

# **ANNUAL REPORT**

**2012**

# **MEDICAL BUREAU OF ROAD SAFETY**

## Director's Report

I am pleased to write this introduction to the Medical Bureau of Road Safety's Annual Report for 2012. The report has clearly set out a summary of the activities and performance of the Bureau and its essential role within the Road Safety Strategy.

2012 represented the first year of the new lower alcohol limits for intoxicated drivers and the administrative penalty points.

The Bureau had responsibilities in the Road Safety Strategy 2007 – 2012 and had a lead for two actions. It was co-lead body for one and support agency for a further 9 actions out of the total of 126. The Bureau is pleased to report that these actions have now been completed and that it has been one of the contributing Agencies in achieving a decrease in road traffic crash fatalities and serious injuries.

In 2012, at the request of the Minister for Transport Tourism and Sport, the Bureau undertook a major research in the area of drugs and driving. This resulted in a substantial report on roadside drug testing and equipment and related matters published in September 2012 at a launch attended by the Minister. This report has set out the map for the coming years for the further development of roadside chemical testing for drugs and ensures that the Bureau and, by affiliation, the School of Medicine at UCD maintains its position as one of the international leaders in the area of forensic analyses and research in intoxicated driving.

Since the establishment of the Bureau, not only have there been landmark achievements and improvements and developments but all of this has continued on what has sometimes euphemistically been referred to as the "day to day work" of the Bureau carried out by a dedicated, skilled and energetic staff who are staff of University College Dublin assigned to the functions of the Bureau.

The ongoing, positive and collaborative relationship between the Bureau and University College Dublin has been one of the pillars of achievement in the long history of the Bureau. Long may this symbiotic relationship continue in its fusion of academic, forensic and road safety services to the public good and well-being.

***Professor Denis A. Cusack,  
Director.***

## Mission

The Mission of the Medical Bureau of Road Safety is to provide a high quality national forensic service in alcohol/drug (intoxicant) detection in support of the effective operation of the road traffic legislation.

## Functions of the Medical Bureau of Road Safety

The responsibility for chemical testing of intoxicants in driving in Ireland rests with the Medical Bureau of Road Safety, which is a corporate body established in November 1968 by the Minister for Local Government under Part V of the Road Traffic Act, 1968. The Minister's title was altered to Minister for the Environment & Local Government 22<sup>nd</sup> July 1997. In June 2002 the Medical Bureau of Road Safety came under the aegis of the Minister for Transport under the Transfer of Departmental Administration and Ministerial Functions Order 2002.

The functions of the Bureau are laid down in the Road Traffic Acts 1968 –2010 and their regulations and they include:

- The receipt and analysis for intoxicants of specimens of blood and urine forwarded to the Bureau.
- The issue of certificates of analysis.
- The provision of equipment for the taking or provision of specimens of blood and urine.
- Approval, supply and testing of equipment or apparatus for indicating the presence of alcohol in the breath.
- Approval, supply and testing of equipment or apparatus for determining the concentration of alcohol in the breath.
- Research on drinking and drugs in relation to driving, including the methods of determining the amount of alcohol or drugs in a person's body and the epidemiology of driving under the influence of intoxicants.

When the Bureau was established in 1968 it commenced operating for Roadside Alcohol Testing, Blood and Urine Alcohol Analysis, the Issue of Certificates and provision of Equipment for the taking of specimens (Kits). Since then there have been several legislative changes such as the introduction evidential breath alcohol testing, and driving under the influence of drugs (DUID), specimen provided in hospitals, specimens taken from drivers involved in collisions and mandatory alcohol testing. The Bureau has had to expand and develop all aspects of its work while focussing on its legal responsibilities as set out in the Road Traffic Acts (RTA) and in accordance with the



Government's Road Safety Strategy. Currently the Bureau has several programmes and services in operation and these are: Blood and Urine Alcohol Analysis; Breath Alcohol Analysis; Blood and Urine Drug Analysis; Research – Driving under the influence of Intoxicants; Professional Expert Witness; Corporate/Financial and Quality Assurance.

The Director is responsible for the day to day running of the Bureau. The Chief Analyst, Ms. P. Leavy is responsible for the day to day running of the laboratories and their programmes and the Senior Administrator, Ms. T. Clarke is responsible for the Corporate /Financial programme and for overall administration within the Bureau. Each programme has a programme manager who is a Principal Analyst. The Bureau has also appointed a Quality Manager. (see organisational Chart).

The Bureau operates in and is dependent on a knowledge based environment and has always strived to keep up to date with technology and use the best methods of analysis. It has kept abreast of innovation in instrumentation both in the field of alcohol and drug detection, issuing suitable instruments for evidential breath testing in selected Garda Stations and suitable devices for roadside breath alcohol testing.

Since the establishment of the Bureau it has built up a reputation of the highest forensic integrity and has been able to impart over forty years of knowledge and experience to its staff, clients, and other relevant parties by means of education, training and advices. One of the major contributing factors to the operation of the Bureau is the skilled members of staff employed in the Bureau.

The Bureau provides a service to, the Department of Transport, Tourism and Sport, the Courts, the Garda Síochána, both defence and prosecution lawyers and the public.



## **Significant Issues during 2012**

### ***Lower Drink Driving Limit***

2012 was the first full year of the introduction of the new alcohol limits under the 2010 Road Traffic Act.

### ***Quality Assurance***

ISO 17025 accreditation was maintained in 2012 in the following areas:

- Blood and Urine Analysis
- Evidential Breath Testing
- Preliminary Breath Testing

And it was expanded in the Drug Analysis area.

### ***Road Safety Strategy 2007 – 2012***

Completion of areas of responsibility within the Government's Road Safety Strategy 2007 – 2012.

### ***GC Alcohol Analysis***

The total number of blood and urine specimens forwarded for analysis increased by 12% in 2012.

### ***Drug Analysis***

The number of specimens analysed for the presence of drug or drugs increased by 21% in 2012.

### ***Roadside Drug Testing Research Report***

MBRS published a report on roadside drug testing and equipment and related matters in September 2012 at a launch attended by the Minister for Transport, Tourism and Sport.

### ***Preliminary Breath Alcohol Testing***

The Bureau continued to support in excess of 1,000 Draeger 6510 devices provided to the Gardai throughout 2012.

### ***Evidential Breath Alcohol Testing***

The Bureau continued to support the new generation of instruments in the Garda Stations nationwide and provided new training courses for Operators and Supervisors.

### ***Specimen Kits Regeneration***

The Bureau regenerated 8,622 kits.

### ***New Bureau Website***

The Bureau successfully launched its new website in early 2012.

## **Public Service Reform Plan**

A critical review of the Bureau was carried out in 2012 under the measures set out in the Public Service Reform Plan in the context of rationalization of State Agencies. Following detailed submissions and the recommendations of this critical review led by the Department of Public Expenditure and Reform, the Government decided not to proceed with the considered merger of the Bureau with other State Laboratories (the State Laboratory and the Forensic Science Laboratory).

## **Specimens Received for Analysis**

In 2012 a total of 8,913 blood, urine and breath specimens were analysed for alcohol concentration. There was an increase in the number of blood and urine specimens analysed during 2012. Including breath specimens numbers there was an overall decrease of 11.5% on the total number of specimens analysed during 2011. 1,484 were analysed for the presence of drugs and this represents an increase of 21% on 2011.

