality to deliver on its promise to "make our patients, families and communities healthier."

BILH is committed to achieving these targeted clinical and operational savings through initiatives spanning a wide range of areas, including reduction in back-office administrative costs, improved purchasing, and enhanced patient care efficiencies. In total, BILH estimates that these targeted savings will result in margin improvement of between $59.8 million and $86.4 million annually by year five of operations, not including additional anticipated value from areas such as clinical service line volume growth and reduced outmigration of care, as well as certain offsetting transaction-related costs.

In addition to these savings, BILH anticipates significant additional cost savings to the Commonwealth associated with the shift of appropriate care to higher value settings, the benefits of which are not prospectively estimated but will be monitored and reported on an annual basis moving forward according to measures and methodologies described in this report.

Targeted cost savings represent a significant portion, though not the total, of the originally projected $88 million to $169 million in annual margin improvement by year five of operations. As noted here, additional factors such as projected clinical service line volume growth and reduced outmigration of care contribute to additional projected margin improvement. BILH is in the process of implementing a wide range of clinical integration initiatives, in areas such as Primary Care, Behavioral Health, Cancer, Musculoskeletal / Orthopedics, Maternal-Fetal Medicine and Newborn Care to create a seamless, accessible system of care for patients and families in Eastern Massachusetts. The scope of this report as outlined in the AOD does not include these initiatives, and similarly does not account for certain offsetting transaction-related expenses.

Table 1. BILH Targeted Cost Savings by Year as a Result of Consolidation and Patient Care Efficiencies (for Fiscal Years ("FY") Ending September 30)

$ in Millions	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Consolidation of Operations					
Supply Chain	1.5 – 1.9	8.1 – 9.9	17.9 – 21.9	21.6 – 26.4	25.2 – 30.8
Revenue Cycle	0.3 – 0.6	2.8 – 5.2	7.2 – 12.3	8.6 – 14.5	9.2 – 15.6
Other Operations	0.8 – 1.0	4.2 – 5.5	10.8 – 14.0	12.8 – 16.6	13.0 – 16.9
Patient Care Efficiencies					
Pharmacy	0.7 – 1.7	2.9 – 6.2	4.0 – 8.5	4.0 – 8.5	4.0 – 8.5
Laboratory	0.0 – 0.0	0.7 – 1.1	3.6-5.7	4.8 – 7.7	4.8 – 7.7
Clinical Engineering	0.1 – 0.3	0.5 – 1.4	1.2-2.9	1.4 – 3.1	1.4 – 3.1
Clinically Integrated Network	(0.1) – 0.8	0.8 – 2.6	2.2-3.8	2.2 – 3.8	2.2 – 3.8
Total	**3.4 – 6.4**	**20.0 – 31.8**	**47.0 – 69.2**	**55.4 – 80.6**	**59.8 – 86.4**

Consistent with Paragraph 129 (a) to 129 (c) in the AOD, this 60-Day Report summarizes BILH's targeted cost savings in three domains: the elimination of redundant operations, improved efficiencies related to patient care, and shifting community-appropriate care to higher value sites of care. Given the potential subjectivity associated with categorizing different merger-related initiatives within these three domains, BILH will attempt to maintain as much consistency as possible from year to year in describing existing initiatives within the same categories.[1] For this report, BILH will summarize the following areas of targeted cost savings in the following manner:

- Consolidation of operations will include Supply Chain, Revenue Cycle, and Other Operations
- Patient care efficiencies will include Pharmacy, Laboratory, Clinical Engineering, and Clinically Integrated Network
- Shifting care to higher value sites will include community hospital volume, community hospital Case Mix Index ("CMI"), and outmigration of care to higher-cost providers.

The categories of savings noted in this report will be monitored by initiative and in aggregate to ensure that BILH is continuously optimizing its savings potential. Based on the methodologies outlined below, BILH has begun to implement a system for routinely reporting progress against synergy targets and is developing summary outputs that will reflect the targeted savings, savings achieved, and variance to target on an annual basis.

