MARYLAND ALL-PAYER MODEL AGREEMENT

This Maryland All-Payer Model Agreement ("Agreement") is dated 2/11, 2014, and is between the Centers for Medicare & Medicaid Services ("CMS") and the Governor of Maryland, the Department of Health and Mental Hygiene, and the Health Services Cost Review Commission ("HSCRC") (collectively, "State" or "Maryland").

Under Section 1115A of the Social Security Act (the "Act"), the Center for Medicare and Medicaid Innovation ("Innovation Center") is authorized to test innovative payment and service delivery models that have the potential to reduce Medicare, Medicaid, or Children's Health Insurance Program ("CHIP") expenditures while maintaining or improving the quality of care for beneficiaries. Section 1115A(b)(2)(B)(xi) of the Act lists models that the Innovation Center may consider testing, including, "[a]llowing States to test and evaluate systems of all-payer payment reform for the medical care of residents of the State, including dual eligible individuals."

In accordance with Section 1814(b)(3) of the Act, CMS heretofore has exempted certain hospitals in Maryland from reimbursement under the national payment system and has allowed the State to set reimbursement rates payable by Medicare for applicable services that otherwise would be reimbursed under Medicare's Inpatient Prospective Payment System ("IPPS") and Outpatient Prospective Payment System ("OPPS") (collectively, the "1814(b)(3) Medicare Waiver"). Continuation of the 1814(b)(3) Medicare Waiver was subject to the condition that the aggregate rate of increase in the cost per Medicare hospital inpatient admission in Maryland from January 1, 1981 to the most recent date for which annual data are available is equal to or less than the rate of increase in the cost per Medicare inpatient admission nationally over the same time period.

The State hereby elects to no longer be reimbursed in accordance with Section 1814(b)(3) of the Act. The parties also agree that effective with the first day of the Model, Maryland is no longer in continuous operation of a demonstration project reimbursement system since July 1, 1977, as required under Section 1814(b)(3) of the Act. Therefore, Maryland no longer meets the requirements for reimbursement under Section 1814(b)(3) of the Act and all payment waivers under the 1814(b)(3) Medicare Waiver are hereby terminated.

Maryland hospitals will be reimbursed under the terms of the Maryland All-Payer Model, as described in this Agreement, including all appendices ("Model").

CMS and the State therefore agree as follows:

1. **Legal authority.**

    a. **Medicare authority.** Section 1115A(b) of the Act authorizes CMS, through the Innovation Center, to enter into this Agreement. Medicare reimbursement under

this Model shall continue to operate consistent with all applicable laws, regulations and guidance, as amended or modified, except to the extent these requirements are waived in accordance with Section 1115A(d)(1) of the Act as set forth in this Agreement. As a term and condition of this Model, the State will require that all hospitals in the State of Maryland for which payments are regulated by the State for all payers including Medicare, as listed in Appendix 1 and as updated from time to time (hereafter "Regulated Maryland Hospitals"), will comply in all material respects with Medicare requirements in Title XVIII of the Act and all implementing regulations, insofar as not waived herein, and applicable guidance, as amended from time to time.

b. **Medicaid authority.** Section 1115A(b) of the Act authorizes CMS, through the Innovation Center, to enter into this Agreement. Medicaid reimbursement under the Model shall continue to operate consistent with all applicable laws, regulations and guidance, including but not limited to all requirements of Maryland's existing Medicaid state plan and/or Section 1115(a) demonstration waivers, as amended or modified from time to time, except to the extent these requirements are explicitly waived or modified in accordance with Section 1115A(d)(1) of the Act pursuant to this Agreement or in a relevant 1115(a) demonstration waiver or state plan amendment. The State represents and warrants that its Medicaid state plan and/or Section 1115(a) demonstration waivers will be consistent with the terms and conditions of this Agreement with respect to Medicaid by no later than March 31, 2014 and that it shall update timely its Medicaid state plan and/or Section 1115(a) demonstration waivers to accommodate any and all changes in payment methodologies that the State implements pursuant to this Agreement.

c. **Maryland authority to implement Model.** The State represents and warrants that it has the legal authority under Title 19 of the Health General Article of the Annotated Code of Maryland to require all Regulated Maryland Hospitals to charge rates in accordance with the rules and regulations of the HSCRC, and, under Title 15 of the Insurance Article and Title 15 of the Health General Article of the Annotated Code of Maryland to require all health insurance payers, including Medicaid, (hereafter, "Maryland Payers"), to reimburse Regulated Maryland Hospitals on the basis of rates established by the HSCRC. Failure by any federal health care program, other than Medicare and Maryland Medicaid, to pay for hospital services on the basis of HSCRC-approved rates does not constitute an event of termination as defined herein. The State further represents and warrants that it has the legal authority to enter into this Agreement and has, or will have by no later than July 1, 2014, bound by law or by contract its contractor(s), all Regulated Maryland Hospitals, and all Maryland Payers to

comply with the applicable terms and conditions of this Agreement and all submissions related to the Model required pursuant to this Agreement.

2. **Performance Period of Model.** The performance period shall consist of five performance years, each of 12 months' duration beginning on January 1 ("Performance Year"). The performance period of this Model will begin on January 1, 2014, and will end at midnight on December 31, 2018. CMS or the State may terminate the performance period of this agreement up to and including 11:59 PM EST on December 31, 2018 in accordance with Section 14. Upon the completion or termination of the performance period, the State and Regulated Maryland Hospitals shall have two calendar years from such date to complete a transition to payment under the national Medicare program, whereupon this agreement shall terminate automatically. Prior to the beginning of Performance Year 4, Maryland will submit a proposal for a new model, which shall limit, at a minimum, the Medicare per beneficiary total cost of care growth rate, to take effect no later than 11:59 PM EST on December 31, 2018. Approval of this new model proposal shall be in the sole discretion of CMS and shall require a separate agreement executed by CMS and the State.

3. **Non-election of Section 1814(b)(3) of the Act.** By entering into this Agreement, the State represents and warrants that it is electing to no longer have Medicare reimburse Regulated Maryland Hospitals in accordance with Section 1814(b)(3) of the Act, and represents that, effective with the first day of the Model, Maryland no longer has a demonstration project reimbursement system in continuous operation since July 1, 1977. The parties also agree that effective with the first day of the Model, Maryland is no longer in continuous operation of a demonstration project reimbursement system since July 1, 1977, as required under Section 1814(b)(3) of the Act. Therefore, Maryland no longer meets the requirements for reimbursement under Section 1814(b)(3) of the Act and all payment waivers under the 1814(b)(3) Medicare Waiver are hereby terminated. The State further represents and warrants that it has notified or will notify as soon as possible after execution of this Model Agreement all Regulated Maryland Hospitals and Maryland Payers that it no longer elects reimbursement in accordance with Section 1814(b)(3) of the Act; that it has elected to be reimbursed in accordance with this All-Payer Model Agreement, effective with the first day of the Model and continuing throughout the duration of the Agreement or any extension thereof; and that the provisions of Section 1814(b)(3) will no longer govern Regulated Maryland Hospitals.

4. **Medicare Payment Waivers.** Under the Model, CMS will waive the requirements of the following provisions of the Act as applied solely to Regulated Maryland Hospitals:

a. **IPPS.** Sections 1886(d), 1886(g), and 1886(b)(1) of the Act and implementing regulations at 42 CFR 412, Subparts A through M, only insofar as necessary solely for the purposes of this Model and only insofar as the State remains in compliance with the terms and conditions of this Agreement.

b. **OPPS.** Section 1883(t) of the Act and implementing regulations at 42 CFR Part 419, only insofar as the State remains in compliance with the terms and conditions of this Agreement.

c. **Medicare Readmissions Reduction Program.** Section 1886(q) of the Act and implementing regulations at 42 CFR 412.152 and .154, only insofar as the State remains in compliance with the terms and conditions set forth at Section 8.d.

d. **Medicare Hospital Acquired Conditions Program.** Section 1886(p) of the Act and implementing regulations at 42 CFR 412.172, only insofar as the State remains in compliance with the terms and conditions set forth at Section 8.e.

e. **Medicare Hospital Value Based Purchasing.** Section 1886(o) of the Act, and implementing regulations at 42 CFR 412.160 - 412.167, only insofar as the State submits an annual report to the Secretary that provides satisfactory evidence that a similar program in the State for Regulated Maryland Hospitals achieves or surpasses the measured results in terms of patient health outcomes and cost savings established under 1886(o) of the Act.

f. **Electronic Health Record ("EHR") penalty.** Effective October 1, 2014, Section 1886(b)(3)(B)(ix)(I) of the Act, and implementing regulations at 42 CFR 412.64, only insofar as the State adjusts the payments to each subsection (d) hospital that is not a meaningful EHR user (as defined in Section 1886(n)(3) of the Act and the implementing regulations at 42 CFR 495.4) in a manner that is designed to result in an aggregate reduction in payments to hospitals in the State, including but not limited to Regulated Maryland Hospitals, that is equivalent to the aggregate reduction that would have occurred if payments had been reduced to each subsection (d) hospital in a manner comparable to the reduction under Section 1886(b)(3)(B)(ix)(I) of the Act. The State must submit to the Department of Health and Human Services ("DHHS") and CMS the methodology it will use to make such payment adjustment at a time and in a manner and format to be specified by CMS.

CMS reserves the right to withdraw any waiver of Medicare payment requirements stated above ("Waiver") or any waiver that may be issued pursuant to Section 5 below ("Fraud and Abuse Waivers"), or as applicable, to terminate this Agreement, pursuant to the

procedures set forth in Section 14, if Maryland does not comply with the conditions associated with the applicable Waiver as set forth in this Agreement.

5. **Fraud and Abuse Waivers.** Financial arrangements between and among providers must comply with all applicable laws and regulations, except as may be explicitly provided in a waiver issued specifically for the Maryland All-Payer Model pursuant to Section 1115A(d)(1) of the Act. The Secretary may consider issuing waivers of certain fraud and abuse provisions in Sections 1128A, 1128B, and 1877 of the Act, as may be necessary solely for purposes of carrying out this Model. Such waivers, if any, would be set forth in separately issued documentation specific to this Model. Any such waiver would apply solely to this Model and could differ in scope or design from waivers granted for other programs or models.

