

# Mental Health Resources and the Criminal Justice System: Assessment and Plan for Integration in Charlottesville, Virginia

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**Abstract**—This paper presents an analysis of and recommendations for improving the relationship between the mental health and criminal justice systems in Charlottesville and Albemarle County, Virginia.

The project team used data analysis, detailed process modeling, and stakeholder discussions to identify three major problems in the current system for managing the needs of people with mental illness, also referred to as consumers. First, encounters between consumers and law enforcement or mental health personnel resulted in unnecessary safety risks. Second, the limited resources of both the criminal justice and mental health systems were consumed from ineffective responses to consumers' needs. Third, when an individual with mental illness moved from one agency to another, they often experienced gaps in treatment which caused a crisis situation to develop, requiring police involvement.

To address these problems, the project team recommends that the city and county re-align their existing resources into a collaborative Crisis Intervention System (CIS). The CIS would seek to improve the coordination between agencies in the criminal justice and mental health systems; it would be able to handle both the acute needs of consumers in crisis and minimize the potential for crisis situations to develop by providing long-term stability. In addition to using these systems' limited resources effectively and efficiently, the development of a CIS would enhance the quality of life for the region's consumers and benefit the community as a whole.

This project was conducted by University of Virginia students as an evaluation team for the Crisis Intervention Team (CIT) Taskforce, a diverse group of local representatives from both the mental health and criminal justice systems who are advocates for improving the relationship between the systems.

## I. INTRODUCTION

**I**N 2005, over half of all inmates in United States correctional facilities have had or currently have a mental health

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problem, which is defined as a recent history of hospitalization or symptoms of a mental illness; less than 40% of these inmates received psychiatric treatment prior to their incarceration [1], [2]. This high-maintenance population consumes the limited resources of the criminal justice system when their treatment needs could often be met more appropriately in the community. After an inmate's release, inadequate transitions back to the community can disrupt treatment and increase the likelihood of a crisis situation to develop and possible arrest. For this reason, there is a high re-arrest rate among individuals with mental illness. Trying to reduce the number of mentally ill in prisons and jails has become a major policy issue across the United States.

Studies show that mentally ill inmates have higher rates of substance abuse or dependence, more prior convictions, and more complications after arrest than other inmates [1]. Such complications include more violations of facility rules, victimizations, and injuries than those without mental health problems. In the Charlottesville area, people with mental illness, also referred to as consumers, have a high rate of involvement with the criminal justice system. This is due to the lack of continuous mental healthcare available from the agencies comprising the criminal justice and mental health systems. The Albemarle-Charlottesville Regional Jail and the Charlottesville, Albemarle County, and University of Virginia Police Departments comprise the criminal justice system resources studied by the project team. The key mental health resources analyzed included the University of Virginia Emergency Department, Region Ten Community Services Board, and On Our Own. The coordination of all seven entities is required to provide a continuum of care to consumers and handle crisis situations safely.

Police officers, usually the first responders to a mental health crisis, often lack the training needed to understand mental illness or de-escalate the situation. During encounters between officers and distraught consumers, misunderstandings can result in feelings of disrespect, physical injuries, or death. Since officers are often unable to recognize signs of mental illness or are unaware of the resources available to them, consumers are often arrested on minor charges, resulting in incarceration instead of treatment.

If the officer decides not to arrest because he recognizes behavior indicative of a mental illness, he or she must hold the individual in custody for a psychiatric evaluation, which can take up to eight hours. Long wait times frustrate the officers since they are taken away from what many believe to be their primary responsibility—patrolling the streets. Also, the condition of the person in mental crisis can be exacer-

bated by the chaotic nature of the emergency department waiting room. This situation endangers police officers, hospital staff, the consumer, and other patients.

If a person with mental illness is arrested, they have the option of receiving mental health medications while in jail. When an individual is being released from jail, only informal coordination currently exists between the jail and community mental health resources. Upon release, the consumer is concerned with finding housing, food, and employment, meaning that filling expensive prescriptions is a low priority. Without assistance, most released inmates will stop taking mental health medications and relapse.

While each organization provides great service in its area of expertise, Charlottesville's current system for handling mental health crises is not as effective as it should be; several agencies which care for people with mental illness lack the necessary coordination between one another for success.