A. Consolidation of Operations

BILH brings together five legacy organizations and their provider networks to form one integrated health system. To ensure its success, BILH is putting in place a new approach to operations and management that will allow it to work across legacy organizations, care settings, specialties and geographies to ensure its patients are receiving coordinated care in the communities where they live and work.

[1] One exception to this is new merger-related savings initiatives that may emerge from year to year. These initiatives, by definition, will not have been prospectively categorized within the three domains defined within Paragraphs 129 (a) to (c).

Such an approach will require the consolidation of administrative and operating functions to ensure that BILH operates as an efficient, effective and unified system. Operational savings will be achieved through vendor consolidation, contract management, and staffing efficiencies. BILH will realize savings for these operational functions through economies of scale, while also adopting operating models to optimize resources and human capital. BILH will achieve cost savings from consolidation of operations based on progress achieved in Supply Chain, Revenue Cycle, and Other Operations initiatives as described below.

Supply Chain

Supply Chain is projected to be the single largest source of cost savings for BILH, with a 5-year estimated value of $25.2M-$30.8M in annual run-rate savings. Due to its increased scale, BILH will be able to purchase supplies and services in aggregate volume, often obtaining lower prices from vendors because buyer groups are more powerful when they concentrate large volume in their purchases.[2]

These savings will be obtained and maximized by centralizing operations related to purchasing and contracting, which are carried out separately at each of the member organizations comprising BILH. As part of this centralization, a system-wide Value Analysis process will be established to evaluate and maximize the value of products and supplies used at BILH. A robust Value Analysis process ensures that BILH uses products and supplies with demonstrated clinical effectiveness while obtaining best possible pricing. A Value Analysis steering committee will govern the introduction, standardization, and utilization of clinical products, new clinical technology, and clinical services used within BILH, to ensure cost-effective, safe, and clinically effective care.

BILH is also consolidating to one Group Purchasing Organization (GPO) relationship. GPOs are membership organizations comprised of healthcare providers. They help their members realize savings by aggregating the purchasing volume of all members and using that volume as leverage when negotiating prices with vendors, manufacturers, and distributors. Currently, each member of BILH has its own GPO relationship, with disaggregated volume and potentially different pricing for the same products. By consolidating to one GPO relationship, BILH will achieve one best price for each product across the system. Additionally, by placing the aggregate purchasing volume of BILH with a single GPO, that GPO will have better leverage when negotiating on its members' behalf, further improving the pricing BILH receives. Finally, BILH will look for opportunities to leverage its scale to negotiate custom, direct agreements with vendors of supplies and purchased services.

Supply savings will be tracked by applying the difference between legacy pricing for an item (tracked internally) and new pricing for an item (provided by the GPO or directly from vendors) to the existing annual volume base; this savings is carried forward in subsequent years as the run-rate to reflect ongoing savings relative to baseline. Savings on purchased services will be tracked by comparing annualized spend under new contracts to annualized spend under replaced contracts.

A summary of targeted annual supply chain savings targets is presented below. In future reports, BILH will also savings achieved during each fiscal year and total savings achieved in relation to target.

($Ms)	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Projected Savings	1.5 – 1.9	8.1 – 9.9	17.9 – 21.9	21.6 – 26.4	25.2 – 30.8

[2] Multiple studies within the healthcare industry support the notion that large-scale group purchasing organizations reduce provider healthcare expenses relative to direct purchasing. See Burns and Yovovich, "Hospital Supply Chain Executives' Perspectives on Group Purchasing: Results from a 2014 National Survey," Report Prepared Under an AHA/AHRMM Research Grant to the University of Pennsylvania, September 2014.

Revenue Cycle

A second area of financial improvement from operations will be due to Revenue Cycle improvements, with a 5-year estimated value of $9.2M-$15.6M in annual run-rate net operating impact. BILH will achieve these improvements by reducing bad debt (unpaid portions of bills), reducing denial write-offs (charges that payers deny), and improving overall revenue integrity. These improvements will be the result of centralizing leadership, standardizing processes and policies, and implementing best practices across the member organizations of BILH. Specific examples of initiatives include improving how BILH enables financial counseling and enhancing the processes used for pre-authorization of services.