6. **Continuation of IME/GME Exceptions Provided to Regulated Maryland Hospitals.** CMS shall continue to apply the requirements of the following Medicare provisions with respect to Regulated Maryland Hospitals:

    a. The Secretary shall continue to establish the rules for the application of Section 1886(d)(11) of the Act to Regulated Maryland Hospitals participating under this Model in the same manner as it would apply to the hospital if it were a hospital paid under Section 1814(b)(3) of the Act.

    b. The Secretary shall continue to establish the rules for the application of Section 1886(h)(3)(D) of the Act to Regulated Maryland Hospitals participating under this Model in the same manner as it would apply to the hospital if it were a hospital paid under Section 1814(b)(3) of the Act.

    Further, to the extent that a provision under the national Medicare program not listed in Section 4 or 6 or otherwise referred to in this Agreement provides for a particular treatment for Section 1814(b)(3) hospitals, the State may request an alternative approach for Regulated Maryland Hospitals under the Model, and, CMS may, at its sole discretion, permit the requested alternative approach. Such alternatives shall be memorialized in an addendum to this Agreement.

7. **Operations of Rate-Setting System**

    a. **All-payer rate-setting system.**

        i. This Model is predicated on Md. Code Ann. Health-Gen. §19-201 et seq. and the State's maintenance of an all-payer rate-setting system whereby:

1. The total costs of all Regulated Maryland Hospitals services are reasonable;

2. The aggregate rates are related reasonably to the Regulated Maryland Hospital's aggregate costs; and

3. Rates are set equitably among all Maryland Payers and Medicare without undue discrimination or preference.

ii. If Maryland makes changes to Md. Code Ann., Health-Gen. §19-201 *et seq.* that CMS determines, in its sole discretion, are not consistent with the all-payer requirement of this Model, CMS may pursue modification, Corrective Action, or termination under Section 14.

b. **Differential.**

i. **Differential definition.** For purposes of this agreement, the Differential is defined as the percentage difference between the rates established by the HSCRC for Regulated Maryland Hospitals for a given charge and the lesser amount paid by public payers (Medicare, Medicaid, and CHIP) for the same charge.

ii. **Medicare differential.** The total Differential (including working capital discount) that the State must provide Medicare for its business practices and prompt payment practices shall be at a minimum 6.0%.

iii. **Change in payment Differential.** If the per capita total hospital cost growth is less than the all-payer ceiling established in Section 8.a.i during a given Performance Year, but Medicare savings is not sufficient to meet the corresponding target set forth in Section 8.b.i, the State may apply a Differential to assure the required Medicare savings. To assure that the State solely uses the Differential in a manner consistent with this Agreement, CMS must review and approve any change in the Differential prior to its implementation. Any approved Differential must be applied prior to any deductible or coinsurance adjustment being made on any billing.

c. **Claims processing.** CMS shall continue to pay claims for Medicare services pursuant to established procedures and through the applicable Medicare Administrative Contractor(s) ("MAC").

d. **Design and approval of new payment methods.** The State will notify CMS of any new payment methodology for Regulated Maryland Hospitals, including but not limited to Population-Based Payment reimbursement pursuant to Section 8.c., prior to implementation. Upon notification, if after consultation with the State, CMS believes the change to be substantive, CMS may request within 7 business days of receipt of the State's notification, a detailed proposal and operational plan describing the new payment arrangement for review and approval by CMS. Notwithstanding the above, current payment methodologies used by the State, including routine rate-setting, shall not require prior approval as set forth under this subsection. Certain CMS approvals may be subject to further approval by other departments and/or agencies within the federal executive branch. This operational plan must include the following information:

i. How the proposed payment change will enhance Maryland's ability to meet the cost and quality targets established under this Model;

ii. The potential impact of the proposed payment change on the total Medicare cost growth rate;

iii. Descriptions of any waivers of the requirements of Title XI or Title XVIII of the Act that the State would like the DHHS to consider as part of the new payment method;

iv. Waivers of the requirements of Title XVIII of the Act that the State believes would be necessary for the successful implementation of a proposed payment model;

v. The perspective of key stakeholders, including Regulated Maryland Hospitals and governmental and third-party payers that might be included in the proposed payment change;

vi. The State's plans, as applicable, to encourage Regulated Maryland Hospitals' participation in any proposed payment change that will be voluntary; and

vii. The State's monitoring and evaluation strategy for the proposed payment change.

CMS shall make reasonable efforts to approve, reject or request amendment or modification of the State's proposal and operational plan within 180 calendar days of receipt. Notwithstanding the above, all normal DHHS approval

processes will apply to proposed new payment methodologies under this Model. Final approval of any proposal and operational plan shall be at the sole discretion of CMS and, as applicable, other departments and/or agencies in the federal executive branch.

8. **Parameters of Model Design.** Maryland must meet, including by imposing these obligations on Regulated Maryland Hospitals through any appropriate statutory or regulatory action, the following requirements as material terms of this Agreement:

    a. **All-payer total inpatient and outpatient hospital cost growth per capita.**

        i. **All-payer ceiling.** Over Performance Years 1, 2, and 3, the State must limit the cumulative annual all-payer per capita total hospital revenue growth for Maryland residents, as specified in this Agreement, to less than or equal to the per capita growth ceiling. This calculation will include all Regulated Revenue (as defined in Section 8.c.ii.) for Maryland residents and the per capita calculations will include all Maryland residents. For Performance Years 1 through 3, the growth limit is fixed at 3.58 percent per capita per year, which represents Maryland's per capita gross state product ("GSP") compound annual growth rate between 2002-2012. In the third quarter of Performance Year 3, the State may, subject to prior approval by CMS, update such annual all-payer per capita total hospital revenue growth limit for Performance Years 4 and 5 to Maryland's 10-year per capita GSP growth rate based on the most recently available data.

        ii. **All-payer baseline and Performance Year calculations.** By no later than May 1 in the first Performance Year, the State shall calculate the all-payer per capita total hospital revenue amount for Maryland residents in 2013 in accordance with the methodology set forth in Appendix 3. For any given Performance Year, by no later than May 1 of the subsequent Performance Year, the State will calculate the Performance Year's all-payer per capita total hospital revenue amount for Maryland residents in accordance with the methodology set forth in Appendix 3. At the same time, the State shall also calculate for the entire Model performance period, the compounded annual all-payer revenue limit along with the total hospital revenue amount for Maryland residents. No later than 30 calendar days after performing such calculations, the State will provide to CMS the Performance Year's and the composite Model years' calculated per capita total hospital revenue amount and, in accordance with applicable law, all underlying data, including access to contractors, contract deliverables, and

software systems used to make the calculation, necessary to validate the State's calculation.

iii. **Adjustments to the All-Payer limit calculation for exogenous factors.** Per capita cost increases may occur due to factors unrelated to the Model (e.g., a localized disease outbreak, expansion of health insurance coverage under the Affordable Care Act, the construction of the new hospital facility in Prince George's County). The State may submit in writing to CMS feedback on the impact of any such factors on the Model, including a suggestion on how to adjust the Model on the basis of such factors. Any such adjustment will be at the sole discretion of CMS.

b. **Medicare per beneficiary total hospital cost growth.**

i. **Performance Year savings.** Over the performance period of this Model, the State must produce aggregate savings in the Medicare per beneficiary total hospital expenditure for Maryland resident fee-for-service ("FFS") Medicare beneficiaries, regardless of the state in which the service was provided, equal to or greater than $330,000,000.00, to be calculated in the manner specified in Appendix 4. The State shall achieve the following minimum savings amount during the performance period of the Model:

Performance Year 1: $0.00 ($0.00 cumulative savings)
Performance Year 2: $49,500,000.00 ($49.5M cumulative savings)
Performance Year 3: $82,500,000.00 ($132M cumulative savings)
Performance Year 4: $115,500,000.00 ($247.5M cumulative savings)
Performance Year 5: $82,500,000.00 ($330M cumulative savings)

ii. **Medicare baseline and Performance Year calculations.** CMS shall calculate Medicare baseline and Performance Year expenditures in accordance with the methodology set forth in Appendix 4. Specifically, by no later than May 1 in the first Performance Year, CMS shall calculate a Medicare baseline consisting of the actual Medicare per beneficiary total hospital expenditure for Maryland resident FFS beneficiaries in 2013, regardless of the state in which the service was provided, and a baseline for the national Medicare per beneficiary total hospital expenditure for non-Maryland resident FFS beneficiaries. For any given Performance Year, by no later than May 1 of the subsequent Performance Year, CMS shall calculate the Performance Year's Medicare per beneficiary total

hospital expenditure amount for Maryland resident FFS beneficiaries, regardless of the state in which the service was provided.

iii. **Medicare savings calculation.** Using the methodology set forth in Appendix 4, CMS shall determine Medicare savings for each Performance Year by comparing the growth rate from the 2013 baseline in Medicare per beneficiary total hospital expenditures for Maryland resident FFS beneficiaries, regardless of the state in which the service was provided, to the national growth rate in Medicare per beneficiary total hospital expenditures for FFS beneficiaries. No later than 30 calendar days after performing such calculation, CMS will provide the State with the Performance Year's Medicare savings calculation and, in accordance with applicable law, all underlying data necessary to validate the calculation.

iv. **Adjustments to the Medicare savings calculation for payments made under the Medicare program and/or Medicare demonstrations or models.** CMS may make adjustments to the Medicare savings calculation as necessary and as specified in this sub-section to avoid duplicative accounting for, and payment of, amounts made to or received by hospitals in the State of Maryland that are participating in any existing or future Medicare program, demonstration or model, including but not limited to those that involve shared savings or incentive payments. In order to assure a fair comparison, CMS will adjust national Medicare fee-for-service expenditures in a manner similar to any adjustments made for Maryland Medicare fee-for-service expenditures, e.g., to reflect cash payments for hospitals outside of the fee for service model or under any shared savings or incentive payments. By no later than December 31 of Performance Year 1, CMS, in consultation with the State, will finalize an adjustment methodology to apply to each Performance Year of the Model, including Performance Year 1.

1. **Shared savings.** The State shall require all Regulated Maryland Hospitals that are participating in Medicare programs, demonstrations, or models involving shared savings to provide information to the State no less than annually on the amount of any and all shared savings payments distributed to the hospital, regardless of the entity receiving the payment from CMS. The State must transmit all such information to CMS no later than 60 calendar days following receipt. CMS shall adjust Maryland's annual Medicare savings amount as appropriate in accordance with the preceding paragraph.