**Table 1**

### **Total Number of Specimens Analysed within Programmes**

<b>Programme</b>	<b>2012</b>	<b>2011</b>
<b>Alcohol Blood &amp; Urine</b>	<b>4,029</b>	<b>3,598</b>
<b>Toxicology Blood &amp; Urine</b>	<b>1,484</b>	<b>1,180</b>
<b>Evidential Breath Testing</b>	<b>4,884</b>	<b>6,474</b>

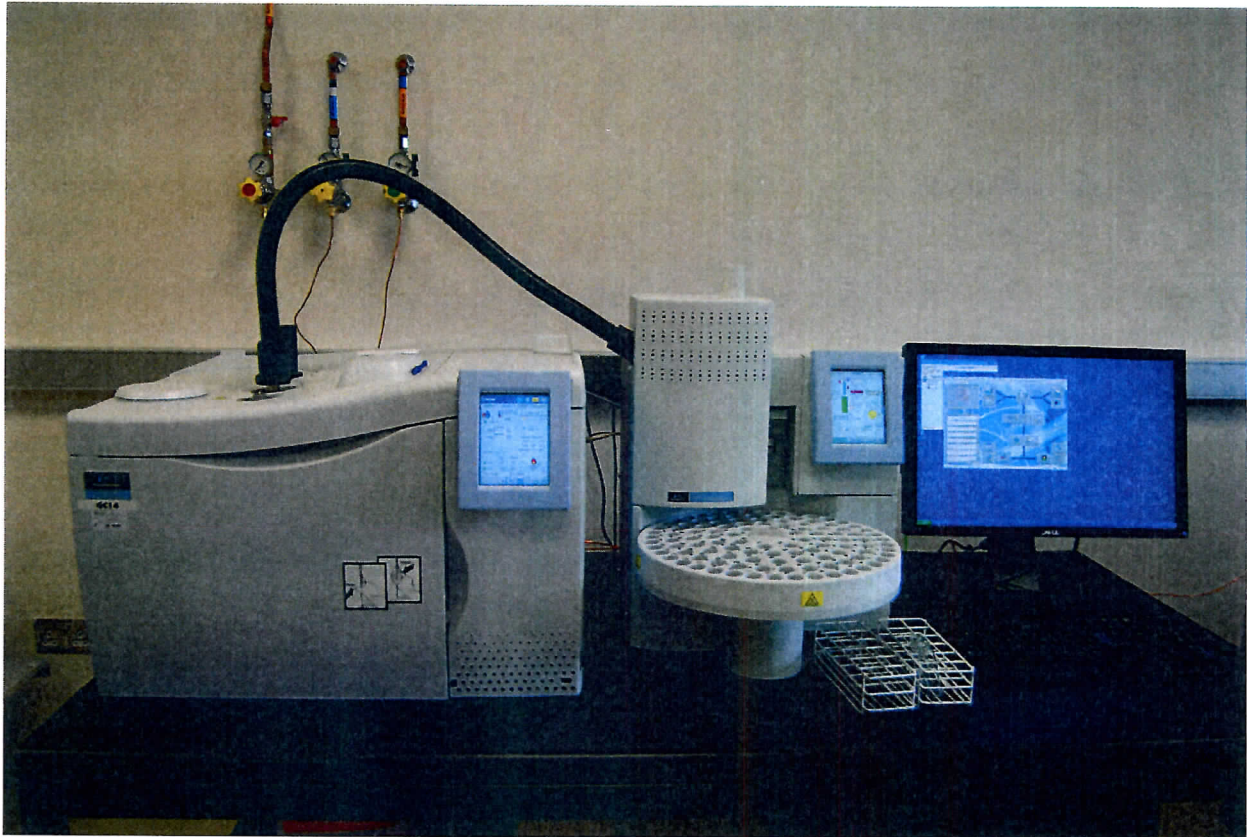
## **Blood and Urine Alcohol Programme**

This section is headed by the Principal Analyst, Ms. H. Kearns. The main functions of this programme are:

- The receipt and analysis of specimens of blood and urine forwarded to the Bureau and the issue on such analyses
- The determination, in respect of such specimens of the concentration of alcohol in the blood and urine
- The issue of certificates of analysis
- The provision of equipment (Kits) for the taking of such specimens
- The testing of spurious specimens



- Provision of expert assistance to the Courts and the DTTAS
- Collection and analysis of data in relation to alcohol tests.



### ***Provision of Blood and Urine kits***

The Bureau prepares blood and urine kits for issue to the Gardai for the purpose of specimen collection. With the introduction of the 2010 RTA in October 2011, a separate kit strategy was devised and new specimen kits were prepared and issued and the kits that had been prepared for the 1994 RTA and issued to Gardai were recalled. With the co-operation of An Garda Síochána central stores, the recalled specimens were forwarded to the Bureau in early 2012. A system of regeneration of the 1994 kits which had been set up in 2011 to convert the 1994 kits prepared but not already issued by the Bureau was continued and the Bureau regenerated a total of 8622 kits in 2012. Large savings were made through this process.

### ***Blood and Urine Alcohol Analysis***

Blood and urine specimens are analysed using Headspace Gas Chromatography with Flame Ionisation Detection (HSGC-FID). Each specimen is analysed at least twice by two different scientists using two different HSGC-FID systems. The results of analyses must concur before issue of a Certificate of Analysis.



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A total of 4,174 blood and urine specimens were received for analysis during 2012. Analyses were carried out and certificates were issued in 4,029 of these cases. In 145 (3.4%) cases certificates were not issued either because of some defect in the specimen or in the documentation accompanying it. The number of blood and urine specimens received in 2012 shows an increase of 12% on the number received during 2011.

### ***Number of Specimens Provided in Hospitals***

In 2012 there were 467 specimens provided in hospitals, this represents an increase of 56.7% on 2011. 30.2% of these had alcohol concentrations in excess of 150mg/100ml blood or 200mg/100ml urine while 14.1% were in excess of 200mg/100ml blood or 267mg/100ml urine.

This increase may be as a direct result of the introduction of the 2011 RTA whereby specimens are to be taken from injured drivers transferred to hospitals following road traffic collisions. 2012 is the first year of full implementation of the 2011 RTA.

### ***Mean Alcohol Level in Blood and Urine***

The mean alcohol level in blood was 123mg/100ml and urine was 141mg/100ml.

### ***Analysis of Time***

Of the total number of blood and urine specimens received 68.2% were provided between the hours of 9.00 p.m. and 6.00 a.m., 14.1% between 4.00 p.m. and 9.00 p.m., and the remaining 17.7% between 6.00 a.m. and 4.00 p.m. This follows a similar pattern to 2012 and 2011.

### ***Twice Over the Limit of 50mg/100ml (Blood) or 67mg/100ml (Urine)***

During 2012 there were 2,275 specimens certified which were twice or more over these limits. This figure represents 56.5% of the total number of specimens certified.

### ***Gender in Blood and Urine Specimens***

With the introduction of the 2010 RTA provision was made for increasing the knowledge profile of the drink or drugged driver. 2012 is the first full year in which the Bureau can analyse the data.