This project assesses the current use of mental health and criminal justice systems resources in handling situations involving mental illness. To address the problems in the current system, the team suggests the realignment of existing resources into a Crisis Intervention System (CIS) capable of managing the care of acute crisis situations while also providing a continuum of treatment to consumers. The CIS would also use resources effectively and efficiently through the integration of key agencies. To achieve this goal, the team evaluated the current system to identify problems and then developed alternatives to improve the current system. The final product of this work is a redesigned Crisis Intervention System and a plan for implementation in Charlottesville and Albemarle County.

## II. GOALS AND OBJECTIVES

### A. Goals

The initial goal of the project was to assess the need for a

crisis intervention site in Charlottesville and Albemarle County. Such a site would function as a psychiatric emergency room and be designed to facilitate the completion of mental health evaluations. However, the goal of the team quickly evolved beyond this simple needs assessment. Based on preliminary analysis, the team recognized the importance of addressing a much larger issue: the interactions between the criminal justice and mental health systems. The team's goal then became the focused on the development of a Crisis Intervention System (CIS); a CIS seeks to improve the delivery of mental health services to people in crisis and to coordinate mental health resources with those of the criminal justice system. Through this alignment of resources, the CIS would address the acute symptoms of individuals in psychiatric crisis while also minimizing the chance for crises to develop by providing long-term stability through a continuum of mental health care. Furthermore, the CIS would realign existing services in the most effective and efficient way possible, to maximize the return from limited resources.

### B. Objectives

Five objectives were developed to measure the city and county's achievement of a CIS, shown in Figure 1. Each of these main objectives was then broken down into several measurable sub-objectives.

*Improving agency coordination* consists of improving the transition between agency programs and increasing the awareness of treatment options within other agencies.

*Improve relationship between mental health community and the community at large* consists of increasing the knowledge of available resources, reducing community stigmas through education, and continuously informing the community of CIS developments.

*Improve quality of life for people with mental illness* involves increasing mental health service utilization and access to medications, decreasing substance abuse, improving

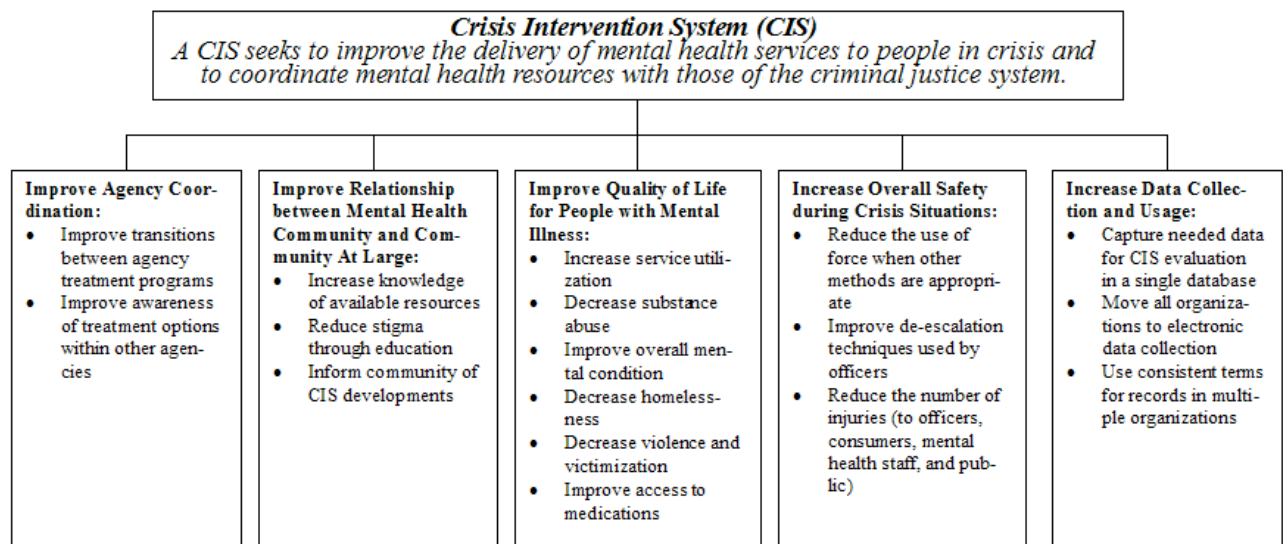


Fig. 1. Crisis Intervention System Objectives. This objective tree shows the 5 key objectives of a CIS, which would measure the success of Charlottesville and Albemarle County's crisis intervention.

overall mental condition, decreasing homelessness, and decreasing violence and victimization.