2. **Program penalties.** Any Medicare penalties (e.g., EHR penalty) applied to hospitals in the State of Maryland shall be excluded from the calculation of the annual Medicare savings amount specified in this sub-section. CMS will exclude penalties from national data in a similar manner to achieve comparability.

v. **Adjustments to the Medicare savings calculation for exogenous factors.** CMS recognizes that Medicare per beneficiary cost increases may occur due to factors unrelated to the Model (e.g., a localized disease outbreak solely in Maryland, expansion of health insurance coverage under the Affordable Care Act, the construction of the new hospital facility in Prince George's County). The State may submit in writing to CMS feedback on the impact of any such factors on the Model, including a suggestion on how to adjust the Model on the basis of such factors. Any such adjustment will be at the sole discretion of CMS.

c. **Population-based revenue.**

i. **Population-Based Payment definition.** Population-Based Payment is defined as hospital payment that either (1) is directly population-based, such as tying hospitals' reimbursement to the projected services of a specific population or specific residents, or (2) establishes a fixed global budget for hospitals for services unconnected to assignment of a specific population but is related to historical trends, the hospital service area, and residents served through the implementation of innovative care models.

ii. **Regulated Revenue.** Regulated Revenue is defined as the full subset of revenue earned by Regulated Maryland Hospitals for which the State has the legal authority to set payment rates and for which CMS has agreed to reimburse on the basis of the set rates under this Model.

iii. **Hospital revenue requirements.** Over the performance period of this Model, the State must facilitate the movement of all Regulated Revenue for Maryland residents into Population-Based Payment reimbursement. The State must request prior approval from CMS to determine whether certain revenue qualifies as Population-Based Payment reimbursement. Beginning with the second Performance Year, by no later than May 1 following a Performance Year, the State must report the percentage of all Regulated Revenue for Maryland residents under Population-Based Payment reimbursement for the previous Performance Year. This percentage will be calculated by including in the numerator all Regulated

Revenue for Maryland residents approved by CMS as Population-Based Payment reimbursement and the denominator will include all Regulated Revenue for Maryland residents. The following minimum percentages of all Regulated Revenue under Population-Based Payment reimbursement must be met:

Performance Year 2: 50.0%
Performance Year 3: 60.0%
Performance Year 4: 70.0%
Performance Year 5: 80.0%

iv. **Non-population based revenue and variable cost factors.** The State will subject hospital Regulated Revenue that is not covered under a Population-Based Payment approach to a volume adjustment system with use of variable cost factors, update factors, and a volume governor, as necessary, so that these hospitals operate within the all-payer and Medicare revenue limitations prescribed by the Model as enumerated in this Agreement. The HSCRC will be able to adjust these factors on a more specific regional or hospital basis to assure accountability and compliance with the terms of this Agreement at the operational level for key population health and revenue goals.

d. **Maryland hospital readmissions program.**

i. **Model requirements.** As a condition of the Waiver set forth in Section 4.c., over the performance period of this Model, the State must reduce the aggregate Medicare 30-day unadjusted all-cause, all-site hospital readmission rate ("Readmission Rate") for Medicare FFS beneficiaries such that, by the end of Performance Year 5, Regulated Maryland Hospitals have achieved equal to or less than the national Readmission Rate for Medicare FFS beneficiaries at the end of Performance Year 5. If in a given Performance Year Regulated Maryland Hospitals, in aggregate, fail to outperform the national Readmissions Rate change by an amount equal to or greater than the cumulative difference between the Regulated Maryland Hospital and national Readmission Rates in the base period divided by five, CMS shall follow the corrective action and/or termination provisions of the Waiver of Section 1886(q) as set forth in Section 4.c and in Section 14. CMS shall consider whether the State can demonstrate that it is implementing a program for Regulated Maryland Hospitals and, as applicable, other hospitals in Maryland that achieves or surpasses the

measured results in terms of patient outcomes and cost savings established under Section 1886(q) of the Act.

ii. **Readmission rate calculation.**

1. **Base period calculation.** By no later than May 1 of the first Performance Year (2014), CMS will calculate the Regulated Maryland Hospital Readmission Rate and the national Readmission Rate for the base year (2013) in accordance with the methodology set forth in Appendix 5. CMS will provide the State with the calculation and, in accordance with the procedures set forth in Section 9 and applicable law, all underlying data necessary to validate the calculation.

2. **Performance period calculation.** For a given Performance Year, by no later than May 1 of the subsequent Performance Year, CMS shall calculate the Regulated Maryland Hospital Readmission Rate and the national Readmission Rate in accordance with the methodology set forth in Appendix 5. CMS will provide the State with the calculation and, in accordance with the procedures set forth in Section 9 and applicable law, all underlying data necessary to validate the calculation.

e. **Maryland hospital acquired conditions program.**

i. **Model requirements.** As a condition of the Waiver set forth in Section 4.d, over the performance period of this Agreement, the State must achieve an aggregate 30.0% reduction across all 65 Potentially Preventable Conditions (PPC) that comprise Maryland's Hospital Acquired Condition program. The State shall calculate percentage achievement in accordance with the methodology set forth in Appendix 6. The State will provide CMS with the calculation and, in accordance with applicable law, all underlying data necessary to validate the calculation. Prior to Performance Year 2, CMS and Maryland will establish annual reduction targets for PPCs that overlap with conditions indicated in Appendix 6. If the State fails to achieve an aggregate 6.89% reduction across all 65 PPCs that comprise Maryland's Hospital Acquired Condition program in a given Performance Year, CMS shall follow the corrective action and/or termination provisions of the Waiver of Section 1886(p) as set forth in Section 14. CMS shall consider whether the State can

demonstrate that it is implementing a program for Regulated Maryland Hospitals and, as applicable, other hospitals in Maryland that achieves or surpasses the measured results in terms of patient outcomes and cost savings established under Section 1886(q) of the Act.

f. **Medical education innovation.** The State must convene medical schools and schools of health professionals in Maryland to develop a five-year plan that will serve as a blueprint for improvement elements necessary to sustain health transformation initiatives in Maryland and which will be generalizable to other schools across the United States. The State shall submit this plan to CMS no later than January 1, 2016. CMS will not provide funds to develop or implement such plan. Further, the State will not fund the development of such plan through an increase in hospital rates reimbursed by Maryland Payers and Medicare.

g. **Regulated Revenue at risk.** The State must ensure that the aggregate percentage of Regulated Revenue at risk for quality programs administered by the State is equal to or greater than the aggregate percentage of revenue at risk under national Medicare quality programs. Quality programs include, but are not limited to, readmissions, hospital acquired conditions, and value-based purchasing programs. CMS shall provide the State with the aggregate percentage of revenue at risk under national Medicare quality programs annually. Each Performance Year, at a time and in a manner and format to be specified by CMS, the State must provide CMS with Maryland's aggregate percentage of Regulated Revenue at risk for quality programs and shall make available, at CMS's request, all underlying data, including access to contractors, contract deliverables, and software systems used to make the calculation, necessary to validate the State's calculation.

9. **Data Sharing.** Over the performance period of the Model, CMS is willing to accept data requests from the State or its agents for data necessary to achieve the purposes of the Model. Such data could include de-identified (by patient or by provider) data or individually identifiable health information such as claims level data. All such requests for individually-identifiable health information must clearly state the HIPAA basis for requested disclosure. CMS will make best efforts to approve, deny or request additional information within 30 calendar days of receipt. Appropriate privacy and security protections will be required for any data disclosed under this Model.

10. **Confidentiality.** The State must develop procedures to protect the confidentiality of all information that identifies individual Medicare beneficiaries in accordance with all applicable laws.

11. **Evaluation of Model.**

a. **CMS evaluation.** CMS shall evaluate the Model in accordance with Section 1115A(b)(4) of the Act, and in comparison with the national Medicare program in other states. CMS and/or its contractor(s) shall measure, monitor, and evaluate the overall impact of the Model including but not limited to the impacts on program expenditures and service utilization changes, including any shifting of services between medical and non-medical services and any growth in Maryland hospital spending by non-resident Medicare beneficiaries receiving hospital care in Maryland. The evaluation shall include elements selected by CMS for assessing the Model including, changes in person-level health outcomes, experience of care, and costs by sub-population(s); changes in patterns of primary, acute, and long-term care and support services use and expenditures; and changes in the dynamics of the healthcare market, using principles of rapid-cycle evaluation and feedback. The evaluation shall consider potential interactions with other demonstrations and initiatives, and seek to isolate the effect of this Model as appropriate. CMS and the State agree that the State or its agents will provide CMS and/or its contractor(s) with all data needed to operate the Model in accordance with applicable law. Such data, may include, but would not be limited to, individually identifiable health information that is needed to carry out CMS' evaluation and monitoring of this Model. The State will ensure the production of such data for evaluation purposes through statutory or regulatory mandates on those holding the required data, or through arrangements under alternative legal bases. Furthermore, the State and its agents shall cooperate, and shall also ensure the cooperation of the State's contractor(s) and, to the extent permitted by law, Regulated Maryland Hospitals and Maryland Payers, in any CMS health oversight activities under its health oversight authority. The State, its contractor(s) and Regulated Maryland Hospitals must submit timely all data required for the monitoring and evaluation of this Model, which may include the terms of any arrangements related to rate-setting or payment entered into between the State and Regulated Maryland Hospitals prior to or during the Model. Where available, and to the extent permitted by law, the State will make best efforts to obtain data from Maryland Payers necessary to evaluate and monitor the Model. As permitted by applicable law, the State and Regulated Maryland Hospitals must submit both historical data relevant to the evaluation from the years immediately preceding the Model, and data generated during the Model period.

b. **Maryland evaluation.** For any given Performance Year, by no later than June 30 of the subsequent Performance Year, the State must submit to CMS a report cataloging its performance with respect to the financial and quality requirements

described in this Agreement, including the data and measures listed in Appendix 7. The State must make available to CMS and CMS' contractors for validation and oversight purposes the Maryland datasets and methodologies used for this evaluation, including, as applicable, access to contractors, contract deliverables, and software systems used to make calculations required under this Agreement. Any information provided to CMS will be used by CMS solely for the purposes described in this Agreement. Additionally, the State will make best efforts to require by law or regulation non-federal hospitals licensed in the State of Maryland, including but not limited to Regulated Maryland Hospitals, to meet the reporting requirements under the Hospital Inpatient Quality Reporting ("IQR") and Hospital Outpatient Quality Reporting ("OQR") programs. In its annual report, Maryland must include a summary of data it has received on all such hospitals' performance with respect to the IQR and OQR measures.