**Table 2**  
**GENDER OF SPECIMENS – Blood and Urine Alcohol Analysis**

<b>Gender</b>	<b>2012</b>	
<b>Male</b>	<b>3,436</b>	<b>82.3%</b>
<b>Female</b>	<b>661</b>	<b>15.9%</b>
<b>Not Stated</b>	<b>77</b>	<b>1.8%</b>

**Table 3**  
**Age Profile of Specimens - Blood and Urine Alcohol Analysis**

<b>Age Profile</b>	<b>2012</b>	
<b>≤ 24</b>	<b>1,068</b>	<b>25.6%</b>
<b>25 – 44</b>	<b>2,039</b>	<b>48.9%</b>
<b>45 – 54</b>	<b>488</b>	<b>11.7%</b>
<b>≥55</b>	<b>527</b>	<b>12.6%</b>
<b>Not Stated</b>	<b>52</b>	<b>1.2%</b>

**TABLE 4**  
**CERTIFIED BLOOD ALCOHOL LEVEL –COMPARISON WITH PREVIOUS YEAR**

<b>Mg. of Alcohol per 100ml of Blood</b>	<b>2012</b>	<b>*2011 Jan – Oct</b>	<b>*2011 Nov - Dec</b>
<b>0 – 20</b>	<b>494</b>		<b>73</b>
<b>21 – 50</b>	<b>131</b>		<b>28</b>
<b>51 – 80</b>	<b>165</b>		<b>32</b>
<b>0 - 80</b>		<b>462</b>	
<b>81 - 100</b>	<b>126</b>	<b>125</b>	<b>16</b>
<b>101 - 150</b>	<b>418</b>	<b>355</b>	<b>72</b>
<b>151 - 200</b>	<b>462</b>	<b>342</b>	<b>105</b>
<b>201 &amp; Over</b>	<b>523</b>	<b>375</b>	<b>107</b>

**\*In 2011 of the total 2,092 blood specimens analysed 563 (26.9%) were under the limit and 1,529 (73.1%) were over the limit (combined figures)**

**In 2012 of the total 2,319 blood specimens analysed 625 (27.0%) were under the limit and 1,694 (73.0%) were over the limit (combined figures)**



**TABLE 5**  
**CERTIFIED URINE ALCOHOL LEVEL – COMPARISON WITH PREVIOUS YEAR**

<b>Mg. of Alcohol per 100ml of Urine</b>	<b>2012</b>	<b>*2011 Jan – Oct</b>	<b>*2011 Nov - Dec</b>
<b>0 – 27</b>	<b>412</b>		<b>67</b>
<b>28 – 67</b>	<b>123</b>		<b>31</b>
<b>68 - 107</b>	<b>159</b>		<b>37</b>
<b>0 - 107</b>		<b>498</b>	
<b>108 – 135</b>	<b>144</b>	<b>84</b>	<b>21</b>
<b>136 - 200</b>	<b>319</b>	<b>228</b>	<b>61</b>
<b>201 – 267</b>	<b>304</b>	<b>230</b>	<b>76</b>
<b>268 &amp; Over</b>	<b>249</b>	<b>139</b>	<b>34</b>

**\*In 2011 of the total 1,506 urine specimens analysed 596 (39.6%) were under the limit and 910 (60.4%) were over the limit (combined figures)**

**In 2012 of the total 1,710 urine specimens analysed 535 (31.3%) were under the limit and 1,175 (68.7%) were over the limit (combined figures)**

## ***Blood and Urine Drug Programme***

This programme is headed by Principal Analyst, Dr. R. Maguire. The main functions of this programme are:

- The determination, in respect of such specimens of the presence (if any) of a drug or drugs in the blood or urine
- The issue of certificates of analysis
- Provision of expert assistance to the Courts and DTTAS
- Collection and analysis of data in relation to toxicology tests
- Roadside drug testing



### ***Preliminary Analysis***

The Bureau analyses all blood and urine specimens, found under a limit for alcohol, for the presence of seven different classes of drug or drugs. The gardai can also request drug analyses on specimens with alcohol levels above this limit and also for specimens where an EBT statement for breath alcohol content has already been issued. The number of 2012 specimens analysed for the presence of drug or drugs was 1,484. This represents an increase of 21% on specimens analysed during 2011.



The MBRS continued to test specimens below the limit of 80mg/100ml in blood and 107mg/100ml in urine. 1,477 fell into this category and 4 were above this and were subsequently tested following a requests made by An Garda Síochána. Specimens that had been tested for alcohol using EBT were submitted directly for drug testing on 3 occasions in 2012.

The preliminary test involved an immunoassay which is a test that can detect the presence of a drug in a biological fluid through the use of specific antibodies. This is achieved in the Bureau by analysts through the use of commercially available kits.

Work commenced in 2012 on a new preliminary drug test which will broaden the type and number of impairing drugs for which the MBRS can test.



### ***Confirmatory Analysis***

The Bureau carried out confirmatory testing for the presence of Cannabinoids in blood and urine specimens and for the presence of the Benzodiazepine drug class in urine specimens at the Bureau's premises in UCD.

The Bureau uses either Gas Chromatography with Mass Spectrometry or Liquid Chromatography with Tandem Mass Spectrometry in its confirmatory analysis of drugs.



These techniques allow the unequivocal determination of drugs in biological fluids. Whilst the Bureau conducts the majority of the confirmatory analysis at the UCD campus (74%) it has also arranged that a portion of the testing is carried out by the LGC (26%) in the UK. The following table outlines the number and type of confirmatory tests conducted at the Bureau premises in UCD and the number and type of test conducted by the LGC in the UK.

**Table 6**  
**Summary of confirmatory Testing**

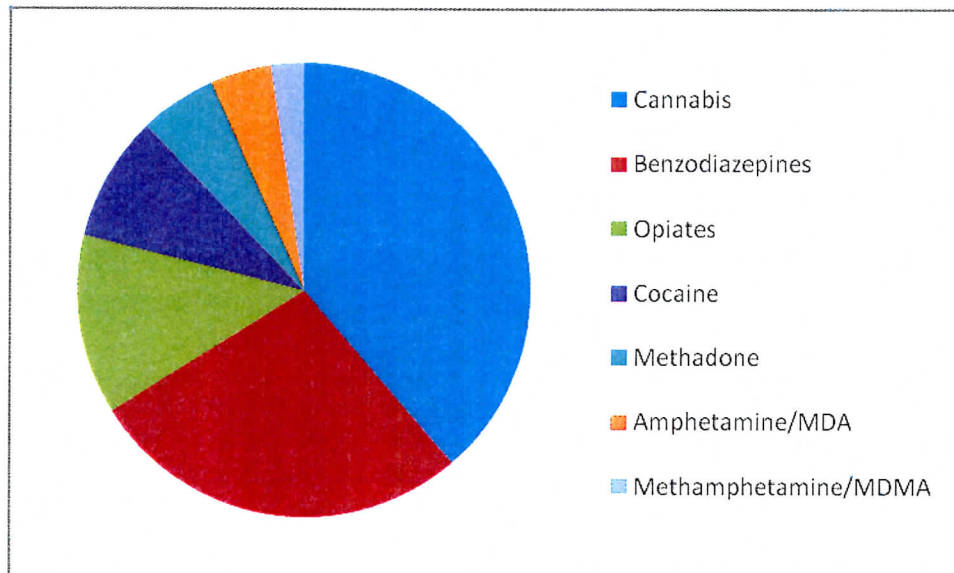
<b>Drug Class</b>	<b>No. of tests</b>	<b>No. of Analytes</b>	<b>Conducted</b>	<b>%</b>
<b>Cannabis</b>	<b>512</b>	<b>2</b>	<b>MBRS</b>	<b>61</b>
<b>Benzodiazepines Urine</b>	<b>110</b>	<b>27</b>	<b>MBRS</b>	<b>13</b>
<b>Benzodiazepines Blood</b>	<b>71</b>	<b>25</b>	<b>LGC</b>	<b>9</b>
<b>Opiates</b>	<b>66</b>	<b>4</b>	<b>LGC</b>	<b>8</b>
<b>Cocaine</b>	<b>29</b>	<b>3</b>	<b>LGC</b>	<b>3</b>
<b>Methadone</b>	<b>13</b>	<b>2</b>	<b>LGC</b>	<b>2</b>
<b>Amphetamine</b>	<b>18</b>	<b>2</b>	<b>LGC</b>	<b>2</b>
<b>Methamphetamine</b>	<b>15</b>	<b>2</b>	<b>LGC</b>	<b>2</b>
<b>Total</b>	<b>834</b>	<b>42</b>	<b>n/a</b>	<b>100</b>