*Increase overall safety during crisis situations* involves reducing the use of unnecessary force by police officers, improving de-escalation techniques, and reducing the number of injuries incurred by all parties present (police officer(s), consumer, family members, bystanders, etc.).

*Improve data collection and usage* entails the creation of a single database to capture data needed for CIS evaluation, converting all agencies to electronic data collection, use of consistent terms on forms across all agencies, and collection of data necessary for system evaluation.

### III. TECHNICAL APPROACH

#### A. Process Flow Models

The team developed an understanding of how the current system functions by creating process flow models, and then using them as the basis for stakeholder discussions to identify problems in the system. These flow models use decision and action nodes to show how a consumer moves through a single agency or from one agency to another. Models were created to outline current procedures for each of the system agencies, starting from when a police officer arrives on scene to handle a mental health crisis. These models were based on protocols and the experiences of individuals working within each system, including police officers, emergency department doctors, and staff at the regional jail. The process flow models create a visual understanding of the decisions an officer makes during a mental health crisis, and how that affects where the consumer goes. For example, Figure 2 outlines the steps and decisions that occur after a police officer issues an Emergency Custody Order (ECO) and takes the person to the University of Virginia Hospital.

#### B. Interaction Models

While the process flow models provided insight into how a consumer interacts with different organizations, they did not capture how different agencies interacted with one another. Interaction models were created to highlight the relationships between organizations. Each model focused on a single agency and created a visual flow of how this agency interacted with each of the other agencies to serve a consumer in crisis.

The interaction model in Figure 3 diagrams the interactions between the jail and each of the other major organizations in the current system. The solid lines represent relationships between two agencies, such as the flow of services or movement of consumers from one agency to another. The dotted lines represent new relationships formed as a result of the team’s work. Two such changes shown in Figure 3 include On Our Own’s peer-support and recovery education programs at the jail and the community resource card used by police to refer consumers to the area’s mental health resources.

#### C. Data Analysis

In addition to the process flow and interaction models, the project team conducted a thorough analysis of available data.

Emergency Custody Orders (ECOs) and Temporary Detention Orders (TDOs) are orders issued that give law enforcement the authority to take a person with mental illness into custody for a mental health evaluation. Involuntary hospitalization results if the evaluator at Region Ten finds that the individual meets certain criteria. Analysis performed on these data sets examined the relationships between the different police departments in the area and consumer facilities, such as the UVA Hospital, Region Ten, and the Martha Jefferson Hospital.