12. **Monitoring of Model.**

a. **CMS monitoring.** CMS shall monitor the State's compliance with the terms of this Agreement and reserves the right to conduct monitoring activities.

b. **Maryland monitoring.** The State must establish procedures to monitor Regulated Maryland Hospitals. The State's monitoring plan, as updated from time to time, is attached to this Agreement as Appendix 8. Further, for any given Performance Year, by no later than May 1 of the subsequent Performance Year, the State and CMS will calculate the percentage of Medicare hospital revenue attributable to non-resident Medicare beneficiaries. If the percentage of Medicare hospital revenue attributable to non-resident Medicare beneficiaries is 1.5 percentage points above the percentage level of calendar year 2013, the State must also provide a review of the causes of such increase. Further, the State must monitor for deviations from standard business practices related to the Model by Regulated Maryland Hospitals and will report any such deviations to CMS no later than 30 calendar days after identification. The State must timely provide CMS with records relating to its monitoring efforts and findings at CMS's request.

c. **Maintenance of records.** In accordance with applicable law, the State must maintain and give CMS, DHHS, the Department of Justice, the Government Accountability Office, and other federal agencies or their designees access to all books, contracts, records, documents, software systems, and other information (including data related to calculations required under this Agreement, Medicare utilization and costs, quality performance measures, shared savings distributions, and other financial arrangements) sufficient to enable the audit, evaluation,

inspection, or investigation of the State's and/or Regulated Maryland Hospitals' compliance with the requirements of this Model. The State must maintain such books, contracts, records, documents, and other information for a period of 10 years after the final date of the performance period or from the date of completion of any audit, evaluation, inspection, or investigation, whichever is later.

13. **Modification.** The Parties may amend this Agreement, including any appendix hereto, at any time by mutual written consent. CMS may, in its sole discretion, amend this Agreement for good cause shown or as necessary to comply with applicable federal or State law, regulatory requirements, accreditation standards or licensing guidelines or rules. CMS shall include with any proposed amendment an explanation of the reasons for the proposed amendment. To the extent practicable, CMS shall provide the State with 30 calendar days advance written notice of any such amendment, which notice shall specify the amendment's effective date. If State law precludes application of the amendment to the Agreement, the parties will promptly seek modification of the amendment. If modification of the amendment is impracticable and consensus cannot be reached, CMS may terminate the Model and/or Waivers under the terms of Section 14.

14. **Corrective Action and Termination of Model and/or Waivers.**

    a. **Warning notice and corrective action plan ("CAP").** If CMS determines that a Triggering Event (as defined in this section) has occurred, CMS shall provide written notice to the State that it is not meeting a requirement of this Agreement ("Warning Notice") with an explanation and, as permitted by applicable law, data supporting its determination. CMS shall provide the State with the Warning Notice no later than six months following the end of the applicable Performance Year for any Triggering Event specified in Section 14.c.ii-vii; CMS may provide the Warning Notice at any time for all other Triggering Events in Section 14.c. Within 90 calendar days of receipt of the Warning Notice, the State must submit a written response to CMS. CMS will review the State's response within 90 calendar days and will either accept the response as sufficient or require the State to submit a CAP within 30 calendar days addressing all actions the State and/or participants in the Model will take to correct any deficiencies and remain in compliance with this Agreement. Options for the CAP may include, but are not limited to, new safeguards or programmatic features, modification to the Model, and/or prospective adjustments to hospital payment levels. In developing its CAP, the State shall consult with CMS as to whether the CAP fully corrects any deficiencies. Approval of the CAP shall be at the sole discretion of CMS.

i. **Review factors considered by CMS.** A Triggering Event may or may not require corrective action, depending on the totality of the circumstances. CMS will consider whether the State can demonstrate a factor unrelated to the Model caused the Triggering Event (e.g., a localized disease outbreak solely in Maryland, expansion of health insurance coverage under the Affordable Care Act, the construction of the new hospital facility in Prince George's County). Notwithstanding the above, CMS, in its sole discretion, will determine the sufficiency of the State's response to any Warning Notice issued pursuant to this section.

b. **Implementation of CAP.** The State shall successfully implement any required CAP as approved by CMS, by no later than 365 calendar days from the date of postmark of the Warning Notice. If the Triggering Event is related to an aspect of the Model involving a Waiver from the Act, as specified in Section 4.c., d., e., and f., CMS, in its sole discretion, shall decide whether to allow the State to maintain such Waiver during the time period that the State is under the CAP. In making this determination, CMS shall consider whether the State can demonstrate that it is implementing a program for Regulated Maryland Hospitals and, as applicable, other hospitals in Maryland that achieves or surpasses the measured results in terms of patient outcomes and cost savings established under the applicable section of the Act from which it was waived.

c. **Triggering Event.** A Triggering Event may include, but is not limited to, any of the following:

i. A material breach of any provision set forth in this Agreement.

ii. A determination by CMS that the State has not produced aggregate savings in the Medicare per beneficiary total hospital expenditure for Maryland resident FFS beneficiaries, regardless of the state in which the service was provided, for two consecutive Performance Years, as calculated in accordance with Section 8.b.

iii. A determination by CMS that the State has failed to meet the cumulative target set forth for the applicable Performance Year under Section 8.b. by a total of $100,000,000.00 or more.

iv. A determination by CMS that the annual growth rate in Medicare per beneficiary total cost of care for Maryland residents, regardless of the state in which such residents receive service, is greater than 1.0 percentage point above the annual national Medicare per beneficiary total cost of care

growth rate during a single Performance Year. In accordance with Section 9, and as permitted by applicable law, CMS will provide the State with national and Maryland-specific data necessary to validate CMS's calculation of the annual growth rate in Medicare per beneficiary total cost of care trends by service line.

v. Effective beginning Performance Year 2, a determination by CMS that the annual growth rate in Medicare per beneficiary total cost of care for Maryland residents, regardless of the state in which such residents receive service, is greater than the annual national Medicare per beneficiary total cost of care growth rate for any two consecutive Performance Years.

vi. A determination by CMS that the percentage of Medicare hospital revenue attributable to non-resident Medicare beneficiaries is 1.5 percentage points above the percentage level of calendar year 2013.

vii. A determination by CMS that the quality of care provided to Medicare, Medicaid or CHIP beneficiaries has deteriorated.

viii. A determination by CMS that the State and/or Regulated Maryland Hospital(s) have taken actions that compromise the integrity of the Model and/or the Medicare trust funds.

d. **Rescission or modification of aspects of Model and/or Waivers.** If CMS determines, in its sole discretion, that the State has not successfully implemented a required CAP in the time period specified under a Warning Notice, CMS may amend or rescind the relevant aspect of the Model and/or relevant accompanying Waiver. If CMS rescinds a Waiver provided for under Section 4, except for the Waivers specified in Sections 4.a. and 4.b., the State must comply with applicable national Medicare requirements by a date certain to be specified by CMS.

e. **Termination of the Performance Period.**

i. **Termination by CMS.** If CMS determines, in its sole discretion, that the State has not successfully implemented a required CAP or complied with an alternative CMS-provided corrective action in the time period specified under a Warning Notice, CMS may immediately terminate the performance period of this Agreement. Notwithstanding the above, CMS will not terminate this Agreement based on Triggering Events under Sections 14.c.vi., but may require additional corrective action to be specified in the sole discretion of CMS.

ii. **Termination by the State.** The State may terminate the performance period of this Agreement at any time for any reason upon 180 calendar days written advance notice to CMS.

iii. **Transition to IPPS/OPPS.** If either CMS or the State terminates the performance period of this Agreement, the State shall have two calendar years from the date of termination for Regulated Maryland Hospitals to transition to payment under the national Medicare program, whereupon this Agreement shall terminate immediately.

iv. **Survival.** Termination of this Agreement by either Party shall not affect the rights and obligations of the Parties accrued prior to the effective date of the termination or expiration of this Agreement.

f. **Termination under Section 1115A(b)(3)(B).** CMS may terminate this Agreement immediately if the Secretary makes findings under Section 1115A(b)(3)(B) of the Act requiring the termination of the Model.

g. **Federal government enforcement.** Nothing contained in this Agreement is intended or shall be construed as a waiver by the United States Department of Justice, the Internal Revenue Service, the Federal Trade Commission, HHS Office of the Inspector General (OIG), or CMS of any right to institute any proceeding or action against defendants for violations of any statutes, rules or regulations administered by the federal government, or to prevent or limit the rights of the federal government to obtain relief under any other federal statutes or regulations, or on account of any violation of this Agreement or any other provision of law. This Agreement shall not be construed to bind any federal government agency except CMS, and this Agreement binds CMS only to the extent provided herein. The failure by CMS to require performance of any provision shall not affect CMS's right to require performance at any time thereafter, nor shall a waiver of any breach or default of this Agreement constitute a waiver of any subsequent breach or default or a waiver of the provision itself. None of the provisions of this Agreement limit or restrict the OIG's authority to audit, evaluate, investigate, or inspect the State, hospitals or providers in the state of Maryland, or individuals or entities performing functions or services related to activities under this Agreement.

15. **Preclusion.**

a. **Matters precluded from administrative and judicial review.** The State acknowledges and understands that Section 1115A(d)(2) of the Act precludes

from administrative and judicial review the elements, parameters, scope and duration of this Model, and that the elements and parameters of this Model include, but are not limited to, the following: (1) the methodology used to determine the annual all-payer per capita total hospital cost growth for Maryland residents; (2) the methodology used to determine the aggregate savings in the Medicare per beneficiary total hospital expenditure for Maryland resident FFS beneficiaries; (3) the methodology used to determine the percentage of Regulated Revenue that is under Population-Based Payment reimbursement; (4) the methodology used to make adjustments to the Medicare savings calculation as necessary to avoid duplicative accounting for, and payment of, Medicare amounts made to or received by hospitals, including but not limited to those that involve shared savings or incentive payments; (5) claims that dispute financial or quality results based on the State's inability to use or apply CMS data provided during the Performance Year; and (6) the transition to payment under the national Medicare program if invoked under this Agreement.

16. **Entire Agreement.** This Agreement, including all appendices hereto, each of which is incorporated by reference, constitutes the entire agreement between the Parties.

The Parties are signing this Agreement on the date stated in the introductory clause.

OFFICE OF THE GOVERNOR OF MARYLAND

By _____

Martin O'Malley
Governor

CENTERS FOR MEDICARE & MEDICAID SERVICES

By _____, MD

Patrick Conway
Director, CMMI

HEALTH SERVICES COST REVIEW COMMISSION

By _____

John M. Colmers
Chairman

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

By _____, M.D.