As can be seen the majority of outsourced test involved benzodiazepines in blood and significant progress was made in the development of a method at the Bureau at the UCD campus in 2012.

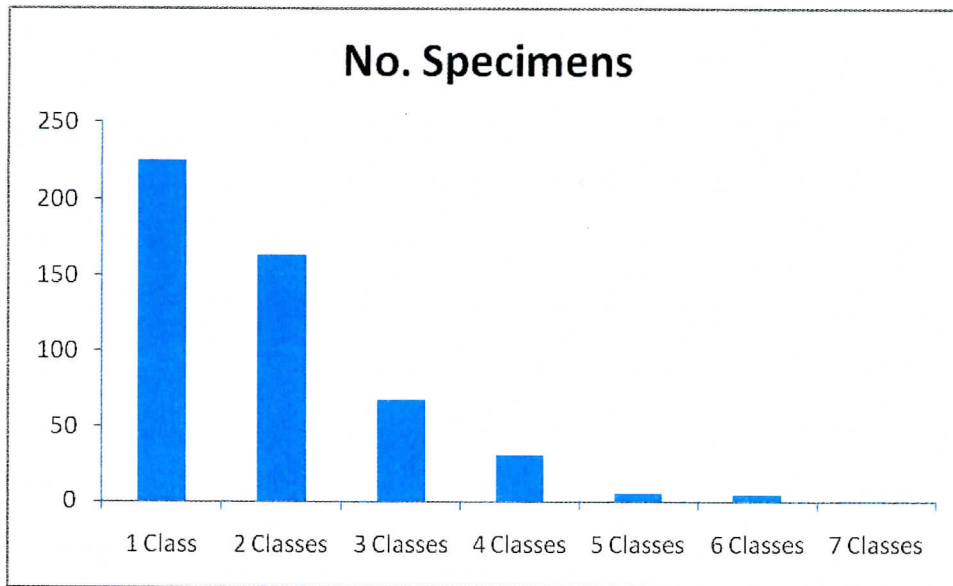
### ***Drug Analysis Results***

Of the 1,484 specimens tested for the presence of drugs 836 or 56% were positive for at least 1 drug class and 648 or 44% were not found to contain any of the 7 classes of drug that the MBRS can detect.

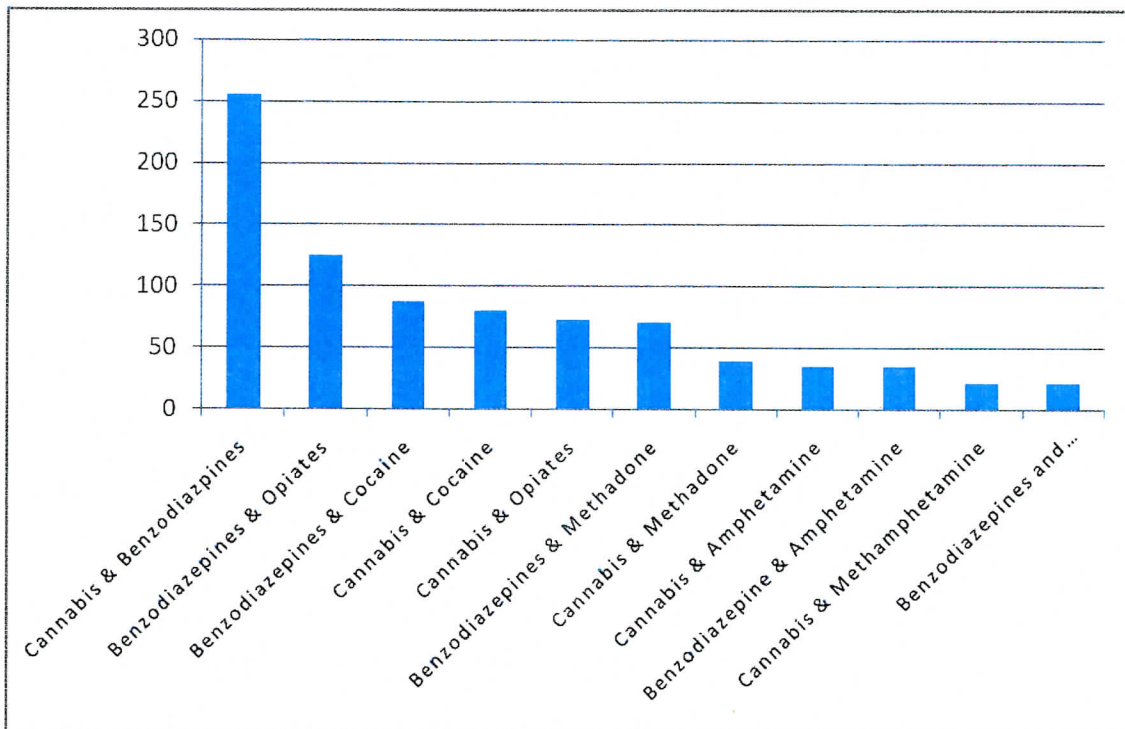
The results where drugs were detected by the preliminary drug test are shown in the chart below. As can be seen Cannabis is the most prevalent followed by Benzodiazepines as previously reported [1, 2].



Detection of multiple impairing drugs in the same specimen taken from drivers, which was previously reported [1], was also observed based on preliminary drug analysis data. In all, 75% of specimens submitted for preliminary drug testing were positive for 2 or more drug classes. The chart below highlights the extent of this problem.