Revenue Cycle net operating impact will be tracked through key performance indicators relative to combined pre-merger performance of BILH entities: improvements in bad debt expense on financial statements, dollar volume of final denial write-offs, and revenue integrity.

($Ms)	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Projected Savings	0.3 – 0.6	2.8 – 5.2	7.2 – 12.3	8.6 – 14.5	9.2 – 15.6

Other Operations

Other operational areas and domains, including Human Resources, IT, Finance Operations, Real Estate and Facilities, among others, have significant targeted opportunities for savings. These savings will be attributed to integration initiatives including vendor consolidation, contract management, and staffing efficiencies. BILH will realize savings for these operational functions through economies of scale, while also adopting operating models to optimize resources and human capital.

Human Resources

Human Resources will drive savings and improved employee experience through more efficient benefits administration and by consolidating and renegotiating contracts with service and technology vendors. Benefits administration will become more efficient by consolidating and harmonizing the numerous health and welfare benefits plans in place today across BILH.

Today, some BILH entities are self-insured, operating their own plans for medical benefits, while others are fully insured with plans operated by third-party insurers. Self-insured plans are generally more cost effective, cutting out profit margin that would have otherwise gone to a third party. BILH will convert member organizations to a single self-insured structure, generating significant savings. BILH will generate savings through its enhanced purchasing power when negotiating administrative fees with insurance carriers. Our size and harmonized plan design approach will allow carriers to reduce fees while improving services, including enhanced access to care for our employees.

BILH will also seek to harmonize plan designs and vendor relationships for other types of health and welfare benefits (e.g., dental, vision, life, retirement) and for operational software and services such as staffing agencies, applicant tracking systems for hiring, and background checks. All of these initiatives are expected to improve efficiency, drive financial savings and improve the employee experience and services available.

Finance Operations

Finance Operations will achieve cost savings by consolidating to a system-wide vendor for purchased services including internal audit, external audit, employee benefit plan audit, and insurance brokerage.

By purchasing these services centrally, BILH will receive more efficient service with better pricing. BILH has already selected a single enterprise auditor for external audit, one for internal audit, and one for employee benefit plan audit.

Real Estate & Facilities
BILH will achieve savings on real estate and facilities by optimizing and renegotiating contracts for purchased services related to facilities and by utilizing in-house construction teams whenever possible instead of purchasing construction services externally. These savings will be offset by investing in an enterprise-wide condition assessment of facilities and a subsequent master facilities plan, necessary investments to optimize the long-term real estate footprint of BILH.

IT
To enhance operations and optimize patient care and experience, BILH will seek to consolidate key IT systems. This will include the implementation of a single, system-wide enterprise resource planning ("ERP") platform and the consolidation of electronic health record ("EHR") systems. Both efforts will require capital and operating investments over the course of the next three to five years.

In parallel to investments to consolidate clinical and financial systems, BILH will consolidate other IT infrastructure – including existing technology inventory, data centers, and physical footprint – and appropriately align IT resources to address BILH's technical needs. On an annual basis, IT will quantify savings based on newly implemented vendor agreements (e.g., better negotiated prices in comparison to existing spend for IT operations). The organization will also track savings based on reduction of outsourced professional services (e.g., technical and help desk support) and efficiencies gained through technical standards. Currently, multiple HR, finance, and clinical applications provide the same or a superfluous function that can be provided by fewer applications. Vendor contracts for these functions will be routinely reviewed, with dedicated efforts to eliminate such redundancies without disruption to clinicians, end-users, and patients.

