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Atrium Health, North Carolina; CP; Joint Criteria; System

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Credit Profile

US\$158.52 mil rfdg rev bnds ser 2018A due 01/15/2039					
AA-/Stable	New				
US\$100.0 mil vrdo self liquidity ser 2018F due 01/15/2048					
AA-/A-1+/Stable	New				
AA-/Stable	New				
US\$50.0 mil fltg rate nts ser 2018D due 01/15/2048					
AA-/Stable	New				
US\$50.0 mil put bnd mode ser 2018C due 01/15/2048					
AA-/Stable	New				
US\$50.0 mil put bnd mode ser 2018B due 01/15/2048					
AA-/Stable	New				
Series 2009A, 2011A, 2012A, 2013A, 2016A					
AA-/Stable	Affirmed				
	AA-/A-1+/Stable AA-/Stable AA-/Stable AA-/Stable				

Rationale

S&P Global Ratings assigned its 'AA-' long-term rating to Charlotte-Mecklenburg Hospital Authority, N.C.'s series 2018A-E bonds. The authority does business as Atrium Health (formerly known as Carolinas HealthCare System). We also assigned our 'AA-/A-1+' rating to the authority's series 2018F variable rate demand bonds (VRDBs) supported by the authority's own self-liquidity.

Concurrently, we affirmed our 'AA-' underlying ratings (SPURs) on the authority's various existing bonds, as well as affirmed our 'A-1+' short-term rating on its taxable health care commercial paper (CP) program, our 'AA-/A-1' long-term rating on its 2007B and 2007C bonds, and our 'AAA/A-1+' rating on its 2007E bonds. The outlook, where applicable, is stable.

We expect the authority to also issue the series 2018G and 2018H VRDBs shortly following the above issuance. The bonds are expected to be secured by standby bond purchase agreements (SBPAs) from JPMorgan Chase Bank N.A. We are not assigning a rating to these bonds at this time; however their issuance has been considered in our analysis.

The \$158 million 2018A fixed-rate bonds will be used to refund all outstanding callable 2009A bonds to achieve interest rate savings. Following completion of the transaction, we will withdraw our rating on the refunded bonds. The remaining 2018 series (including series G and series H) are expected to total \$400 million in new debt, \$300 million of which is projected to reimburse the authority for prior spending with the remainder going towards future capital spending. The new debt will shift the authority away from an all fixed-rate (or synthetically fixed) debt structure and is

expected to result in about 20% of pro forma debt being variable rate. The series 2018B-H debt is expected to be organized as follows: series 2018B and 2018C put bonds (\$50 million par amount each); series 2018D and 2018E floating rate notes (\$50 million each); series 2018F VRDBs supported by self-liquidity (\$100 million); and series 2018G and 2018H VRDBs supported by SBPAs (\$50 million each). Depending on market rates at the time of issuance, the series 2018D and 2018E bonds might be structured differently. This analysis incorporates that possibility.

Supporting the series 2007B and 2007C bonds, which we rate 'AA-/A-1', are SBPAs from JPMorgan Chase Bank N.A. The long-term rating component reflects the 'AA-' long-term rating on the authority, and the short-term rating component reflects the 'A-1' short-term rating on JPMorgan Chase Bank. The SBPAs supporting the series 2007B and 2007C bonds expire in 2021.

A letter of credit (LOC) from TD Bank supports the 2007E bonds, which we rate 'AAA/A-1+'. We based the long-term rating component on the application of joint criteria between TD Bank and the 'AA-' SPUR on the authority. The short-term rating component reflects the 'A-1+' short-term rating on TD Bank. The LOC expires in 2020. The series 2007E bonds are also supported by insurance from Assured Guaranty Municipal Corp.

The authority uses self-liquidity to support its CP program, with our 'A-1+' short-term rating reflecting our opinion of its general credit strengths supporting this program. The program is authorized for up to \$200 million in CP outstanding, but that is expected to increase to \$400 million in November 2018. The authority also maintains several forms of direct purchase bank debt across multiple banks. We do not rate these transactions, but we do assess potential debt acceleration risk associated with various defaults and remedies inherent to these documents.