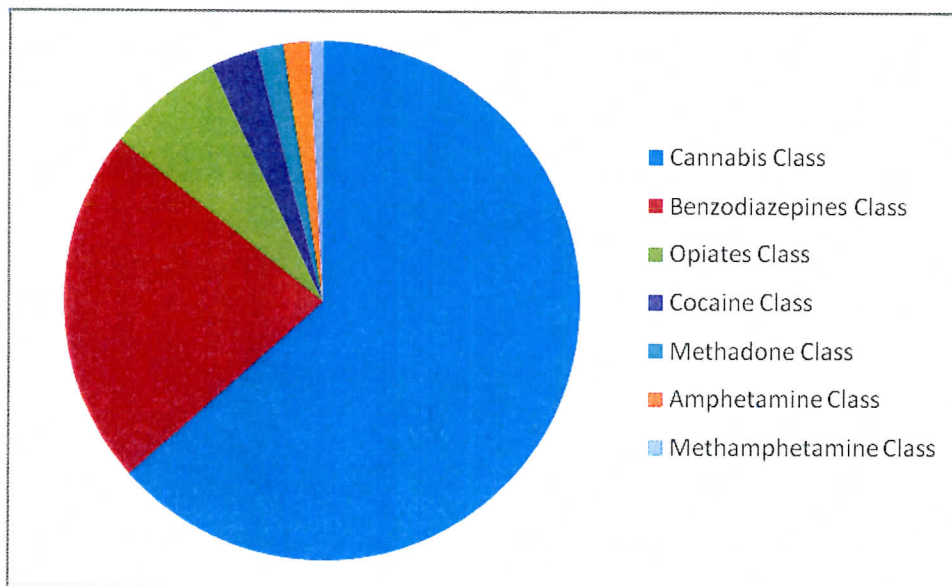


The most commonly encountered combinations are charted below in order.



In the case of each specimen, 1 drug class was selected for confirmation and the chart below shows the distribution of the drug classes detected. Again the main drugs detected are Cannabis and Benzodiazepines.





**Research**

Drugs and driving (DUID) continues to be an area of concern to the Government especially with regard to enforcement. The whole area of roadside drug screening will be a challenge for the Bureau.

Due to the changing nature of drug misuse there is an ongoing need to monitor the drugs being misused by drivers. The MBRS is actively developing new methods which are aimed at increasing the type and number of impairing drugs that can be detected and also improving existing methods in order to ensure that methods keep pace with advances in drug detection.

**References**

1. Cusack, D.A., et al., *Driving Under The Influence of Drugs in Ireland: Results of a Nationwide Survey 2000-2001, 2003*, MBRS, UCD p. 1-25.
2. Cusack, D.A., C.P. Leavy, and R. Maguire, *Report on Roadside Drug Testing and Equipment and Related Matters, 2012*, Medical Bureau of Road Safety.

## ***Breath Alcohol Analysis Programme***

This programme is headed by Principal Analyst, Mr. D. Reynolds. The main functions associated with this programme are:

- The approval, supply and testing of apparatus for indicating the presence of alcohol in the breath (roadside breath screening devices)
- The approval, supply and testing of apparatus for determining the concentration of alcohol in the breath (evidential breath testing instruments)
- Provision of expert assistance to the Courts and DTTAS.
- Provision of training courses for EvidenzerIRL Operators and Supervisors.
- Collection and analysis of data in relation to evidential breath alcohol tests.



### ***Roadside Breath Alcohol Testing***

The Bureau continued to support the Draeger 6510 electronic devices issued to an Garda Síochána in 379 Garda Stations.





### ***Evidential Breath Alcohol Testing***

Since the introduction of evidential breath testing in 1999 the Bureau has approved, supplied, maintained and tested sixty four instruments in Garda Stations nationwide. In 1999, Intoxilyzer 6000IRL instruments were installed and following the change in the alcohol limit in 2011 these instruments were replaced with a new generation of instruments - the EvidenzerIRL

The Bureau continued to support the sixty four EvidenzerIRL instruments and planned for the roll out of an additional twenty two EvidenzerIRL instruments in 2013.

### ***Training***

During 2012 two Garda Instructors were appointed to liaise with the Bureau in order to assist in delivering the training course for Operators and Supervisors of the EvidenzerIRL. This is a one and a half day training course which was devised to train Garda Operators and Supervisors in the use of the EvidenzerIRL instrument.

The following training courses were held during 2012:

- Four Operator Training Courses (73 Operators)
- Four Supervisor Training Courses (20 Supervisors)



**Table 7**  
**CERTIFIED BREATH ALCOHOL LEVEL –COMPARISON WITH PREVIOUS YEAR**

<b>µg. of Alcohol per 100ml of Breath</b>	<b>2012</b>	<b>*2011 Jan – Oct</b>	<b>*2011 Nov - Dec</b>
<b>0 - 9</b>	<b>485</b>		<b>95</b>
<b>10 – 22</b>	<b>633</b>		<b>100</b>
<b>23-35</b>	<b>807</b>		<b>120</b>
<b>0 - 35</b>		<b>1,413</b>	
<b>36 – 44</b>	<b>471</b>	<b>746</b>	<b>84</b>
<b>45 – 66</b>	<b>1,216</b>	<b>1,802</b>	<b>228</b>
<b>67 – 88</b>		<b>1,173</b>	
<b>89 &amp; Over</b>		<b>471</b>	
<b>67 &amp; Over</b>	<b>1,272</b>		<b>242</b>

***Breath Alcohol Analysis***

In 2012 a total of 5,477 breath specimens were taken in Garda Stations, this is a decrease of 23.2% on 2011. 4,884 of the specimens were certified; 77.1% were over the legal limit. Of the total number of breath tests registered, 593 tests did not result in a statement under Section 13 of the Road Traffic Act being provided.

***Testing & Visits to Garda Stations***

Bureau Scientists visited and tested each instrument that had been previously installed in Garda stations on at least two occasions during 2012. Bureau scientists have made in excess of one hundred and fifty four visits to EBT instrument locations throughout Ireland in the year. These visits covered testing and maintenance and are an essential element in assuring the quality of breath alcohol test results for evidential purposes.

### ***Mean Alcohol Level in Breath***

The mean alcohol level in breath was 46.6µg/100ml.

### ***Analysis of Time***

Of the total number of breath specimens received 70% were provided between the hours of 9.00 p.m. and 6.00 a.m., 12.5% between 4.00 p.m. and 9.00 p.m., and the remaining 17.5% between 6.00 a.m. and 4.00 p.m.

### ***Twice Over the Limit of 22 µg /100ml (Breath)***

50.9% of the number of breath specimens provided were over twice this limit.

### ***Gender in Evidential Breath Testing Specimens***

With the introduction of the 2010 RTA provision was made for increasing the knowledge profile of the drink or drugged driver. 2012 is the first full year in which the Bureau can analyse the data.

**Table 8**

<b>Gender</b>	<b>2012</b>	
<b>Male</b>	<b>4,277</b>	<b>87.6%</b>
<b>Female</b>	<b>607</b>	<b>12.4%</b>
<b>Not Stated</b>	<b>0</b>	<b>0%</b>

**Table 9**

### **Age Profile of Specimens - Breath Alcohol Analysis**

<b>Age Profile</b>	<b>2012</b>	
<b>≤ 24</b>	<b>957</b>	<b>19.6%</b>
<b>25 – 44</b>	<b>2,683</b>	<b>54.9%</b>
<b>45 – 54</b>	<b>718</b>	<b>14.7%</b>
<b>≥55</b>	<b>524</b>	<b>10.7%</b>
<b>Not Stated</b>	<b>2</b>	<b>0.1%</b>

## **Professional Witness**

The area of road traffic safety enforcement and in particular driving under the influence of intoxicants (both alcohol and drugs) is the most litigated area in criminal law sphere in Ireland.

The Bureau is involved in advising on and through its scientists appearing in cases before the Courts.