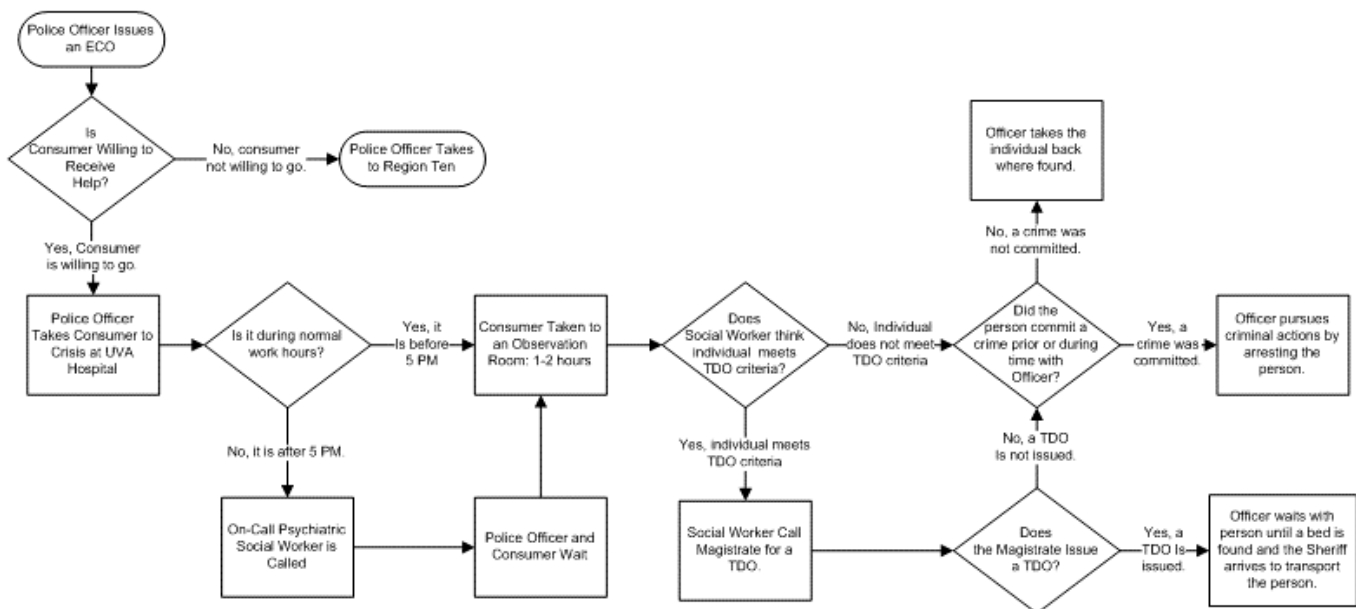


Fig. 2. Police Officer—University of Virginia Emergency Department. This process model outlines the processes that occur once an individual is taken to the University of Virginia Emergency Department to receive a psychiatric evaluation.

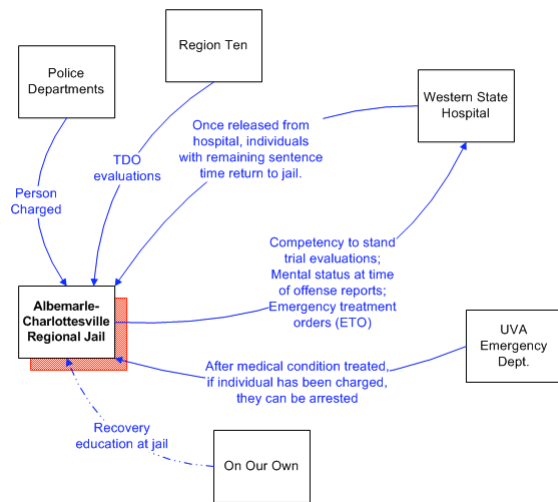


Fig. 3. Interaction Model for the Jail. Interactions between key agencies of the criminal justice and mental health systems were captured by using lines to represent the flow of individuals or services from one agency to another.

The Regional Emergency Communications Center provided data on police officers responses to calls involving mental illness over the past three years. The team looked at officer response times, the number of officers on a case, and the costs associated with the man-hours spent on each case.

The Emergency Department from the UVA Hospital provided data on all psychiatric cases it served in the first two quarters of 2006. This data allowed the team to identify the arrival times of cases to the department, the cost of treatment, and the amount paid to the hospital. This data is valuable in determining the cost of mental health treatment for Charlottesville, as the University Emergency Department is a public institution which must serve patients regardless of their ability to pay for treatment.

The Albemarle-Charlottesville Regional Jail provided two documents for analysis: statistics from the pharmacy and statistics from the jail’s mental health department. The pharmacy documents included the number of prescriptions filled, the number of inmates receiving prescriptions, and the costs of medication. Data from the mental health department supplied the number of evaluations completed, the number of inmates taking psychotropic medication, and the percentage these inmates represented of the total jail population. The analysis of this data determined the amount of money and resources invested by the jail into treating inmates with mental illness.

#### D. Development of Observations through Discussion

In addition to conducting data analysis and modeling the relationships between agencies, the project team met with groups representing each of the system’s diverse stakeholders. Through discussions with these stakeholders, the team came to understand the full complexity of the system and the importance of improving interactions between the criminal justice and mental health systems. Each stakeholder represented an entirely different view of the current system and expressed a distinct vision of how the ideal

system would work. The challenge for the project team was to combine all of these perspectives and needs into a single system that would address all of the major problems identified in the existing system. Hence, the stakeholder discussions played a significant role in developing the team’s observations and improvement recommendations.