Joshua M. Sharfstein
Secretary

Attachments:

Appendix 1: Maryland Hospital Facilities and Revenue Regulation Status
Appendix 2: Maryland Statement of Non-Election of Section 1814(b)(3)
Appendix 3: Specifications for Calculating All-Payer Ceiling
Appendix 4: Specifications for Calculating Medicare Savings
Appendix 5: Specifications for Maryland's Hospital Readmissions Program
Appendix 6: Specifications for Maryland's Hospital Acquired Conditions Program
Appendix 7: Maryland Reporting
Appendix 8: Maryland Monitoring Plan

Appendix 1: Maryland Hospital Facilities and Revenue Regulation Status

Maryland regulates rates and Medicare pays on the basis of regulated rates for those entities indicated below. The State will update timely this list, such that at all times during the term of this Agreement it accurately reflects all hospitals in the State of Maryland for which payments are regulated by the State for all payers including Medicare.

Regulated (Medicare)	Medicare Provider Number		Hospital Name	Type
Yes	21	0001	Meritus Medical Center	Acute
Yes	21	0002	University of Maryland Medical Center	Acute
Yes	21	0003	Dimensions - Prince Georges	Acute
Yes	21	0004	Holy Cross	Acute
Yes	21	0005	Frederick Memorial	Acute
Yes	21	0006	UCH-Harford	Acute
Yes	21	0008	Mercy	Acute
Yes	21	0009	Johns Hopkins	Acute
Yes	21	0010	UM Shore Medical Easton/Dorchester	Acute
Yes	21	0011	St. Agnes	Acute
Yes	21	0012	Sinai	Acute
Yes	21	0013	Bon Secours	Acute
Yes	21	0015	MedStar Franklin Square	Acute
Yes	21	0016	Washington Adventist	Acute
Yes	21	0017	Garrett County	Acute
Yes	21	0018	MedStar Montgomery General	Acute
Yes	21	0019	Peninsula Regional	Acute
Yes	21	0022	Suburban	Acute
Yes	21	0023	Anne Arundel	Acute
Yes	21	0024	MedStar Union Memorial	Acute
Yes	21	0027	Western Maryland Health System	Acute
Yes	21	0028	MedStar St. Mary's	Acute
Yes	21	0029	Johns Hopkins -Bayview	Acute
Yes	21	0030	UM Shore Medical Center Chestertown	Acute
Yes	21	0032	Union Hospital Cecil County	Acute
Yes	21	0033	Carroll County Medical Center	Acute
Yes	21	0034	MedStar Harbor Hospital	Acute
Yes	21	0035	UM Charles Regional Medical Center	Acute
Yes	21	0037	UM Shore Medical Easton	Acute
Yes	21	0038	UMMC Midtown	Acute

Yes	21	0039	Calvert Memorial	Acute
Yes	21	0040	Northwest	Acute
Yes	21	0043	UM Baltimore Washington	Acute
Yes	21	0044	G.B.M.C.	Acute
Yes	21	0045	McCready	Acute
Yes	21	0048	Howard County General Hospital	Acute
Yes	21	0049	Upper Chesapeake Health	Acute
Yes	21	0051	Doctors Community	Acute
Yes	21	0055	Dimensions - Laurel Regional	Acute
Yes	21	0060	Ft. Washington	Acute
Yes	21	0061	Atlantic General	Acute
Yes	21	0062	MedStar Southern Maryland	Acute
Yes	21	0063	UM St. Joseph	Acute
Yes	21	0904	Johns Hopkins - Oncology	Acute
Yes	21	0058	UM Rehabilitation & Orthopedic Institute	Acute
Yes	21	0056	MedStar Good Samaritan	Acute
Yes	21	0057	Adventist HealthCare - Shady Grove	Acute
Yes	21	8992	Univ. of MD MEIMS	Acute
Yes	21	0087	Germantown Emergency Center	FSE
Yes	21	0088	Queen Anne's Emergency Center	FSE
Yes	21	0333	Bowie Emergency Center	FSE
Yes	21	5033	Levindale	Specialty
No	21	02V0	VA –Maryland Healthcare System - Baltimore	Acute-Veterans
No	21	3478	Adventist Behavioral Health at Eastern Shore	Psychiatric
No (Note)	21	4000	Sheppard Pratt	Psychiatric
No (Note)	21	4003	Brook Lane	Psychiatric
No (Note)	21	4013	Adventist Behavioral Health Rockville	Psychiatric
No	21	3028	Health South - Chesapeake Rehab	Rehabilitation
No	21	3029	Adventist Rehab of Maryland	Rehabilitation
No (Note)	21	5034	Mt. Washington Pediatrics	Specialty
No	21	4012	Thomas B Finan Center	Psychiatric
No	21	3301	Kennedy Krieger Institute	Specialty

Note: The State regulates rates for these facilities for non-governmental payers, but Medicare does not pay on the basis of these regulated rates.

STATE OF MARYLAND
OFFICE OF THE GOVERNOR

MARTIN O'MALLEY
GOVERNOR

STATE HOUSE
100 STATE CIRCLE
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(410) 974-3901
(TOLL FREE) 1-800-811-8336

TTY USERS CALL VIA MD RELAY

February 6, 2014

Secretary Kathleen Sebelius
U.S. Department of Health and Human Services
200 Independence Ave., S.W.
Washington, DC 20201

Dear Secretary Sebelius:

In April of 1985, Maryland's Governor Harry Hughes notified the Health Care Financing Administration that the State of Maryland was choosing to continue its Medicare waiver, granted as of July 1, 1977, in accordance with the provisions of Section 1814(b)(3) of the Social Security Act. During these intervening years, Maryland has consistently held the rate of increase in hospital costs per admission below the national rate of increase, with cumulative savings to all payers of more than $52.8 billion. Maryland's unique system has also fairly distributed the costs of caring for the uninsured, and it has eliminated cost shifting among payers.

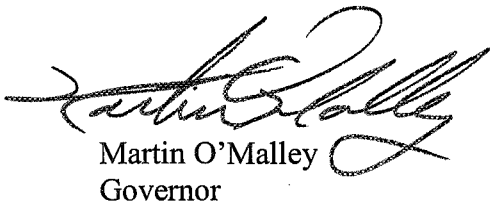
In recent years, changes in the national healthcare delivery system have created an imperative to control costs, improve outcomes, and improve patient experience at the same time. To accomplish these goals, Maryland's all-payer system needs to be modernized. It was designed to provide incentives for treating people when they got sick – but it provides insufficient incentive for keeping people healthy.

Our All-Payer System allows the federal government and Maryland to work together to test innovations and payment reforms. I am proud, therefore, that the partnership between the State of Maryland and the federal government is becoming even stronger with the implementation of a groundbreaking new model of health care delivery. The new model will allow us to create consistent and aligned incentives for all providers. Our hospitals have committed to achieving significant quality improvements, including reductions in the rate of readmissions and the number of patients with hospital-acquired-conditions. Through this continuing partnership, we are committed to serving as a guide for the rest of the nation in the launching of an innovative and transformative healthcare delivery system that prioritizes the prevention of sickness, the promotion of wellness, and the reduction of overall costs.

Therefore, the State of Maryland elects to no longer have Medicare reimburse our hospitals in accordance with Section 1814(b)(3), and represents that, effective with the first day of the new Model, i.e., January 1, 2014, Maryland is no longer in continuous operation of a demonstration project reimbursement system since July 1, 1977, as required under Section 1814(b)(3) of the Act. Therefore, because Maryland and CMS have entered into the Maryland All-Payer Model Agreement, Maryland acknowledges that it no longer meets the requirements for reimbursement under Section 1814(b)(3) of the Act, and understands that all payment waivers under the 1814(b)(3) Medicare Waiver are thus terminated.

On behalf of the State of Maryland, thank you for your longstanding support of Maryland's unique approach to hospital payment, for your commitment to innovation, and for your efforts in bringing to fruition this bold new system of providing and paying for the care of all of Maryland's residents.

Sincerely,



Martin O'Malley
Governor

cc: Secretary Joshua M. Sharfstein, Maryland Department of Health & Mental Hygiene
John Colmers, Chairman, Health Services Cost Review Commission

Appendix 3: Specifications for Calculating All-Payer Ceiling

I. The revenue increase limit calculation

1) Base period: Regulated gross patient service revenue for Maryland residents in Maryland hospitals, where Maryland regulates rates paid by all-payers[1]. The base period is calendar year 2013.
2) Application of growth limit: Each year, this amount is increased by the annual growth ceiling (Base period revenue multiplied by 1 + All-Payer Revenue Limit of 3.58% for the first three years of the Model)
3) Population adjustment: Each year, the revenue limit will be adjusted for population growth, based on population projections from the Department of State Planning (Results of Line 2 above X 1 + Population Growth Percentage)
4) Adjusted base: The results of this calculation will result in an adjusted base period that can be used in the calculation for the following year
5) Adjustments to cumulative revenue limit calculation: Maryland may request adjustments to the methodology used to calculate the limit. Adjustments will be reported and be subject to approval by CMMI/CMS. Requests for adjustment may include but are not limited to the following:
    a) Changes in Regulated Revenues: If Maryland's regulation of hospital revenues were changed through statute and/or additional applications with CMS.
    b) In and Out-Migration of Maryland residents: Changes in the in and out-migration of Maryland residents.
    c) Exogenous Factors: Any exogenous factors that impacted hospital revenues

II. Reporting of actual revenue for comparison to the ceiling

1) Actual revenue will be reported in a consistent manner with the calculation of the revenue limit calculation, beginning with Performance Year 2014.
    a) Actual revenue will include gross revenue for Maryland residents served in Maryland hospitals for those hospitals where HSCRC sets the rates paid by all-payers.
    b) By May 1 of each year following the end of the Performance Year, the State will compare the actual revenues to the maximum allowed revenue under the Model.
    c) Actual revenues will be adjusted for changes in differential to achieve the required Medicare savings of the Model as follows: If HSCRC adjusts gross revenue to reflect the use of an increased differential to achieve cost savings to Medicare that are permitted under the Maryland All-Payer Model, the resulting changes to gross revenue when calculating a new differential will be netted against the gross revenue in reporting the actual revenue.

[1] This excludes several facilities where Maryland sets hospital rates but these facilities are not

III. The Population Growth Factor

The population growth estimates used in the calculations will be based on the population estimates of Maryland residents, based on Department of State Planning projections.