During 2012 the Bureau continued to provide independent professional expert support to assist the Courts in the administration of justice. Members of Bureau staff provided expert professional evidence in twelve court cases, of which two related to blood and urine alcohol analysis. Four were legal challenges in relation to evidential breath testing and six related to drug analysis. Staff members on several occasions were on stand-by to attend court but were not required.

## **Quality Assurance**

The Medical Bureau of Road Safety maintained its ISO 17025 Accreditation in 2012 for the four areas of: Blood and urine alcohol analysis; Drug analysis; Evidential Breath Testing; and Preliminary Breath Testing for which it has accreditation. Extension to scope was applied for at the end of November 2011, for the inclusion of the confirmatory testing of cannabinoids in blood and urine specimens and for the confirmatory testing of benzodiazepines in urine specimens and was successfully achieved in 2012. The annual assessment was carried out by Irish National Accreditation Board (INAB) during May 2012, during which all key analytical procedures were extensively examined and found to meet criteria which are in compliance with ISO 17025.

## **Financial Information**

The Medical Bureau of Road Safety derives its finances from an Annual Grant out of the Vote for the Department of Transport. The total grant allocation for the Bureau for 2012 was €4,797,000. Through comprehensive ongoing budgetary monitoring the Bureau was successful in having significant savings and efficiencies in 2012. A total of €720,000 was saved and made available to the Department of Transport, Tourism and Sport for 2012.



## **Corporate Governance**

The Board of the Medical Bureau of Road Safety operates in accordance with the Code of Practice for the Governance of State Bodies. The Board is accountable to the Department of Transport, Tourism and Sport and the Department of Finance. The Board meets regularly and is responsible for the proper management of the Bureau. It makes major strategic decisions and reviews the Bureau's risk management strategy and control processes on an annual basis.

### **Board Members**

The Board of the Medical Bureau of Road Safety comprises of five members (including the Director) and is appointed by the Minister for Transport, Tourism and Sport.

<b>Name</b>	<b>Position</b>	<b>Attendance Record</b>
<b>Professor Cecily Kelleher</b>	<b>Chairman</b>	<b>3 of 4</b>
<b>Professor Denis Cusack</b>	Board Member and Director	4 of 4
<b>Mr. Declan Hayes</b>	Board Member	4 of 4
<b>Mr. Philip Joyce</b>	Board Member	3 of 4
<b>Dr. Niall McNamara</b>	Board Member	3 of 4

### **Bureau Membership and Meetings**

During 2012 the Medical Bureau of Road Safety held four meetings. These meetings were held on 29<sup>th</sup> March 2012, 21<sup>st</sup> June 2012, 27<sup>th</sup> September 2012 and 13<sup>th</sup> December 2012.

## ***Schedule of Fees and Aggregate Expenses Paid to Directors During 2012***

During 2012 the following fees were paid:

<b>Board Member</b>	<b>TYPE OF FEE</b>	<b>PAID</b>
<b>Mr. Philip Joyce, Member</b>	<b>Fee for Non-Executive members of Boards of State Bodies</b>	<b>€6,300</b>
<b>Dr. Niall McNamara</b>	<b>Fee for Non-Executive members of Boards of State Bodies</b>	<b>€6,300</b>

### ***Compliance***

The Board is pleased to report that during the year ended 31<sup>st</sup> December 2012 the Medical Bureau of Road Safety complied with the relevant provisions of the Code of Practice for the Governance of State Bodies. An internal audit was performed.

### ***Ethics in Public Office Acts***

The members of the Board who held office at the 31<sup>st</sup> December 2012 had no interests for the purposes of the Ethics in Public Office Acts 1995 and 2001.

### ***Audit Committee***

The Audit Committee reviews any aspect which relates to the financial matters of the Medical Bureau of Road Safety. The committee operates under formal terms of reference. The meetings are normally attended by the members of the Committee and it reports to the Board on a bi-annual basis.

### ***External Financial Audit***

The Comptroller and Auditor General performed the annual audit of the 2011 Financial Statements during 2012. No significant issues were raised during the course of the audit.

### ***Internal Audit***

The internal audit function is a key element in informing the Board on the effectiveness of the system of internal financial control. The internal auditor operates in accordance with the Code of Practice for the Governance of State Bodies. Internal Audit report was prepared in relation to 2012.



### ***Procurement***

Competitive tendering is the normal policy utilised by the Board of the Medical Bureau of Road Safety in the procurement process. It affirms that it complied with procurement procedures and relevant EU Directives as set out in the Code of Practice for the Governance of State Bodies during 2012.

### ***Strategic Planning***

The Bureau compiled its Annual Strategic Plan for 2013 and also its Five Year Strategic Plan 2013 -2017 and both strategies were forwarded to the Minister. The Plans set out the Bureau's key objectives over the coming year and years in conjunction with its key actions to achieve these objectives. Both strategies can be viewed on the Bureau's website.

### ***Prompt Payment of Account***

The Board acknowledges their responsibility for ensuring compliance in relation to the Prompt Payment of Accounts Act. Under an agreement with University College Dublin, suppliers are paid in the first instance by the College which is then reimbursed by the Bureau. It is the policy of the Medical Bureau of Road Safety to ensure that all invoices are paid promptly. University College Dublin, as a public sector body, is required to comply with the requirements of the Act in relation to payments to suppliers for the supply of goods or services and therefore has very strict procedures in operation.

In the case of a small number of suppliers, when the Bureau receives an invoice it will issue a payment by cheque directly to the supplier. These controls in relation to processing of invoices and disputes can only provide reasonable and not absolute assurance against material non-compliance with the Act.

## **STATEMENT ON INTERNAL FINANCIAL CONTROL**

### **Responsibility of Internal Control**

On behalf of the Members of the Medical Bureau of Road Safety, I acknowledge our responsibility for ensuring that an effective system of internal financial control is maintained and operated.

The system can only provide reasonable and not absolute assurance that assets are safeguarded, transactions authorised and properly recorded, and that material errors or other irregularities are either prevented or would be detected in a timely period.

### **Key Control Procedures**

The Bureau has set out the following key procedures designed to provide effective internal financial control within the Bureau. The Bureau has agreed that the Director and staff are responsible for operational matters. The Director reports to the Bureau at its meetings of which four were held in 2012.

The Bureau has set out its financial procedures and delegation practices to ensure a transparent control environment appropriate to a small semi-state agency. The Bureau established an Audit Committee during 2003 to support quality assurance of financial procedures. The Committee held two meetings during 2012 and reported to the Bureau.

The system of internal financial control is based on a framework of regular management information, administrative procedures including segregation of duties, and a system of delegation and accountability. In particular it includes:

- Comprehensive budgeting system with an annual budget which is reviewed and agreed by the Bureau.
- Regular reviews by the Bureau of periodic and annual financial reports which indicate financial performance against forecasts.
- Setting targets to measure operational financial and other performance.
- Formal project management disciplines.

In accordance with the Code of Practice for the Governance of State Bodies an Internal Auditor was appointed in 2006. The Internal Auditor carried out an independent review of the accounts for 2012.

### **Annual Review of Controls**

The Bureau did carry out a review of the effectiveness of its system of internal financial control in 2012.

Professor Cecily Kelleher,  
Chairperson.

## **Freedom of Information**

During 2012 the Bureau received one request which was dealt with outside of Freedom of Information.