In February 2018, the Charlotte-Mecklenburg Hospital authority changed its enterprise name from Carolinas HealthCare System to Atrium Health as part of its long-term vision to expand the level of care it provides beyond North Carolina and South Carolina. This shift is exemplified by the pending merger with the Macon, Ga.-based Navicent Health. The potential merger with Navicent Health has been fully incorporated into this review but is not reflected in figures cited within this report unless otherwise specified.

The underlying rating on Atrium Health reflects its continued healthy operating profile, highlighted by sustained volume growth and service line demand; favorable economic fundamentals within its core Charlotte service area, coupled with considerable geographic reach across the Carolinas; and a strong inpatient market share across most specialties. The aforementioned strengths underpin Atrium Health's robust financial performance that remains good for the rating and well ahead of budget through the first half of fiscal 2018. Atrium Health's solid balance sheet has strengthened further over the past several years as a result of robust cash flow and capital spending purposefully held below historical levels. Though we expect incremental weakening in leverage metrics following the added \$400 million in debt, we believe the pro forma balance sheet remains healthy and in line with our expectations for the rating.

Since last review, management has developed its long-range financial plan for Atrium Health's next five-plus years. The plan is characterized by significant increases in capital spending within the Charlotte market aimed at creating capacity and adding access points for the region's growing population. We consider the projected spending levels to be manageable at the rating given Atrium Health's healthy operations and the fact that spending is spread out over multiple years and construction phases. However, we also believe Atrium Health will continue its organizational growth through mergers, acquisitions, and various types of affiliations (such as Navicent Health), and we expect these plans to continue to develop throughout, and beyond, the two-year outlook horizon. Though such growth plans add some uncertainty to our review, we continue to believe that Atrium Health leadership will act with discipline as it executes on this strategy.

The rating is based on our view of Atrium Health's credit strengths:

- Robust days' cash on hand that now exceeds 300 days' and is expected to stay above that threshold throughout the outlook period, coupled with pro forma debt metrics that we expect to remain favorable to median levels;
- Continued healthy operating profile with a 3.8% operating margin in fiscal 2017 supporting 5.8x pro forma maximum annual debt service (MADS) coverage, with both metrics improving through the first six months of fiscal 2018;
- Maintenance of a leading business position within the growing and demographically-favorable Charlotte metropolitan area, as well as a continued presence throughout the Carolinas through various affiliations and management agreements; and
- Depth of knowledge within the management team, with top executive positions now stable following some anticipated transitions over the past few years.

The above strengths are partly offset, in our view, by the following credit weaknesses:

- Expected increases in capital spending over the next several years, which we think could pressure reserve growth, though the near term impact will likely be muted given the added series 2018 bond funds and our expectation for continued operating stability; moreover, we do not believe days' cash on hand and pro forma cash to debt need to grow substantially to maintain the current rating;
- Significant reliance on supplemental funds from state and federal funding sources, totaling \$241 million in operating revenue in fiscal 2017, with some added uncertainty associated with the allocation and level of these funds due to North Carolina's move toward Medicaid managed care; and
- Integration risk should the merger with Navicent Health be closed as expected and longer-term uncertainty surrounding future potential affiliations and the corresponding financial impact on Atrium Health's operating profile.

Outlook

The stable outlook reflects our assessment of Atrium Health's robust and stable enterprise strengths, as well as our expectation that its overall financial profile will remain commensurate with the 'AA-' rating level. We expect Atrium Health will continue to post healthy financial performance metrics and maintain its balance sheet cushion throughout the outlook period. We also anticipate leadership will continue to respond to national and state-level challenges appropriately to preserve Atrium Health's financial strength.

Upside scenario

As Atrium Health's growth plans develop, we believe a positive outlook or higher rating could be considered if it is able to successfully integrate Navicent Health and execute on its capital plans while growing balance sheet metrics to a level in line with 'AA' rated systems. We would also expect Atrium Health to maintain its existing enterprise strengths, while producing financial performance metrics in line with 2017 and interim 2018 levels.

Downside scenario

Though we consider Atrium Health to have some cushion at the rating, we could revise the outlook to negative if there is a sharp and sustained decline in financial performance. We believe Atrium Health's balance sheet partly mitigates its material exposure to supplemental funds and, as a result, any sizable dilution of its balance sheet cushion could result in negative pressure on the rating.