($Ms)	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Projected Savings	0.8 – 1.0	4.2 – 5.5	10.8 – 14.0	12.8 – 16.6	13.0 – 16.9

B. Patient Care Efficiencies

Cost savings due to patient care efficiencies include those associated with Pharmacy, Laboratory, Clinical Engineering, and the Clinically Integrated Network. Combined cost savings resulting from improved efficiencies are estimated to be between $12.4 million to $23.1 million by year five of operations across these areas. The main sources of savings can be attributed to the re-negotiation of vendor contracts, implementation of operational improvement processes, staffing efficiency, and alignment on capital purchasing. Some of these cost savings are offset by modest investments in labor and IT infrastructure.

Pharmacy
BILH Pharmacy Services will utilize the system's collective knowledge, skills and state of the art Pharmacy technology to provide integrated, high quality care to all patients and use evidence-based practice to support all providers in the safe and effective use of pharmaceuticals across the continuum of care. Pharmacy leaders have proposed cost savings through operational improvement initiatives across several areas. This includes the expansion, standardization, and consolidation of existing specialty and retail pharmacy services, the creation of a system wide approach to drug use policy and formulary management, improved employee utilization of in-house prescription services, and the establishment of

various system wide risk reduction and operational improvement processes. The last of these initiatives will be measured based on savings attributed to specific initiatives. Similarly, savings on drug spend will be measured by comparing baseline purchased volume and pricing to current purchased volume and pricing.

($Ms)	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Projected Savings	0.7 – 1.7	2.9 – 6.2	4.0 – 8.5	4.0 – 8.5	4.0 – 8.5

Laboratory

Similar to improvements and proposed savings in the Supply Chain function, considerable savings to Laboratory expenses are proposed through the consolidation, re-negotiation, and optimization of vendor contracts resulting from the improved buying power attributed to the combined size and scale of the system. The Laboratory function expects much of their cost savings to be achieved through consolidating to one major reference lab vendor and re-negotiating all current contracts (including specialty labs and blood sourcing). Cost savings will be quantified by comparing baseline rates against new rates based on current volumes (as applicable). BILH Laboratory leaders expect additional savings to the system resulting from in-sourcing lab tests. Savings will be measured by comparing the cost of performing a test in-house to the cost of sending to an outside lab.

Additionally, the Laboratory department has begun the process of inventorying all equipment-related data and is identifying how best to standardize and consolidate across the system as equipment expires or contracts come up for renewal. Savings will be measured by year-over-year reduction in spend on equipment compared to budgeted baseline equipment spend.

Less tangible costs savings are also expected through a new emphasis on education and training, which will result in more efficient recruiting and better retention of front-line staff and technicians.

($Ms)	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Projected Savings	0.0 – 0.0	0.7 – 1.1	3.6-5.7	4.8 – 7.7	4.8 – 7.7

Clinical Engineering

Clinical Engineering plays a pivotal role in care delivery. A clinical engineer is defined by the American College of Clinical Engineering as "a professional who supports and advances patient care by applying engineering and managerial skills to healthcare technology." BILH intends to develop a system-wide structure and processes for Clinical Engineering's core functions, including equipment procurement, installation, maintenance, technical infrastructure, inventory and life cycle management, and service request management. This will allow Clinical Engineering to function collaboratively across all entities in order to drive efficiency and standardization.

Cost savings related to Clinical Engineering will be achieved through the following two initiatives: creation of a service contract management workgroup and collaboration on capital equipment planning. The Workgroup will be commissioned to perform comprehensive clinical equipment service contract review, optimization, and consolidation across the system. Currently, BILH spends approximately $33M on 400+ capital equipment service contracts across all clinical departments. Savings ranging from 5-10%

of total spend are estimated to be achieved over five years through active review and consolidation of these contracts. Savings related to capital equipment will be achieved through the active system participation in the planning for, acquisition of and repurposing of clinical capital equipment across BILH with clinical department and supply chain leaders.

The methodology for calculating the clinical engineering cost savings will be done through the comparison of baseline budgets to actual budgets for both service contracts and equipment, the delta between the two being the estimated savings.