Additional observations resulted when the team discovered that data on the current system was lacking or of poor quality. This posed a problem for assessing the current use of resources in Charlottesville and Albemarle County. More importantly, without an accurate analysis of the region’s current resource usage, the success of changes implemented by the city and county would have no starting point from which to gage their progress. While the team analyzed the data that was available, they also recommended what improvements in data collection and usage were needed in order for the system’s progress to be evaluated in the future.

## IV. FINDINGS AND OBSERVATIONS

While each of the agencies provided effective mental health services on their own, the project team discovered that the transition of a consumer from one agency to another left too much room for treatment gaps to occur. Although this was difficult to capture with available data, in discussions with stakeholders based on the process flow and interaction models, the importance of improving these inter-agency transitions was revealed. When gaps in treatment occur, the individual with mental illness is likely to relapse and result in a crisis situation. This represents a major setback in mental health treatment for the consumer and a large expense for the criminal justice and mental health systems.

### A. Interaction between the Jail and Community Mental Health Resources.

On average, 14% of the inmate population of the Albemarle-Charlottesville Regional Jail received psychotropic (mental health) medication. The cost per inmate for these medications was about \$171, which amounted to nearly \$13,000 spent by the jail each month to treat mental illness. As a form of mental health treatment, psychotropic medications are only effective if used consistently. When individuals are released from jail, they receive three days of medications and a one month prescription. However, from stakeholder discussions, the team found that upon their release from jail, finding food, housing, and employment takes precedence over acquiring expensive medications. If their prescription is not filled within the first three days of their release, the individual’s mental illness may relapse. The gap in treatment caused by these situations squanders all of the treatment and money invested by the jail prior to the individual’s release.

### B. Interaction between the Police Departments and Region Ten

Data analysis on the police officer disposition locations indicated that police officers do not frequently take individuals in crisis to Region Ten for a psychiatric evaluation. Only 3%

of cases with reported locations were taken to Region Ten, whereas the UVA Hospital accounts for 30% of all cases. Using the t-test for proportions at a significance level of 0.01, there is a significant difference ( $t$ -value = 23.073,  $p$ -value < 0.001) between the number of cases taken to Region Ten and the UVA Hospital. The UVA Emergency Department being overcrowded could be a result of the lack of coordination between the police departments and Region Ten.

The number of beds available for mental health treatment decreased by 86% from 1955 to 1999, meaning that overcrowded hospitals cannot provide an adequate number of beds to individuals in need [3]. Region Ten facilitates an average of 32 involuntary hospitalizations each month, and an additional 15 voluntary hospitalizations. In some cases, an individual presents a serious risk but cannot be hospitalized because no beds are available. The criteria for an involuntary hospitalization are that the individual is an imminent danger to himself or others or the individual is so seriously mentally ill as to be unable to care for himself. During the 21 month period beginning in January of 2005, in four separate months Region Ten could not find beds for as many as four people in serious need of hospitalization. This endangers both the public and the person with mental illness, and represents a critical problem in the current system.

#### *C. Police Department Costs*

Based on the number of officers per case and the time spent once an officer is dispatched, 9,660 labor hours were spent on cases involving mental illness the last three years. Using the average hourly salary of \$20 for a police officer, this accounts for \$193,000. In 25% of the cases police officers spend more than two and half hours on a case, which amounts to \$128,000 in labor costs. This means that 66% of the mental health salary costs are being spent on only 25% of the cases. It must be noted that the provided data only included cases marked with the mental illness code and is expected to be an under representation of the actual number of cases involving mental illness. The amount of money spent on workman's compensation is also not included in this analysis because the police departments do not record the number of workman's compensation cases that are a result of interactions with people with mental illness.

#### *D. University of Virginia Emergency Department*

From discussions with stakeholders, the project team found that the Emergency Department (ED) is hectic, loud, and crowded, which can trigger an individual with mental illness to become agitated and cause a disturbance. Because the facility was not built with these specific episodes in mind, hospital equipment is accessible and can be thrown or used in a potentially violent way, which puts the consumer, police officers, hospital personnel, and other patients at risk.

Not only does the ED present serious safety risks, but the long wait times frustrate police officers because they are kept off their patrol until the consumer's mental health evaluation is complete. In addition to safety concerns and officer wait times, the ED must also handle the problem of

losing money on most psychiatric cases. Since the University's hospital is public, the ED must provide treatment to patients regardless of their ability to pay. Data analysis shows that the hospital loses an average of \$83 per psychiatric case since 34% of psychiatric patients have no insurance.