## **Staffing**

The Bureau continued in 2012 to operate within its Employment Control Framework complement.

During the year there were several changes in Bureau staffing following a number of retirements and resignations.

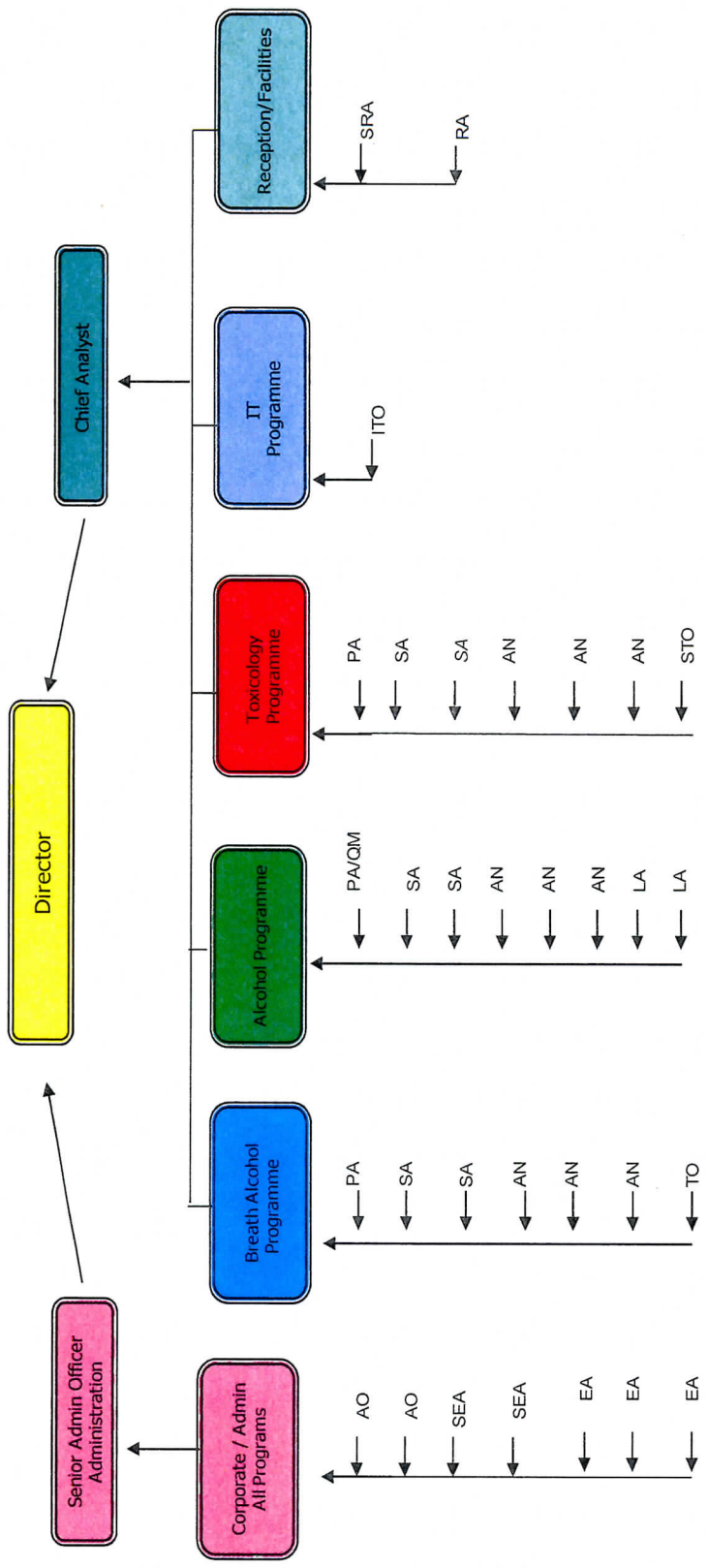
All staff continued to demonstrate flexibility to ensure that all programmes were maintained and that the additional projects were given the assistance required.

## ***Internships***

Two graduates were appointed internships under the Government's Job Bridge National Internship Scheme. They were allocated within the Blood and Urine Drug Analysis Programme on different projects.







- PA = Principal Analyst
- QM = Quality Manager
- AO = Administrative Officer
- SA = Senior Analyst
- AN = Analyst
- SEA = Senior Executive Assistant
- EA = Executive Assistant
- STO = Senior Technical Officer
- TO = Technical Officer
- LA = Lab Attendant
- ITO = IT Officer
- SRA = Senior Reception Attendant
- RA = Reception Attendant

## Conferences, Training & Seminar Presentations

1. A Senior Technical Officer attended a half day course in Chemical Agents & Risk Assessment on 13<sup>th</sup> January 2012 in UCD.
2. Two staff members attended a half-day Hazardous Waste Awareness course provided by SRCL on the 19<sup>th</sup> January, 2012 in Conway Institute UCD.
3. Three Senior Analysts and an Analyst attended a LIMS-Nautilius Administrator Training Course for two days on 1<sup>st</sup> and 2<sup>nd</sup> of February, 2012 in Medical Bureau of Road Safety (MBRS).
4. A Principal Analyst attended a one-day Meeting of the UK & Ireland Association for Forensic Toxicologists (UKIAFT) on 10<sup>th</sup> February 2012 in Imperial College London, Charing Cross Campus, London W68RP, England.
5. A Principal Analyst attended the CEN Standards Meeting for Breath Testing (PBT) from the 13<sup>th</sup> to 14<sup>th</sup> February, 2012 in AFNOR, St.Denis, Paris, France.
6. Two Senior Analysts attended a one-day course on Managing and Motivating in Tough Times on 14<sup>th</sup> of February, 2012 in UCD, Belfield, Dublin 4.
7. A Principal Analyst attended a one-day Course on Negotiating Skills on 21<sup>st</sup> of February, 2012 in UCD Belfield, Dublin 4.
8. Seven staff members attended a one-day Courtroom Skills Course on 23<sup>rd</sup> February, 2012 in MBRS.
9. One staff member attended a one-day Occupational First Aid Course on 14<sup>th</sup> March, 2012 in UCD, Belfield, Dublin 4.
10. One staff member attended a one-day Safe Handling and Use of Industrial Gases Course on 20<sup>th</sup> March, 2012 held in BOC, Bluebell, Dublin 12.
11. Four staff members attended an Introduction to SQL Course on the 29<sup>th</sup> & 30<sup>th</sup> March, 2012 at OLAS, Stillorgan, Co.Dublin.
12. Four staff members attended a one-day Infomaker Reporting Course on 3<sup>rd</sup> April, 2012 in MBRS.
13. Two Analysts attended a one-day Course on Statistics on 3<sup>rd</sup> April, 2012 in UCD, Belfield, Dublin 4.