IV. All-Payer Per Capita Total Hospital Calculation

For each Performance Year, beginning with Performance Year 2014, by May 1 of the following year, Maryland will provide CMS with a calculation of the All-Payer Per Capita Total Hospital Amount by dividing the actual revenues as described in this Appendix by the most recently available population estimates at the time of the calculation.

Appendix 4: Specifications for Calculating Medicare Savings

1. CMS will calculate two fractions –1) Medicare per beneficiary inpatient hospital expenditures and 2) Medicare per beneficiary outpatient hospital expenditures, both for the State of Maryland and the nation. These two fractions will be added to determine the Medicare per beneficiary total hospital expenditures.
    - This calculation will be done for both national Medicare fee-for-service beneficiaries and Maryland resident Medicare fee-for-service beneficiaries.
    - The per beneficiary total hospital expenditure calculation for Maryland resident Medicare fee-for-service beneficiaries will include all inpatient and outpatient hospital expenditures for Maryland Medicare fee-for-service beneficiaries per these specifications, regardless of the state of service.

2. Medicare savings will be calculated in the following manner:
    - Using the calculated Medicare per beneficiary total hospital expenditure described above, a baseline that is the actual Medicare per beneficiary total hospital expenditures for Maryland Medicare fee-for-service beneficiaries in 2013 will be established.
    - For any given performance year, the baseline will be trended forward by the actual growth rate in national Medicare per beneficiary hospital expenditures to establish a benchmark. The national Medicare per beneficiary hospital expenditure amount will be calculated in the same manner as the Maryland Medicare per beneficiary expenditure amount.
    - For the same performance year, the savings amount will be determined by comparing actual Maryland Medicare per beneficiary total hospital expenditures to the benchmark.
    - CMS shall total all performance years to determine the cumulative savings/excess expenditure.

CMS will share the details of the methodology to be used for this calculation with Maryland. CMS may make adjustments to the Medicare savings calculation as necessary and as specified in this Agreement.

3. Medicare per beneficiary inpatient expenditures will be calculated by including in the numerator all fee-for service claims with a claim code "60" (indicating an inpatient service) billed from any facility listed in the table below. Facility serial numbers indicate the facility type. Serial numbers preceded with "21" indicate the facility is located in Maryland.

4. Medicare per beneficiary outpatient expenditures will be calculated by including in the numerator all fee-for service claims with a claim code "40" (indicating an outpatient service) billed from any of the highlighted facilities listed in the table below with the following exception: any 72x bill type (CLM_BILL_FAC_TYPE_CD = '7' and CLM_BILL_CLSFCTN_CD = '2') will be excluded as these represent bills from ESRD clinics.

5. CMS and Maryland understand that Medicare billing rules and requirements may change over the course of the Model. As stated in Section of 13 of this Agreement, CMS and Maryland may modify the savings calculation methodology described in this Appendix.

6. CMS will make available data used for this calculation as specified in Section 9 of this Agreement.

Medicare Facility Types

Serial Number	Facility Description
0001-0879	Short-term (general and specialty) hospitals where TOB = 11X; ESRD clinic where TOB = 72X
0880-0899	Reserved for hospitals participating in ORD demonstration projects where TOB = 11X; ESRD clinic where TOB = 72X
0900-0999	Multiple hospital component in a medical complex (numbers retired) where TOB = 11X; ESRD clinic where TOB = 72X
1000-1199	Reserved for future use
1200-1224	Alcohol/drug hospitals (excluded from PPS-numbers retired) where TOB = 11X; ESRD clinic where TOB = 72X
1225-1299	Medical assistance facilities (Montana project); ESRD clinic where TOB = 72X
1300-1399	Rural Primary Care Hospital (RCPH) - eff. 10/97 changed to Critical Access Hospitals (CAH)
1400-1499	Continuation of 4900-4999 series (CMHC)
1500-1799	Hospices
1800-1989	Federally Qualified Health Centers (FQHC) where TOB = 73X; SNF (IP PTB) where TOB = 22X; HHA where TOB = 32X, 33X, 34X
1990-1999	Christian Science Sanatoria (hospital services) - eff. 7/00 changed to Religious Nonmedical Health Care Institutions (RNHCI)
2000-2299	Long-term hospitals
2300-2499	Chronic renal disease facilities (hospital based)
2500-2899	Non-hospital renal disease treatment centers
2900-2999	Independent special purpose renal dialysis facility (1)
3000-3024	Formerly tuberculosis hospitals (numbers retired)
3025-3099	Rehabilitation hospitals
3100-3199	Continuation of Subunits of Nonprofit and Proprietary Home Health Agencies (7300-7399) Series (3) (eff. 4/96)
3200-3299	Continuation of 4800-4899 series (CORF)
3300-3399	Children's hospitals (excluded from PPS) where TOB = 11X; ESRD clinic where TOB = 72X
3400-3499	Continuation of rural health clinics (provider-based) (3975-3999)
3500-3699	Renal disease treatment centers (hospital satellites)
3700-3799	Hospital based special purpose renal dialysis facility (1)
3800-3974	Rural health clinics (free-standing)
3975-3999	Rural health clinics (provider-based)
4000-4499	Psychiatric hospitals
4500-4599	Comprehensive Outpatient Rehabilitation Facilities (CORF)
4600-4799	Community Mental Health Centers (CMHC); 9/30/91 - 3/31/97 used for clinic OPT where TOB = 74X

4800-4899	Continuation of 4500-4599 series (CORF) (eff. 10/95)
4900-4999	Continuation of 4600-4799 series (CMHC) (eff. 10/95); 9/30/91 - 3/31/97 used for clinic OPT where TOB = 74X
5000-6499	Skilled Nursing Facilities
6500-6989	CMHC / Outpatient physical therapy services where TOB = 74X; CORF where TOB = 75X
6990-6999	Christian Science Sanatoria (skilled nursing services) - eff. 7/00 Numbers Reserved (formerly CS)
7000-7299	Home Health Agencies (HHA) (2)
7300-7399	Subunits of 'nonprofit' and 'proprietary' Home Health Agencies (3)
7400-7799	Continuation of 7000-7299 series
7800-7999	Subunits of state and local governmental Home Health Agencies (3)
8000-8499	Continuation of 7400-7799 series (HHA)
8500-8899	Continuation of rural health center (provider based) (3400-3499)
8900-8999	Continuation of rural health center (free-standing) (3800-3974)
9000-9799	Continuation of 8000-8499 series (HHA) (eff. 10/95)
9800-9899	Transplant Centers (eff. 10/1/07)
9900-9999	Reserved for future use

Appendix 5: Specifications for Maryland's Hospital Readmissions Program

1. Use Part A claims for all Medicare beneficiaries that were enrolled in fee-for-service during the reference period and within 30 calendar days of the end of that period.

2. Limit analysis to inpatient claims from acute care hospitals.

3. Combine multiple stays (including transfers) into a single stay if the last day of one stay is the same as the first day of the next stay.
    - Multiple claims are combined into a single stay if the claims are on consecutive calendar days (i.e., March 2nd and March 3rd) and the first claim has a discharge code of 30 (still a patient).

4. Classify each inpatient stay as an index admission, a readmission, or both, as follows:
    - An inpatient stay counts as an index admission if:
        - The last service date for a stay falls within the month being analyzed and,
        - The stay does not have a patient discharge status code of 20 (patient died during stay).
        - Instances where a patient was discharged "against medical advice" are included as index stays.

    - An inpatient stay counts as a readmission if the first day of the stay occurred within 30 calendar days of the last service date of an index admission stay.
        - For example, when identifying readmissions for March index stays, the first day of the stay for a readmission could be as early as March 2 or as late as April 30.
        - For transfers, the 30-day period starts at the end of the combined stay.
        - Inpatient stays can count as readmissions even if the patient died during the stay.

5. The monthly readmission rate is equal to the total number of readmissions that occurred during the 30-day period divided by the total number of index admissions that occurred during the month.
    - Index stays are counted under the month of the last service date from that stay.
    - Readmission stays are counted under the month of the last service date from the corresponding index stay.
    - An inpatient stay can be both an index admission and a readmission, but an index admission cannot have more than one readmission.

Appendix 6: Specifications for Maryland's Hospital Acquired Conditions Program

The Maryland Hospital Acquired Conditions Program utilizes a measurement methodology developed by 3M Health Information Systems, which identifies Potentially Preventable Complication (PPCs) for inpatients based on the hospital discharge abstract data set submitted to the HSCRC along with the present on admission (POA) indicator. PPCs are defined as harmful events (e.g. accidental laceration during a procedure) or negative outcomes (e.g. hospital acquired pneumonia) that may result from the process of care and treatment rather than from a natural progression of underlying disease. Below are the specifications in the Model to calculate Maryland Hospital Acquired Conditions hospital achievements.

TOTAL PPC COUNT CALCULATION

1. Run the HSCRC patient level data for the base year and Performance Year with the same PPC grouper version, which provides the following classifications for each PPC:
    a. PPC at risk
    b. PPC assigned
2. Limit the analysis to acute care hospitals
3. Identify PPC cases for all PPCs in the data sets (i.e. PPC Assigned), currently 65.
4. Exclude cases with any of the following conditions since the State excludes these patients from the MHAC program:
    a. Hospice Palliative Care Patients (defined as cases with ICD-9 code = V66.7)
    b. Patients with more than 6 PPCs
5. Total the count of all PPC cases for each year

RATE CALCULATION

6. Identify patients at risk for each PPC
7. Total the count of at risk cases for all PPCs for each year
8. Rate is equal to total PPC cases divided by total at risk for each year

CASEMIX ADJUSTED RATES

9. Calculate base-year observed rates by dividing total PPC cases by total at risk cases for each admission APRDRG SOI category using base year data.
10. Calculate base-year observed PPC rate by dividing statewide total count of PPC cases by total count of at risk cases using base year data.
11. Calculate expected PPC cases in the performance year by multiplying count of at risk cases by base-year observed rate for each admission APRDRG SOI from step 9 and summing for each PPC.
12. Calculate the risk adjustment ratio by dividing total observed PPC counts in the performance year by expected number of PPCs from step 11.
13. Calculate the risk adjusted rate of PPCs in the performance year by multiplying risk adjustment ratio from step 11 by base-year observed PPC rate from step 10.

The following table includes the list of PPCs included based on PPC grouper version 30. If the list and definitions of PPCs change during the Model period, the State will update the list and assess modifications to the measurements and targets needed. Updates to the base year may be

required due to the introduction of ICD-10, or other factors. Updates will be submitted to CMS for review and approval.