Enterprise Profile – Very Strong

Expansive organizational footprint

Atrium Health is the larger of two major health systems serving the Charlotte region and offers area residents convenient access to all primary and secondary services, in addition to a broad tertiary and quaternary service mix, including its recognized strength in key specialties such as pediatrics, cardiology, orthopedics, and oncology. Atrium Health has a strong market share in these key service lines, which we view as an institutional strength. Currently, Atrium Health's primary enterprise consists of 11 acute-care hospitals (including more than 3,300 staffed beds), three rehabilitation facilities, and a children's hospital located on the campus of the flagship Carolinas Medical Center (CMC). It also maintains a large employed physician network of nearly 1,600 primary and specialty physicians, part of a larger active medical staff of about 3,000 providers. Atrium Health's physician network remains a core business strength, in our opinion, generating roughly 6 million visits in 2017. The 907-bed Carolinas Medical Center is one of five academic medical center teaching hospitals designated by North Carolina, with 340 medical residents or fellows in 40 programs. This staffing supports an elevated Medicare case mix index of 2.45 at the flagship CMC, a measure which has risen in recent years.

Atrium Health's strategy has been to broaden its geographic outreach through a network of non-obligated entities, including nearly 20 acute-care hospitals throughout the Carolinas. These entities are not consolidated into Atrium Health's audit, though it has its direct management expenses reimbursed and also receives management fees from all managed entities. We expect Atrium Health to continue this management strategy and build on its relationship with these managed affiliates.

Pending Navicent Health merger factored into rating

In February 2018 (nearly simultaneously with its name change), Atrium Health announced a letter of intent to merge with Navicent Health in Macon, Georgia, about 80 miles south of Atlanta. Navicent Health--which generated about \$700 million in total revenue in its fiscal 2017--includes three acute care hospitals, as well as two managed hospitals. Relatedly, Navicent Health is also the leader of an eight-system collaborative of independent Georgia providers. The merger has been submitted for regulatory approval and is expected to close by the end of calendar 2018. We believe Navicent Health's balance sheet is healthy and mildly accretive to Atrium Health's existing liquidity and debt metrics, with about \$800 million in unrestricted reserves as of September 2017. However, we believe the merger would be slightly dilutive to Atrium Health's operations given integration costs and Navicent Health's performance the last two fiscal years, which were exacerbated by a substantial write off related to an information technology (IT) system transition. While we believe the merger is fully incorporated into this rating, we will continue to monitor any

integration efforts in subsequent reviews.

We believe the potential (and likely) merger with Navicent Health exemplifies Atrium Health's growth plans and its desire to provide more care outside its core Charlotte market. Though we believe growth in its geographic footprint and revenue diversity continue to favorably impact Atrium Health's overall market position by decreasing reliance on the Charlotte market, we will always consider the corresponding impact on consolidated financial metrics when assessing a new affiliate.

Leading position in growing market but competition remains

Atrium Health has a stable and leading 52% of the inpatient market share in its 13-county core market surrounding Mecklenburg County, where competition comes largely from Winston-Salem based Novant Health and its affiliates. Atrium Health's enterprise-wide inpatient market share--which includes all facilities owned or managed and covers a 34-county region--remained stable at 37% and follows a similar trend to the core market share. Competition within the broader region remains characterized by Novant Health, as well as by individual community hospitals that have strong positions in their home counties. Atrium Health's market share has grown since the mid-1990s, though recently stalled at current levels. Management considers this to be a result of capacity constraints within its acute care facilities throughout the region; for example, CMC had an elevated occupancy of 82.2% in 2017. We believe there could be some upside pressure on market share following completion of the anticipated expansion projects across several campuses within the core market, though Novant is also engaged in several capital projects around the Charlotte region.

Patient volumes have been increasing across Atrium Health facilities in recent years, driven by the continued expansion of the physician network, added access points, and the region's population growth. We project the Charlotte metropolitan area population to grow by nearly 8% over the next five years, ahead of both state and national levels. Emergency department (ED) visits were down in 2017, however this occurred concurrently with increased urgent care and virtual visits, part of larger population health initiatives and the desire to provide care in the most appropriate setting. Lastly, though inpatient admissions are stable, we believe further growth is pressured by the capacity issues at select campuses.