14. A Senior Analyst attended a two-day Train the Trainer course from 23<sup>rd</sup> to 24<sup>th</sup> April, 2012 in UCD, Belfield, Dublin 4.
15. The Chief Analyst attended a one-day Road Safety Authority International Conference on Readivist Behaviour and Driver Rehabilitation Programme on 16<sup>th</sup> April 2012 in Dublin Castle, Dublin.
16. A staff member attended a one-day Improve Your Communication Skills Course on 3<sup>rd</sup> May, 2012 in UCD, Belfield, Dublin 4.
17. Four staff members attended a half-day LIMS Configured System Training Course on 4<sup>th</sup> May, 2012 in MBRS.
18. The Chief Analyst, Principal Analyst and an Analyst attended a one-day Irish Mass Spectrometry Society Conference on 9<sup>th</sup> of May 2012 at the Red Cow Hotel, Naas Road, Dublin 22.
19. The Director attended on the 11<sup>th</sup> and 12<sup>th</sup> of May 2012 a two day Faculty of Forensic and Legal Medicine Conference International Conference in Edinburgh, Scotland.
20. An Analyst attended The Borkenstein Course on Alcohol & Traffic Safety from 13<sup>th</sup> to 18<sup>th</sup> May 2012 held in Indiana University, Bloomington, Indiana, USA.
21. The Director attended a one day European Transport Safety Council Road Safety Seminar on the 24<sup>th</sup> May 2012 in Dublin.
22. The Director and a Principal Analyst attended a half-day meeting on 24<sup>th</sup> May, 2012 on Alcohol Interlock Devices organised by the Road Safety Authority in the Canadian Embassy, Dublin.
23. The Chief Analyst, a Principal Analyst and seven staff members attended a short course provided by the Medical Library on End Note on 24<sup>th</sup> May, 2012 in UCD, Belfield, Dublin 4.
24. Two staff members attended a one-day course on Safety in the Laboratory on 12<sup>th</sup> June, 2012 in VWR, Blanchardstown, Dublin 15.
25. The Director & the Chief Analyst attended a one-day Road Safety Authority Stakeholder Strategy Workshop on 19<sup>th</sup> June, 2012 at Griffith College, South Circular Road, Dublin 8.



26. A staff member attended a one-day course on Excel Core Skills on 19<sup>th</sup> June, 2012 in UCD, Belfield, Dublin 4.
27. A Senior Analyst attended a two-day Supervisor and Team Leader Skills Course from 25<sup>th</sup> to 26<sup>th</sup> June, 2012 in UCD, Belfield, Dublin 4.
28. A Senior Analyst attended the Society for Forensic Toxicology (SOFT) Conference from 1<sup>st</sup> to 6<sup>th</sup> of July, 2012 in Boston, USA.
29. The Director attended the International Academy of Legal Medicine 22<sup>nd</sup> Congress in Istanbul, Turkey from the 5<sup>th</sup> to 7<sup>th</sup> July 2013.
30. A Principal Analyst and 2 Senior Analysts attended a UKIAFT Conference on 30<sup>th</sup> and 31<sup>st</sup> August 2012 in Queens University, Belfast, Northern Ireland.
31. A Principal Analyst attended a one-day Seminar on Agilent Product Update on 6<sup>th</sup> September, 2012 in the Citywest Hotel, Saggart, Co.Dublin.
32. Four staff members attended a one-day LIMS Training course on 10<sup>th</sup> September, 2012 in MBRS.
33. Two Senior Analysts, three Analysts and two Interns attended the LCMS ABSCIEX Training Courses from 11<sup>th</sup> to 13<sup>th</sup> September, 2012 in MBRS.
34. A Senior Analyst attended an ISTQB Foundation Course in Software Testing from 24<sup>th</sup> to 26<sup>th</sup> of September, 2012 at Inspire Quality Services, Clyde Court Hotel, Lansdowne Road, Dublin 4.
35. The Quality Manager attended a one-day Quality Manger Group Meeting on 2<sup>nd</sup> October, 2012 in the State Labatory, Celbridge, Co.Kildare.
36. An Analyst attended The Borkenstein Course on The Effects of Drugs on Human Performance and Behaviour held in Philadelphia from 1<sup>st</sup> to 5<sup>th</sup> October, 2012.
37. A Senior Analyst attended a one-day Introduction to Project Management Course on 12<sup>th</sup> October, 2012 in UCD, Belfield, Dublin 4.
38. A Senior Analyst attended a Thermo Informatics World 2012 Conference from 15<sup>th</sup> to 18<sup>th</sup> October 2012 at Marriott Amsterdam, Stadhouderskade 12, Amsterdam, 1055 ES, Amsterdam.
39. A Senior Analyst attended a one-day Communication Skills Course on 17<sup>th</sup> October, 2012 in UCD, Belfield, Dublin 4.

40. The Director attended the national meeting of the Royal College of Physicians of Ireland Road Traffic Medicine Clinical on the 23<sup>rd</sup> October 2013 in the RCPI, Dublin.
41. An Analyst attended a one-day LC Troubleshooting Course on 23<sup>rd</sup> October, 2012 in Glenroyal Hotel, Maynooth, Co.Kildare.
42. Two Interns attended a one-day Seminar provided by Phenomenex on HLC/UHPLC Method Development on 7<sup>th</sup> November, 2012 in Red Cow Hotel, Naas Road, Dublin.
43. Seven staff members and two Interns attended a half-day Seminar on Waters Product Update on 8<sup>th</sup> November, 2012 in MBRS.
44. Two staff members attended a Lecture on Energy and Environmental Management in the Laboratory on 13<sup>th</sup> of November, 2012 in UCD, Belfield, Dublin 4.
45. Twenty one staff members attended a short Introduction course on E-Procurement held on 22<sup>nd</sup> November and seven staff members attended a follow up course on E-Procurement 18<sup>th</sup> December, 2012 in MBRS.
46. Two Analysts attended a one day Seminar on Metrology in Chemistry on 28<sup>th</sup> November, 2012 in State Laboratory, Celbridge, Co.Kildare.
47. A Principal Analyst attended an EMCDDA – DUID Research Guideline Review meeting for one and a half days on 3<sup>rd</sup> & 4<sup>th</sup> December, 2012 in EMCDDA Lisbon, Portugal.
48. A staff member commenced a one year part-time Certificate Course in Health and Safety in October, 2012 in UCD, Belfield, Dublin 4.
49. A Technical Officer continued a part-time M.Eng Course in Electronic Systems Masters Degree from January to September 2012 in Dublin City University, Dublin 9.
50. A Senior Analyst continued a two year part-time course G.Dip in Information Technology which commenced 26<sup>th</sup> September 2011 in Dublin City University, Dublin 9.

## Research Publication 2012

The Department of Transport, Tourism and Sport (DTTAS), on behalf of the Minister, wrote to the Medical Bureau of Road Safety (MBRS), in January 2012, stating that the "DTTAS wanted to gain a greater knowledge of the present thinking and developments in the area of detection of drug driving". The DTTAS requested that the MBRS "undertake a considered study on all aspects of roadside drug testing, including reference to and analysis of any equipment currently in use or anticipated to be introduced for carrying out such tests and indication of the likely timescale involved in reaching an acceptable solution to the problem".

A comprehensive study was undertaken by the Medical Bureau of Road Safety and a report titled "Report on Roadside Drug Testing and Equipment and Related Matters" was published.

## Legal Disclaimer

The descriptions and statistics contained within this report are of a condensed and general informative nature only. They should not, by themselves, be relied upon in determining legal rights or other decisions under the Road Traffic Acts. Readers and users are advised to verify with their legal advisors any information on which they may wish to rely.

During 2012 there were several changes in Bureau staffing following a number of retirements and resignations.



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**Professor Denis A. Cusack,  
Director.**



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**Professor Cecily Kelleher  
Chairman.**