($Ms)	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Projected Savings	0.1 – 0.3	0.5 – 1.4	1.2-2.9	1.4 – 3.1	1.4 – 3.1

Clinically Integrated Network

Beth Israel Lahey Performance Network ("BILPN") is a clinically integrated network of physicians, clinicians and hospitals committed to providing high-quality, cost-effective care to the patients and communities they serve, while effectively managing medical expense. Leveraging best practices in population health management and data analytics, BILPN will improve care quality and patient health outcomes across the system through population health initiatives. BILPN consists of Beth Israel Deaconess Care Organization, Lahey Clinical Performance Network, and Mount Auburn Cambridge Independent Practice Association.

Based on an initial estimate, cost savings attributed to BILPN are mainly derived from the consolidation of the existing organizations and are expected to be between $2.2 million and $3.8 million. In FY 2019, these savings are offset partly or wholly by incremental administrative costs associated with the new BILPN structure. Additional savings are expected through enhanced population health management once a central platform is introduced and targeted programs are implemented. The methodology for tracking these savings will compare pre and post-merger total budgets of the CIN (enumerated by labor, contract, and other service spend categories) on a per member per month basis at specific points in time.

($Ms)	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Projected Savings	(0.1) – 0.8	0.8 – 2.6	2.2-3.8	2.2 – 3.8	2.2 – 3.8

C. Shifting Care to Higher Value Settings

BILH is a high value health system that will deliver the "right care, at the right time, in the right location" through a comprehensive delivery system spanning outstanding community care close to home as well as differentiated tertiary and quaternary care within its four academic and teaching hospitals. As a result, BILH has the potential to create significant savings for the Commonwealth on two fronts. First, by strengthening its clinical capabilities and reputation in the community hospital and ambulatory setting, BILH will further enhance the care it is able to deliver in local communities at lower cost settings. Second, through targeted efforts to re-capture and retain appropriate tertiary and quaternary care within the health system's primary care and specialty care referral network, BILH will reduce outmigration of services to higher-priced providers.

Enhancing the caliber of care in our local communities is central to the BILH vision and strategic agenda.

We will measure our success in enhancing clinical capabilities in the community hospital setting by tracking community hospital case mix index ("CMI")[3] and inpatient volume trend at each institution relative to the Eastern Massachusetts market. Increasing CMI and volume at community hospitals will demonstrate BILH's continued commitment to delivering the best care possible in lower-cost community settings. We will further measure our success in enhancing community-based care through the system's ongoing commitments to community health center affiliates and safety net affiliates, as outlined in Paragraphs 98 to 112 of the AOD and as detailed in annual Monitor reports.

The broader objective of retaining care within our system is also an important value driver for BILH. Collectively, our system offers high-quality care across a broad geographic scope that will attract and retain a greater proportion of services needed by patients within our primary care and specialty care referral network. Our lower cost position will enable BILH to generate cost savings for the Commonwealth commensurate with the incremental care we are able to retain within our system that currently out-migrates to higher-cost providers. We will measure our success with keeping care in-system by tracking the percentage of inpatient admissions provided by BILH versus higher-priced providers[4] to our patients under risk contract arrangements, with the goal of increasing BILH's percentage over time.[5]

While BILH has not developed specific numeric savings targets in these areas, the Massachusetts Health Policy Commission has separately projected that savings from re-direction of care from higher-priced providers may result in an estimated $9 million to $14 million in annual savings to the Commonwealth.

[3] CMI is a measure of the complexity and resource intensity of inpatient care that a hospital provides, calculated using the sum of Medicare Severity Diagnosis Related Group (MS-DRG) weights divided by inpatient volume.
[4] Higher-priced providers will be defined based on Relative Price Index relative to BILH within the categories of academic, teaching and community hospitals for Eastern Massachusetts.
[5] Given the time lag in claims data reporting, BILH anticipates that the FY 2020 annual report (issued in January 2021) will be the first report at which the health system will be able to measure progress on outmigration to higher-priced providers during the post-merger period.