PPC #	PPC Description
1	Stroke & Intracranial Hemorrhage
2	Extreme CNS Complications
3	Acute Pulmonary Edema and Respiratory Failure without Ventilation
4	Acute Pulmonary Edema and Respiratory Failure with Ventilation
5	Pneumonia & Other Lung Infections
6	Aspiration Pneumonia
7	Pulmonary Embolism
8	Other Pulmonary Complications
9	Shock
10	Congestive Heart Failure
11	Acute Myocardial Infarction
12	Cardiac Arrythmias & Conduction Disturbances
13	Other Cardiac Complications
14	Ventricular Fibrillation/Cardiac Arrest
15	Peripheral Vascular Complications Except Venous Thrombosis
16	Venous Thrombosis
17	Major Gastrointestinal Complications without Transfusion or Significant Bleeding
18	Major Gastrointestinal Complications with Transfusion or Significant Bleeding
19	Major Liver Complications
20	Other Gastrointestinal Complications without Transfusion or Significant Bleeding
23	GU Complications Except UTI
24	Renal Failure without Dialysis
25	Renal Failure with Dialysis
26	Diabetic Ketoacidosis & Coma
27	Post-Hemorrhagic & Other Acute Anemia with Transfusion
28	In-Hospital Trauma and Fractures
29	Poisonings Except from Anesthesia
31	Decubitus Ulcer
33	Cellulitis
34	Moderate Infectious
35	Septicemia & Severe Infections
36	Acute Mental Health Changes
37	Post-Operative Infection & Deep Wound Disruption Without Procedure
38	Post-Operative Wound Infection & Deep Wound Disruption with Procedure
39	Reopening Surgical Site
40	Post-Operative Hemorrhage & Hematoma without Hemorrhage Control Procedure or I&D Proc
41	Post-Operative Hemorrhage & Hematoma with Hemorrhage Control Procedure or I&D Proc
42	Accidental Puncture/Laceration During Invasive Procedure
44	Other Surgical Complication - Mod

45	Post-procedure Foreign Bodies
47	Encephalopathy
48	Other Complications of Medical Care
49	Iatrogenic Pneumothorax
50	Mechanical Complication of Device, Implant & Graft
51	Gastrointestinal Ostomy Complications
52	Inflammation & Other Complications of Devices, Implants or Grafts Except Vascular Infection
53	Infection, Inflammation & Clotting Complications of Peripheral Vascular Catheters & Infusions
54	Infections due to Central Venous Catheters
56	Obstetrical Hemorrhage with Transfusion
59	Medical & Anesthesia Obstetric Complications
65	Urinary Tract Infection without Catheter
66	Catheter-Related Urinary Tract Infection

Timing

By June 30, 2014, HSCRC will submit the final base year results to CMS for its review. For each Performance Year, HSCRC will submit the final MHAC and PPC reports for the Performance Year no later than June 30 of the following year.

Appendix 7: Maryland Reporting

Maryland will submit to CMS an annual report on June 30 following the end of each Performance Year cataloging its performance with respect to the quality measures described below. Maryland will make available to CMS the Maryland datasets and methodologies used for this evaluation. Additionally, Maryland hospitals will meet the reporting requirements under the Hospital Inpatient Quality Reporting (IQR) and Hospital Outpatient Quality Reporting (OQR) programs. In its annual report, Maryland will include its performance with respect to the IQR and OQR measures.

Maryland Regulated Rates for non-Medicare Payers

Maryland will report on the performance of facilities list in Appendix 1, for which Maryland regulates non-governmental payer rates. Specifically, Maryland will provide the following information:

- Total revenue for these facilities and revenue growth rates
- Volume of services provided at these facilities
- Case mix and level of acuity of service provided at these facilities
- Medicaid spending growth for these facilities

Patient Experience of Care

Maryland will develop a plan to assess improvements in patient experience by monitoring the following:

- Care transition interventions that are designed to improve communication and coordination between providers;
- The number of Medicaid participating physicians per Medicaid enrollee, Medicare participating physicians per Medicare enrollee, and participation of providers in patient centered medical home models, Accountable Care Organizations, and bundled payment models;
- Patient satisfaction and experience for hospitals through Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys for all sites of care for which they are available.

Patient Experience Goals and Measures

Goal	Description of Measure	Data Source	Considerations/ Comments
Increase patient satisfaction-Hospital	HCAHPS: Patient's rating of the hospital HCAHPS: Communication with doctors HCAHPS: Communication with nurses	Survey	(NOTE: Most recent HCAHPS average improvement rate is 3.06%)

Goal	Description of Measure	Data Source	Considerations/ Comments
Increase patient satisfaction- Home Health	Home Health CAHPS: Patient's rating of home health agency Home Health CAHPS: Communication with the home health team	Survey	Home Health Based- This measure will be monitored with the intent to add targets after year 5.
Increase patient satisfaction- Nursing Homes	State-administered survey based on Nursing Home CAHPS: Family members' perceptions of nursing home care	Survey	Nursing Home Based- This measure will be monitored with the intent to add targets after year 5.Maryland will consider transitioning to Nursing Home CAHPS survey instrument during the initial 3 year period of the model.
Increase patient satisfaction- Ambulatory Care	Clinician and Group CAHPS: Patient's perceptions of care provided by a physician in an office.	Survey	Physician Office Based- This measure will be monitored with the intent to add targets after year 5.
Enhance care transitions – patient experience- Hospital	HCAHPS : Three-item care transition measure (CTM-3)	Survey	New HCAHPS measures for 2013; as a new measure, historic data not available
Enhance care transitions – patient experience- Short Stay Nursing Homes	Short Stay Nursing Home Resident's discharge needs met Short Stay Nursing Home Resident's Discharge planning and information about medicines and symptoms	Survey	Short Stay Recently Discharged Nursing Home Resident- This measure will be monitored with the intent to add targets after year 5.
Enhance care transitions – coordination with primary care	Rate of physician follow up after discharge	Claims	Medicare and Medicaid; later state all payer database
Enhance care transitions – coordination with primary care	Discharges with PCP identified	To be developed	
Sustain high physician participation in public programs	Medicaid participating physicians per Medicaid enrollee; Medicare participating physicians per Medicare enrollee	Medicaid/Medicare provider enrollment; Survey	Concerns regarding participating physicians not accepting new patients
Broaden engagement in innovative models of care	Participation of providers in patient centered medical home models, ACOs, bundled payments	Administrative	
Improve process of care – Inpatient	Quality score using process of care measures in AMI, HF, SCIP, PN, CAC	Hospital Inpatient Quality Reporting Program	NOTE: QBR clinical score improvement: +0.82% (2009- 2011 average), +2.4 % in 2011

Goal	Description of Measure	Data Source	Considerations/ Comments
Improve process of care – Outpatient	Quality score using process of care measures in outpatient setting	Hospital Outpatient Quality Reporting Program	Maryland hospitals currently developing processes to collect outpatient process measures with the intent to add targets after year 5.
Reduce high priority hospital complications as these may change from time to time	Potentially Preventable Complications (PPC): PPC24/25: Renal Failure with/without Dialysis PPC5: Pneumonia & Other Lung Infections PPC35: Septicemia & Severe Infections PPC6: Aspiration Pneumonia PPC16: Venous Thrombosis PPC37:Post-Operative Infection & Deep Wound Disruption Without Procedure PPC 7:Pulmonary Embolism PPC31:Decubitus Ulcer PPC54:Infections due to Central Venous Catheters PPC25:Renal Failure with Dialysis PPC38:Post-Operative Wound Infection & Deep Wound Disruption with Procedure PPC 66:Catheter-Related Urinary Tract Infection PPC28:In-Hospital Trauma and Fractures NHSN CLASBI SIR	HSCRC Hospital Inpatient Discharge Abstract	NOTE: Inpatient only NHSN CLABSI SIR represents central line-associated bloodstream infection (CLABSI), measured by the Standardized Infection Ratio (SIR) calculated by dividing the number of observed infections by the projected expected number of infections calculated using CLABSI rates from a standard population during a baseline period.
Reduce readmissions-Home Health	Admission Rates from Home Health Agencies to Acute Inpatient Hospital Unplanned, urgent visits to the Emergency Departments for patients receiving Home Health care	Home Health Compare	This measure will be monitored during the model with the intent to add targets to the second total cost care model to begin after year 5.
Reduce readmissions-Nursing Homes	Readmission rates from nursing home to acute care hospital	HSCRC Hospital Inpatient Discharge Abstract	As several hospitals have nursing home interventions as part of their ARR intervention plans, there should be a reduction in readmissions.
Reduce readmissions-Hospital	Hospital wide all cause 30-day readmissions Readmissions per 1000 residents National Readmissions Reduction Program Measures: Heart Failure Pneumonia Acute Myocardial Infarction Chronic Obstructive Pulmonary Disease Hip/Total Knee Arthoplasty	HSCRC Hospital Inpatient Discharge Abstract; Medicare Claims	HSCRC data is limited to discharges from Maryland hospitals, Medicare data provides access to discharges outside of state NOTE: Inter-hospital Medicare Readmissions: 0.3 percentage points decline in FY2012

Population Health

Maryland has established a State Health Improvement Process[2] with 39 health benchmark measures. Through this process, 17 regional planning councils have developed action plans for improvement.

As key indicators of population health are expected to improve as the Model evolves, Maryland will continually measure population health metrics, including but not limited to hospital admission rates (as well as readmission rates), ED visits, and admissions and ED visits for ambulatory sensitive conditions. Maryland will also measure life expectancy, hospitalizations for ambulatory care sensitive conditions, primary and secondary prevention for cardiovascular disease, and behavioral health emergencies, including racial and ethnic disparities in these measures.

Maryland will consider a range of population health measures developed by quality measurement groups such as the National Committee for Quality Assurance (NCQA) and National Quality Forum (NQF) some of which are being used in numerous initiatives including the CMS Medicare Shared Savings Program and Meaningful Use incentive program. These include:

- Screening Mammography
- Colorectal Cancer Screening
- Persistence of beta-blocker treatment after a heart attack
- Optimal Diabetes Care
- Screening for future fall risk
- Blood Pressure Control
- Million Hearts ABCs (a composite of NQF measures)
- Screening for Clinical Depression and Follow-Up Plan
- Medication reconciliation post-discharge
- Adult influenza immunization: Influenza immunization received
- Pneumonia Vaccination for Patients 65 Years and Older
- Smoking Cessation, Medical assistance: a. Advising Smokers to Quit, b. Discussing Smoking Cessation Medications, c. Discussing Smoking Cessation Strategies
- Annual monitoring for patients on persistent medications

Beginning in June of 2012, HSCRC staff convened the *Hospital Race and Ethnicity Disparities Work Group,* a multi-stakeholder group of individuals working to reduce or eliminate disparities in Maryland healthcare, to guide HSCRC staff efforts and work to analyze the status of hospital patient race and ethnicity data collection and consider how this data may be used in payment incentive programs. Maryland will continue to analyze race and ethnicity data using hospital discharge and quality datasets and will use race and ethnicity data in its quality incentive programs as appropriate.

