BPMM For STD Prevention
Summary of Leading Practices for STD Prevention and Gap Analysis – Deliverables 4C, 4D and 6D

Major Process	Future State	Process Gap	Technology Gap
Outreach and Community-Based Services: Conduct education, training, legislative activity, screening and communication within the community and build appropriate partnerships and coalitions to promote healthy behavior, quality care, testing and treatment	• Emphasis on screening and treatment programs • Increased legislative and media activities • Qualitative and quantitative information from partners and projects. Information mapped at the client level (to case information) and on the community level (by demographic) • Analysis of outreach information, through ad-hoc reports, standard reports, GIS and trending capability • Summarized project activities and outcomes for media and legislative activities • Posted information on DOH web sites/ disseminate information via the HAN	• Metrics for measurement of outreach activities • Common data elements with partners to conduct analysis • Staff and expertise to summarize information briefly into main points of success and need for media and legislative campaigns • Legislative and media materials customized for local needs • Prioritization of outreach activities and appropriate resources	• Ability to incorporate external data at the client level (e.g., clinic records), at the community level (e.g., census data) or at the venue level (e.g., jails) • Mapping of data fields between internal and external datasets • Standard and ad-hoc reporting capability • Development of an Intranet or a Health Alert Network (HAN)
Clinical Services: Conduct STD screening, testing and treatment conducted in public health clinics	• Clinical data received directly via interfaces with external clinical/registration systems • Comprehensive STD PAM clinical module • Entry of patient/case data on-line, or through automatic upload • Ability for physicians to track and update their cases through the system and use of investigation data for their clients • Robust information acquired in clinical settings for use in investigation and contact tracing	• Identification of a core set of clinical data to be used in surveillance/investigation • Standardized data elements and definitions • Incentive for local health department clinics to use system (improved patient care, access to information, reports) • Ability to transition clinical settings to on-line reporting (infrastructure, training)	• Development of technology and expertise to build interfaces with external systems • Development of the STD PAM clinical module (clinical pathways, lab results, demographics, risk/behavior info, diagnosis and treatment guidelines, algorithms to identify cases, alerts, messaging between providers and registration/billing)

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Counseling and Partner Treatment: Provide counseling, contact tracing and partner services. Identify potential transmission and prevent additional spread of disease through referral for and provision of testing and treatment	• Cost and benefit analyses of existing and proposed practices • Incorporation of new types client level data (clinical information and outreach data) to guide follow up • Shared information with internal and external partners within the system • Automated prioritization of cases and alerts to staff of out of range and priority cases • Automated identification of cases • Trending, mapping, risk and behavioral information and pathways to guide follow-up • Ability to view and document information during field work	• Ability to transition data entry to local level (infrastructure, training) • Creation of immediately realizable benefits for new users • Ability to analyze data for costs/ benefits evaluation (benchmarks, costs of service) • Identification of interview, counseling and contact tracing elements • Tailored risk reduction message • Verification of Treatment	• Development of pathways, alerts, workflow, GIS, messaging, algorithms for case identification and outbreaks • Development of specifics of contact tracing functionality (epi networks, contact maps, field record forms, interview record forms) • Integration of the STD PAM with external systems and data • Ability to view and update information while off line and synchronize updates with the system
Improving Services by External Providers: Ensure that private providers comply with current recommendations, guidelines, training, and regulatory requirements related to the STD Program	• Access to lists of providers (AMA, MCO, HEDIS) and target partnerships based on local criteria • Increased relationships with partners via trainings, site visits and regular communications • Education and training of clinicians on reporting, screening, risk assessment and treatment • Incentive for providers to use the system (ability to report on line, view cases and run reports, generate letters, access instructions and guidelines, hyperlink to key community partners or generate lists of programs and materials for patients)	• Potential legislation requiring electronic reporting for reportable diseases • Standard benchmarks to help prioritize provider activities • Staff and resources to conduct activities not directly related to disease reporting and investigation • Lists of providers (ob/gyn, NPs, adolescent, HIV/AIDS)	• Ability to view and access case information once it has been entered • Links within the system to clinical information, guidelines • Letter and materials generation function • Intranets or HANs for posting and sending information • Ability to track services with physicians (communications, training, monitoring) • Directory management

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Treatment Assurance: Review case reports and clinical data, and conduct follow-up with providers and patients to ensure appropriate treatment	• Initiation of case by either a lab report or a case report • Automated identification of cases and follow up requirements • Automated/electronic correspondence to providers for follow-up information • Access to appropriate treatment guidelines for providers • Guided data entry based on the disease or patient • Cases pushed to staff for follow-up • Automated prioritization of cases for staff	• Potential legislation requiring providers to report electronically for reportable diseases • Training for clinicians and their staffs on reporting and use of system • Incentives for physicians and their staff (efficiency, patient safety, information) • Full directories of providers that can be updated on an ongoing basis • Development of standard follow-up guidelines • Identification of workflow, routing of cases between staff	• Algorithms for identifying follow-up requirements • Ability to document contact with provider and follow up activities • Integration with clinical information • Messaging and workflow to push cases to staff based follow-up requirements
Other Data Collection: Collect information specifically for research, outbreak investigation, sentinel surveillance or active surveillance	• Collection of disparate information (clinical data, surveys, on-line entry, ER data sets or anecdotal information) • Consistent data field definitions across programs and disease areas • Forms that mimic on-line entry screens • Locally defined fields and collaboratively defined fields for research	• Clear outbreak definitions, which vary by population and demographic • Locally defined 'outbreak' parameters, a level of burden of disease over which an 'outbreak' is occurring • Dedicated resources to conduct surveys, focus groups • Identification of indicators e.g. research or surveillance data requirements	• Ability to collect patient level data without creating an investigation • Defined protocols for the technology applications that can be used for research • Outbreak detection algorithms • Alerts, messaging, pathways to guide entry • Ad-hoc reports • Ability to accommodate population-based data, venue based data • Ability to track meta-data, e.g. associate descriptions/ characteristics with data sources for analysis