The state of North Carolina is in the process of shifting from traditional Medicaid to managed care. The plan is still developing and pending CMS approval, though we expect the transition to occur within our two-year outlook horizon. In anticipation of this, Atrium Health has partnered with other well-known systems in the state--such as UNC Health Care, Duke University Health System, and Novant Health--to create a provider-sponsored health plan to operate within the new Medicaid program--though contracts have not yet been awarded by the state. Presbyterian Healthcare Services of New Mexico brings its extensive health insurance experience to the plan and is a minority owner. We believe the financial implications of this transition are still evolving, but generally believe leadership has positioned Atrium Health as well as possible for the changes. Currently, a stable 12% of net patient revenue comes from Medicaid.

Executive team has stabilized

Atrium Health's current CEO has been with the organization since early 2016, following the retirement of his predecessor, with a seamless transition in leadership. Since that time, Atrium Health has appointed a new chief

operating officer (January 2017) and a new chief financial officer (October 2017). We think that the current management team has a depth of knowledge and leadership experience, and remains focused on system growth and expansion, preparation for continued healthcare reform, and operating and clinical efficiency. The leadership team is currently recruiting candidates for positions on the management team such as a chief IT officer, chief strategy officer, and the newly created chief marketing officer role. We view the preceding roles favorably and believe it highlights leadership's priorities for the future.

Since June 2016, Atrium Health has been the subject of a civil antitrust lawsuit filed by the federal government and the State of North Carolina, for alleged violation of the Sherman Act. Since that time, two separate class action lawsuits have been proposed on the same charges, most recently in February 2018. The duration and final outcome of the lawsuits remain unknown, and as such is not factored into the current rating. We will continue to monitor the lawsuit for its potential effect on Atrium Health's credit profile.

Table 1

Charlotte-Mecklenburg Hospital Authority d/b/a Atrium Health, North Carolina Enterprise Statistics

	Six months ended June 30	Fiscal year ended Dec. 31		
	2018	2017	2016	2015
Inpatient admissions	66,652	130,733	128,459	128,311
Equivalent inpatient admissions	158,365	312,651	315,055	305,867
Urgent care visits	198,597	372,653	347,277	311,667
Emergency visits	378,031	756,407	766,394	762,340
Inpatient surgeries	17,680	36,012	35,925	35,803
Outpatient surgeries	31,220	62,506	60,980	59,587
Medicare case mix index	2.4500	2.3900	2.2400	2.2500
FTE employees	32,741	33,466	32,569	30,733
Active physicians	2,998	2,796	2,692	2,763
Based on net/gross revenues	Net	Net	Net	Net
Medicare (%)	28.3	29.4	26.8	27.0
Medicaid (%)	11.6	11.5	11.3	13.4
Commercial/Blues (%)	57.1	55.4	59.7	58.4

N/A--Not applicable. N.A.--Not available. Inpatient admissions exclude normal newborn, psychiatric, rehabilitation, and long-term care facility admissions.

Financial Profile – Very Strong

Healthy operating profile

Atrium Health has consistently reported sound financial performance metrics, with healthy operating margins, EBIDA margins, and maximum annual debt service coverage. We expect performance to remain solid and in line with our expectations for the rating. MADS coverage applies a pro forma MADS figure of \$126 million, which assumes 3.5% interest on the unhedged series 2018 variable rate debt per S&P Global Ratings practice. Through the first half of fiscal 2018, Atrium Health is well ahead of budget and the prior year. The 2018 operating budget targeted an operating margin of 2.3%, which we consider fairly conservative; we expect Atrium Health to surpass its budgeted targets in

fiscal 2018. Several operating initiatives are underway to offset the ongoing revenue and expense pressure within the sector, including: investment in key service lines, operating and clinical efficiencies, and consolidating purchased services.

As mentioned, Atrium Health does rely on a significant amount of supplemental funding, including \$53 million in Medicare and Medicaid disproportionate share funds and \$188 million from the North Carolina Medicaid Supplemental Payment Program in fiscal 2017. We view such exposure negatively, as it adds greater risk and uncertainty to net revenue. Moreover, as North Carolina shifts to Medicaid managed care, the program's funds will be dispersed to providers differently than the status quo, though at this time we understand that the state has established rate floors for the program's first few years equal to current Medicaid reimbursement. The ultimate and long-term impact of this is unknown at the current time, but in general we believe the change is but one of the many industry challenges Atrium Health's leadership will continue to address over the coming years.