## V. RECOMMENDATIONS

The project team's strongest recommendation to the city and county is the re-alignment of existing mental health agencies and the criminal justice system to form a Crisis Intervention System. The objectives of the CIS provide clear guidance for the direction in which the region must move to improve safety, use resources effectively, and enhance the delivery of treatment to consumers.

The team also identified specific areas upon which the CIT Taskforce should focus their efforts in the immediate future. The first area was in improving the transition back to the community of inmates with mental illness upon their release from jail. The remainder of the team's recommendations focuses on ways to improve data collection in the region. Not only is such data needed to complete the evaluation of the current system, but also so that the impact of the CIT Taskforce's changes can be evaluated in the future.

#### *A. Jail and Community Mental Health Resources*

To prevent wasting the costly mental health services provided to inmates by the jail, the transition after the inmates' release back to the community has to be improved. The team recommends the creation of two liaison partnerships to aid the consumer in this transition. The first liaison would be created at On Our Own and the second at Region Ten, both community mental health resources. As an individual's release date approaches, the jail's mental health staff will meet with the inmate to discuss ways to continue treatment once released and explain how the liaisons can help. If the individual accepts the help of the liaisons, then the jail's mental health staff will notify each liaison of the inmate's upcoming release. Upon release, the On Our Own liaison will focus on helping the individual to obtain medication and navigate the community resources available to find housing, food, and employment. Meanwhile, the Region Ten liaison will be responsible for helping the consumer to access Region Ten's programs and get new prescriptions as quickly as possible.

Although specific names cannot be tracked between the jail system and the community mental health resources, data can be collected to determine the utilization of these programs upon release. If the jail collects data on the number of individuals that say they will meet with Region Ten and Region Ten compiles data on the number of individuals that are seen upon release from jail, then the two agencies can compare these numbers to indicate the number of individuals not continuing their mental health treatment. As the liaison program improves, the team expects consumers to spend more time in the community with fewer crises. A decrease in the number of re-arrests of consumers who used the program or an increase in the amount of time between release and re-

arrest would both indicate the success of the improved transition.

#### B. Data Collection Needs for Police Departments

In 24% of cases involving mental illness, the available data had no recorded end location, limiting the benefits of the data analysis. The team recommends that all three police departments establish protocols outlining the exact way for disposition locations to be entered.

First, it should be required for all cases that are closed to include the location, which would eliminate the problem of having 24% of the location data missing. Second, a uniform location coding system should be imposed that will limit the disposition categories to six locations—Arrest, UVA Hospital ED, Region Ten, Martha Jefferson Hospital, Settled on Street, and Other. A uniform coding system would allow for better, more robust analysis since the number of assumptions would be reduced. Lastly, after an ECO is issued, the outcome of the psychiatric evaluation should be recorded, which will indicate if the individual was released or if the individual was voluntarily or involuntarily hospitalized.

Once data is collected using these protocols, the project team recommends that additional analysis be completed in order to gain a better, more accurate insight of the disposition locations.

#### C. University of Virginia Emergency Department

To ease the impact on the ED of serving psychiatric clients while operating well above capacity, the police departments must improve their use of Region Ten's services. The lack of police officer awareness of community resources was revealed during discussions with stakeholders and represents a simple starting point for improvements. The ED can contribute to the evaluation of the system as a whole by tracking the wait times for its psychiatric cases. This will provide data from which to gauge the impact of changes implemented to decrease officer and consumer wait times.

## VI. CONCLUSION

The project team assessed the current use of resources in response to mental illness by the criminal justice and mental health systems in the Charlottesville area. Three problems identified in the current system were unnecessary safety risks, the over-consumption of limited resources by mental health situations, and gaps in treatment which led consumers to relapse. To address these problems, the team recommends the city and county realign existing resources into a Crisis Intervention System (CIS) capable of managing the care of acute crisis situations while also providing a continuum of treatment to consumers. The CIS would also use resources effectively and efficiently through the integration of key agencies. Uniform and electronic data collection is a key component of an effective CIS. Without proper data collection, evaluation of the system cannot be completed.

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