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Receipt/Acquisition: Receive and acquire burden of disease data, program operations data, programmatic services data, secondary data and contextual data from various sources takes place in disparate ways, by various staff	• Automated upload of case reports and lab reports • On line reporting via browser • Continued ability to fax, phone or mail case information • Automated/electronic correspondence with providers for follow-up information (treatment) • Guided data entry based on demographic and disease information • Automated checking for completeness, accuracy, based on local definitions • Integration with various other types of quantitative information • Removal of disparate, ad-hoc processes and standardized methods for collecting all types of information	• Standardized data elements and processes across projects and locals • An accountable body of state, local and CDC representatives to create definitions, policies and procedures and an evaluation program implemented to ensure adherence • An ability to adapt and update both data sources and fields • Data sharing and re-release agreements	• Electronic upload from large hospitals/health care providers • Business rules, validity or logic checking • Pathways to guide entry, that can be determined locally • Messaging to prompt completion and prompt for follow-up • Ability to incorporate community and venue based data (census, prevalence) • Ability to post and access qualitative data
Processing and Consolidation: Validate data, compare with existing information and enter/log data into the system	• Transformation of data into standardized format that can be logged onto the system • Automated de-duplication and record merging and preparation of reports of potential duplicates for staff to review and merge • Merged internal and external data • Notification to staff of immediate issues of concern	• Agreement on data elements, so that interfaces can be created and data sets combined • Consistent data elements/definitions for partners, so that files be merged and uploaded appropriately • Defined performance indicators, to facilitate data collection	• Messaging, alerts to decrease the likelihood of incomplete/inaccurate entry and notify staff of issues • Algorithms to automatically identify cases needing follow up and ability to locally modify parameters • Integration with external data sets, qualitative data • Portal/Intranet for storing qualitative data

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Analysis, Access and Dissemination: Allocate cases to DIS, send pre-defined reports to the CDC and make data and information available to staff	• Transformation of surveillance data, clinical services data, program performance data and other data into reports for CDC, summaries and ad hoc reports • Information pushed to recipients for follow up • Automated assignment of cases to appropriate staff and supervisors • Information available via secure portal, or e-mail • Standard and ad-hoc reports that can be run within the system	• Additional training on SAS, and then on the system reports • Changes in staff responsibilities for new tasks, such as assigning cases, centralized follow-up, reports, dissemination (resources, training) • Identification of priorities for dissemination and follow-up (alerts), recipients of information (cases, reports) and ongoing maintenance • Defined workflows for data and information recipients	• Work flow to push reports or case data to staff for program action via messaging (reports) or workflow (cases) • Flexible workflow that can be defined locally • Directories of providers, recipients • Business intelligence that identifies where information should be routed • A HAN/secure intranet portal for posting, e-mailing • Ad-hoc reports based on any field • More extensive pre-defined reports
Program Monitoring: Compare actual program outcomes to planned outcomes, performance measures, and performance through on-going data review	• Assessment of what data is necessary for monitoring and to obtain any missing data and analysis • Trending and analysis via standard reports, ad hoc reports and GIS within the system • Comprehensive analysis via external software (SPSS/SAS) • Identification of national benchmarks (performance measures) and local benchmarks (productivity, outbreaks) • Comparison of outcomes to programmatic goals • Immediate adjustment of small issues or small issues	• Skills and staff to conduct analysis • Knowledge of what type of analysis to conduct and how to use the information and reports • Appropriate benchmarks, both standardized and locally defined • Consistent definitions and benchmarks • Ability to conduct analysis with data available in the system	• More extensive standard reports • Ad hoc reports run within the system • Integration of burden of disease data, programmatic data, outreach data, operations data, etc. • Analysis tools such as GIS, trending and graphics

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Priority Setting: Identify changes required in each program to further health outcomes, create implementation plans for changes, and communicate needs for changes	• Daily, monthly or yearly assessment of priorities, depending on need • Prioritization of all work, not just programmatic activities (operations, technology, staffing, etc.) • Electronic tracking of information to make decisions which supports the human process of identifying needs and monitoring progress • Congruent reports, summaries, trends and external data for comparison • Comparison of outcomes to local goals, CDC goals and to external leading practices • Knowledge and incorporation of resource constraints and cost benefit analysis, including cost versus available resources, level of effort, time for completion, existing tools for re-use and skills assessments	• Standardized data elements to facilitate analysis • Documented guidelines for analysis • Identification of one person within the project area who is accountable for implementation planning • Inclusion of input from local health department staff in iteration and finalization • Standardized programmatic goals, and tools for cost benefits analysis • Defined workflow that links program monitoring, planning and implementation	• Enhanced standard reports • Ad-hoc reports within the system • Additional AVR functionality (trending, GIS, graphics) • Ability to track goals versus outcomes
Implementation: Enact changes to programs identified during priority setting. Alter program goals, methods, administration and staffing as necessary	• Actualization of change plans identified via updated training materials, communications, protocols, data elements, staffing, etc • Ongoing communication and involvement with stakeholders • Formal implementation initiatives, including timelines and an accountable party • Monitoring of implementation	• Resources and training to implement and monitor • Identification of metrics prior to implementation to measure success • Policies for conducting consistent analysis, storing reports and sharing information • Identification of those accountable for implementation and monitoring	• Ability to store and extract case data, aggregate data from other external and internal sources • More extensive standard reports • Ad hoc reports run within the system • Potentially, external project management software

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	activities		