Balance sheet provides cushion for growth plans

Atrium Health's core strength continues to be its balance sheet. Favorable investment returns, sound operations, and relatively muted capital spending have added over \$1 billion to unrestricted reserves since 2015. We expect unrestricted reserves to long-term debt to fall to about 230% following the series 2018 issuance, which remains good for the rating. Since up to \$300 million of the 2018 bond funds have been designated as reimbursement for prior capital spending, we also expect an instant bump to reserves. Pro forma leverage is expected to be near 28%, which we view has appropriate for the rating.

We expect capital spending to increase in coming years, as Atrium Health begins to execute on capital projects aimed at creating capacity and modernizing facilities within the Charlotte market. Based on information from management, we expect 2019 spending to grow beyond recent levels as construction begins on various projects at its CMC and Pineville campuses, while continuing investment at other facilities such as the ongoing modernization of its 455-bed Carolinas HealthCare System-NorthEast campus. We expect spending to remain elevated over the next five-plus years, but in general believe Atrium Health can support this spending at the current rating. There are no plans for additional debt at this time, though we think it is plausible that the longer-term projects may utilize some debt.

Atrium Health has identified approximately \$930 million of cash and fixed income assets as of August 31, 2018, to guarantee the full and timely purchase price of its CP program and the \$100 million self-liquidity supported series 2018F VRDBs. As previously mentioned, we expected the CP program size to increase to \$400 million from the current \$200 million cap. This change has been considered as part of this analysis and we note no more than \$50 million in CP can mature during one business week. The assets--invested in highly rated money market funds, treasuries, agencies, and investment-grade debt--provide sufficient coverage in the event of a failed remarketing. Management has established clear and detailed procedures to ensure the ongoing maintenance of sufficient asset coverage and to meet liquidity demands on a timely basis. We will continue to monitor the liquidity and sufficiency of assets pledged by Atrium Health on a monthly basis.

Contingent liabilities remain manageable with 2018 debt

As of June 2018, Atrium Health maintains approximately \$700 million in contingent debt, approximately 40% of its debt profile, including its variable-rate demand bonds and several direct purchase bank agreements spread across PNC

Bank, Bank of America, and Wells Fargo. Under the terms of the direct purchase agreements, each bank will hold the bonds for terms ranging from six to 10 years, at which time, unless extended, Atrium Health may remarket the bonds, or if they cannot be remarketed, repurchase some or all of the bonds. Covenants for the direct purchase agreements vary but include the obligated group's maintenance of a minimum 1.1x debt service coverage, at least 75 days' cash on hand, and less than 65% leverage. Not all agreements contain each covenant. In addition, in some agreements a long-term credit rating of less than 'BBB' is considered an event of default. In our view, Atrium Health's 6x unrestricted reserves (92% of reserves liquid in 30 days or less) compared with contingent liability debt as of year-end 2017 mitigates the acceleration risk.

The series 2018F-H VRDBs are expected to add about \$200 million in contingent liabilities, keeping Atrium Health's pro forma debt structure near 40% contingent debt. The series 2018 B-E bonds are expected to have tenders in fiscal 2022 (\$50 million), 2023 (\$100 million), and 2024 (\$50 million). Given Atrium Health's robust liquidity and capital market access, we also consider these events to be manageable.

Atrium Health also maintains 14 floating to fixed-rate swaps with Wells Fargo, Citigroup, and Bank of America for an outstanding notional amount of \$700 million. Despite a significant mark-to-market of negative \$220 million as of Dec. 31, 2017, Atrium Health has not had to post any collateral related to its swap portfolio, in part because the collateral posting requirement for insured swaps is based on a simultaneous downgrade of both the insurer (Assured Guaranty Municipal Corp.) to 'BBB+' and Atrium Health to 'A'.