Finally, advances in computing and connectivity have the potential to improve population health by expanding the reach of knowledge, increasing access to clinical information when and where needed, and assisting patients and providers in managing chronic diseases.

[2] The SHIP website is http://dhmh.maryland.gov/ship/SitePages/Home.aspx

Maryland will monitor encounter data flow through its HIE, CRISP (Maryland's state information exchange).

Population Health Measures

Goal	Description of Measure	Data Source	Measure Specification
Improve life expectancy	SHIP Objective 1*: Increase \life expectancy	Vital Statistics Administration, Department of Health and Mental Hygiene	Standard calculations based on birth and death records.
Reduce the rate of hospitalizations for ambulatory care sensitive conditions	Prevention Quality Indicator (PQI) Composite Measure of Preventable Hospitalization	HSCRC	Preventable hospitalizations per 100,000 population. Will be calculated using AHRQ methodology**. The PQI tracks the number of hospitalizations that occurred for ambulatory care sensitive conditions, conditions for which effective outpatient care can prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. The HSCRC data source includes data for Maryland hospitals only.
Improve cancer control	SHIP Objective 32: Reduce the % of adults who are current smokers	Behavioral Risk Factor Surveillance System (BRFSS)	Numerator is number of persons who reported currently smoking cigarettes some days or every day. Denominator is number of persons.
	SHIP Objective 33: Reduce the % of youth using any kind of tobacco product	Maryland Youth Tobacco Survey	Numerator is number of surveyed adolescents ages 12 through 19 in public schools who report using any kind of tobacco product in the past 12 months. Denominator is number surveyed.
Improve primary prevention of infectious disease	SHIP Objective 24: Increase the % vaccinated annually for seasonal influenza	CDC National Immunization Survey; BRFSS	Coverage estimates are for all persons over 6 months of age.
	SHIP Objective 23: Increase % of children with recommended vaccinations	CDC National Immunization Survey	Numerator is number of children aged 19-35 months old vaccinated under NIS vaccine coverage definitions. Denominator is number of children in this age group surveyed.
	SHIP Objective 20: Reduce new HIV infections among adults and adolescents	MD HIV surveillance system; US Census Bureau; ACS 5 year Census	Rate of new adult and adolescent HIV cases during a calendar year (age 13 or greater) reported to the State of Maryland per 100,000 population.

Goal	Description of Measure	Data Source	Measure Specification
Improve prevention for diabetes and cardiovascular disease	SHIP Objective 27: Reduce diabetes-related emergency department visits	HSCRC	Numerator is number of inpatient and outpatient emergency department visits for which the primary diagnosis was coded as 250.xx. Denominator is the number of persons. HSCRC data is limited to data from Maryland hospitals.
	SHIP Objective 28: Reduce hypertension related emergency department visits	HSCRC	Numerator is number of inpatient and outpatient emergency department visits for which the primary diagnosis was coded as 401.x. Denominator is the number of persons. HSCRC data is limited to data from Maryland hospitals.
	SHIP Objective 31: Reduce the % of children who are considered obese	Maryland Youth Tobacco Survey	Numerator is number of adolescents ages 12 to 19 attending public school who have a Body Mass Index (determined through self-reported height and weight) equal to or above the 95th percentile for age and gender. Denominator is total population surveyed.
	SHIP Objective 30: Increase the % of adults who are at a healthy weight	Behavioral Risk Factor Surveillance System	Number of people with BMI of less than 25kg/m^2. Denominator is population surveyed.
Improve prevention for asthma	SHIP Objective 17: Reduce hospital ED visits from asthma	HSCRC	Numerator is number of inpatient and outpatient emergency department visits for which the primary diagnosis was coded as 493.xx. Denominator is the number of persons. HSCRC data is limited to data from Maryland hospitals.
Promote behavioral health integration in primary care	SHIP Objective 34: Reduce hospital ED visits related to behavioral health	HSCRC	Number of inpatient and outpatient emergency department visits for which the primary or secondary diagnosis was defined as related to behavioral health by the Healthcare Cost and Utilization Project of the Agency for Healthcare Research and Quality. These diagnoses include adjustment disorders, anxiety disorders, attention deficit, conduct or disruptive behavior disorders, disorders usually diagnosed in infancy, childhood, or adolescence, impulse control disorders (not classified elsewhere), mood disorders, personality disorders, schizophrenia and other psychotic disorders, alcohol-related disorders, substance-related disorders, suicide and intentional self-inflicted injury, and miscellaneous mental disorders. HSCRC data is limited to data from Maryland hospitals.
Promote health through safe physical environments	Fall-related death rate	Maryland Vital Statistics Administration	Numerator is deaths with an ICD-10 code of W00-W19, denominator is total population.
Most measures have all been adopted as core measures in Maryland's State Health Improvement Process. Technical specifications for these measures are located at: **http://dhmh.maryland.gov/ship/SitePages/measures.aspx. Each measure is tracked, where possible, by race/ethnicity and gender and by county. Local public-private public health coalitions, which include local hospitals, develop plans to achieve improvements in these measures.* ***The AHRQ PQI* technical specifications are located at			

Goal	Description of Measure	Data Source	Measure Specification
http://www.qualityindicators.ahrq.gov/Modules/PQI_TechSpec.aspx			

AHRQ = Agency for Healthcare Research and Quality
PQI = prevention quality indicators
SHIP = State Health Improvement Process
PQRS = Physician Quality Reporting System
NQF = National Quality Forum

Maryland will report annually the quality and cost measure results for the Quality Based Reimbursement, MHAC and readmissions reduction programs. Maryland will establish the data collection and analysis infrastructure for reporting future quality measures.

Appendix 8: Maryland Monitoring Plan

Maryland will monitor its methods currently used to continuously improve quality and outcomes and will measure and monitor its financial outcomes. Monitoring will be conducted throughout the year. Maryland will provide a summary of its monitoring activities to CMS on June 30 following end of each Performance Year. Maryland will make available to CMS the Maryland datasets, methodologies, and audits used for this evaluation.

- **Patient experience of care**: Maryland will measure patient satisfaction, the effectiveness of care transitions, physician participation in public programs, and complication rates and hospital acquired condition rates. (See Appendix 8 for reporting to CMS).
- **Population Health**: Maryland will measure life expectancy; hospitalizations for ambulatory care sensitive conditions, primary and secondary prevention for cardiovascular disease, and behavioral health emergencies, including racial and ethnic disparities in these measures. (See Appendix 8 for reporting to CMS).
- **Health care expenditures**: Maryland will measure overuse of diagnostic imaging, inpatient and outpatient costs trends, readmission rates and total cost of care for all residents. The state will track expenditures for specific payers, including Medicare, Medicaid, CHIP, and CMS subsidies through the Maryland Health Benefit Exchange.

Health Care Costs

Maryland will integrate frequent and regular monitoring into the Model relying on a number of datasets, data collection processes already established by the HSCRC, Medicare claims and clinical data. To calculate all payer financial success under the Model, Maryland will rely on HSCRC datasets with population numbers provided by Maryland's Department of Planning.[3] Maryland will also complete implementation of a state all-payer database in order to monitor per capita health expenditure growth for inpatient and outpatient services across all payers.

HSCRC Data to Monitor All-Payer Financial Success

Dataset	Financial Monitoring Use	Collection Schedule	Data Lag
Unaudited financial	Rapid revenue trend monitoring,	Monthly	One month from

[3] Financial reports have recently been modified to distinguish between resident and non-resident revenue. The HSCRC will employ patient-level case mix datasets to test reported regulated charge ratios of resident and non-residents and will perform periodic audits the reported data. Maryland cannot capture revenue for care provided to Maryland residents outside the state. Therefore, the all payer numerator differs from the numerator used for the Medicare calculation. Maryland will rely on monthly financial data without adjustments for out-of-state revenue as a proxy. This will provide Maryland the ability to manage the system in something close to real time. These data are a good proxy for monitoring the Medicare growth over time.

data, monthly submissions	trends for out of state patients		end of reporting period
Audited financial data, annual filing	Revenue trend monitoring	Annually	Four months from end of reporting period
Inpatient and outpatient case mix data	Innovation Center monitoring, trends for out of state patients	Quarterly	Two months from end of reporting period
Maryland population (Provided by the Maryland Department of Planning)	Establish Maryland's population; potential for use in population attribution methods	Annually	Projections based on US Census

Maryland will also monitor utilization of certain diagnostic tests and procedures to assess and decrease unnecessary and wasteful practices (i.e., duplicate imaging).

Health Care Costs

Goal	Description of Measure	Data Source	Considerations/ Comments
Reduce overuse of diagnostic testing – imaging	OP-8 : MRI Lumbar Spine for Low Back Pain OP-9: Mammography Follow-up Rates OP-10: Abdomen CT - Use of Contrast Material OP-11:Thorax CT - Use of Contrast Material OP-13: Cardiac Imaging for Preoperative Risk Assessment for Non Cardiac Low Risk Surgery OP-14: Simultaneous Use of Brain Computed Tomography (CT) and Sinus Computed Tomography (CT)	Claims	Medicare (Hospital Compare) and Medicaid; later state all payer database
Control expenditure growth – hospital	Per capita hospital expenditure growth (inpatient and outpatient) for: • All-payer • Medicare • Medicaid/CHIP • Private payer • Medicare/Medicaid Enrollees (Dual Eligible)	HSCRC Hospital Inpatient and Outpatient Discharge Abstract; Medicare and Medicaid enrollment files	For all expenditures, risk adjustment for in and out of state services
Control expenditure growth – all services	Per capita health expenditure growth (inpatient and outpatient) for: • All-payer • Medicare • Medicaid/CHIP • Private payer • Medicare/Medicaid Enrollees (Dual Eligible)	Claims	Medicare and Medicaid; later state all payer database