	Six months ended June 30	Fiscal year ended Dec. 31		31	Medians for 'AA-' rated health care systems
	2018	2017	2016	2015	2017
Financial performance					
Net patient revenue (\$000s)	2,803,006	5,402,741	5,136,830	4,948,438	2,403,147
Total operating revenue (\$000s)	3,102,738	5,960,079	5,649,450	5,453,619	MNR
Total operating expenses (\$000s)	2,961,198	5,732,877	5,447,084	5,154,024	MNR
Operating income (\$000s)	141,540	227,202	202,366	299,595	MNR
Operating margin (%)	4.56	3.81	3.58	5.49	2.60
Net nonoperating income (\$000s)	85,888	113,558	22,073	131,508	MNR
Excess income (\$000s)	227,428	340,760	224,439	431,103	MNR
Excess margin (%)	7.13	5.61	3.96	7.72	4.50
Operating EBIDA margin (%)	11.12	10.34	10.48	12.11	8.70
EBIDA margin (%)	13.51	12.01	10.83	14.18	10.80
Net available for debt service (\$000s)	430,851	729,637	614,226	792,075	337,797
Maximum annual debt service (\$000s)	125,997	125,997	125,997	125,997	MNR
Maximum annual debt service coverage (x)	6.84	5.79	4.87	6.29	4.80
Operating lease-adjusted coverage (x)	4.77	4.14	3.58	4.59	3.50
Liquidity and financial flexibility					
Unrestricted reserves (\$000s)	4,686,593	4,638,894	3,915,127	3,513,113	1,813,269

Table 2

Table 2

Charlotte-Mecklenburg Hospital Authority d/b/a Atrium Health, North Carolina Financial Statistics (cont.)

	Six months ended June 30 2018	Six months			Medians for 'AA-' rated health care systems
		2017	2016	2015	2017
Unrestricted days' cash on hand	305.9	312.3	277.6	262.8	243.20
Unrestricted reserves/total long-term debt (%)	265.7	257.8	213.0	189.4	187.70
Unrestricted reserves/contingent liabilities (%)	669.0	656.2	549.0	492.0	509.10
Average age of plant (years)	8.9	8.9	8.4	8.2	9.70
Capital expenditures/depreciation and amortization (%)	110.7	96.8	100.4	91.0	131.40
Debt and liabilities					
Total long-term debt (\$000s)	1,763,551	1,799,149	1,838,134	1,855,245	MNR
Long-term debt/capitalization (%)	23.7	24.6	28.2	30.7	29.20
Contingent liabilities (\$000s)	700,585	706,985	713,105	714,005	MNR
Contingent liabilities/total long-term debt (%)	39.7	39.3	38.8	38.5	39.60
Debt burden (%)	1.98	2.07	2.22	2.26	2.20
Defined-benefit plan funded status (%)	N.A.	72.36	62.91	67.20	81.30
Pro forma ratios					
Unrestricted reserves (\$000s)	4,986,593	N/A	N/A	N/A	MNR
Total long-term debt (\$000s)	2,163,551	N/A	N/A	N/A	MNR
Unrestricted days' cash on hand	325.5	N/A	N/A	N/A	MNR
Unrestricted reserves/total long-term debt (%)	230.5	N/A	N/A	N/A	MNR
Long-term debt/capitalization (%)	27.6	N/A	N/A	N/A	MNR
Total net special funding (\$000s)	135,787	241,352	227,582	237,889	MNR

N/A--Not applicable. N.A.--Not available. MNR--Median not reported.

Credit Snapshot

- Security pledge: A gross revenue pledge of the obligated group secures all bonds, including the commercial paper program.
- Group rating methodology: The obligated group is core to the group credit profile.
- The obligated group encompasses the entire Atrium Health organization including the primary enterprise and one component unit, the Atrium Health Foundation. There are no designated affiliates of the obligated group at this time.

Ratings Detail (As Of October 1, 2018)

Atrium Health Commercial Paper

Ratings Detail (As Of October 1, 2018) (cont.)		
Short Term Rating	A-1+	Affirmed
Series 2007B		
Long Term Rating	AA-/A-1/Stable	Affirmed
Series 2007C		
Long Term Rating	AA-/A-1/Stable	Affirmed
Series 2007E		
Unenhanced Rating	AA-(SPUR)/Stable	Affirmed
Long Term Rating	AAA/A-1+	Affirmed
Many issues are enhanced by bond insurance.		

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